

Draft 2026 Rate of Return Instrument

Explanatory Statement

29 May 2026

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Contents

1	Executive summary	1
2	Our review process	6
2.1	Invitation for submissions	7
2.2	Review timeline	8
3	How the RORI contributes to the legislative requirements and objectives	9
3.1	Legislative requirements	9
3.2	How the RORI contributes to the legislative objectives	10
4	Our decision-making framework	14
5	Rate of return: structure and approach to equity returns	16
5.1	Draft decision	16
5.2	AER analysis and consideration	16
6	Equity beta	20
6.1	Draft decision	20
6.2	Comparator set	22
6.3	Other considerations	39
6.4	Empirical estimates	43
6.5	Point estimate	48
7	Trailing average approach to estimating the return on debt	51
7.1	Draft decision	51
7.2	What has changed since the 2022 RORI review	52
7.3	AER analysis	62
7.4	Options considered	71
7.5	AER consideration	73
8	Choice of third-party yield data providers	75
8.1	Draft decision	75
8.2	What has changed since the 2022 RORI review	75
8.3	AER analysis	78
8.4	Options considered	80
8.5	AER consideration	81
9	Risk-free rate	83
9.1	Draft decision	83
9.2	AER analysis and consideration	85
10	Market risk premium	91
10.1	Draft decision	91
10.2	AER analysis and consideration	92
11	Return on debt approach	102
11.1	Draft decision	102

11.2	AER analysis and consideration.....	102
12	Gearing ratio	114
12.1	Draft decision.....	114
12.2	AER analysis and consideration.....	115
13	Imputation tax credits	121
13.1	Draft decision.....	121
13.2	AER analysis and consideration.....	122
14	Overall rate of return cross-checks.....	125
14.1	Draft decision.....	125
14.2	AER analysis and consideration.....	127
Appendix A: List of submissions		141
Appendix B: Summary of submissions		142
Glossary.....		150

1 Executive summary

The Australian Energy Regulator (AER) exists to ensure energy consumers are better off, now and in the future. The AER's role is to promote the long-term interests of consumers with respect to the price, quality and reliability of energy services for Australia as it transitions to net zero emissions.

A key component of the prices that regulated energy network service providers charge is the rate of return they recover for their capital investments. Energy networks are capital-intensive businesses, and the return on capital is typically around half of their revenue. National energy laws regulate the operation of energy networks, including the rate of return they can recover for their capital investments. This is the purpose of the Rate of Return Instrument (RORI).

This draft decision Explanatory Statement sets out our reasoning for the approach we propose to adopt in the 2026 RORI. The draft 2026 RORI is a separate document that this document accompanies, and which specifies the methods, formulae and data to be used to calculate the rate of return.

Under the National Electricity Law (NEL)¹ and National Gas Law (NGL)², the AER is required to review the RORI every four years. The RORI specifies how the AER will determine the allowed rate of return on capital invested in regulated electricity and gas networks, which influences network revenues and, ultimately, the prices paid by consumers.

The draft 2026 RORI builds on the extensive stakeholder engagement and expert analysis undertaken in the 2018³ and 2022⁴ RORI reviews. The RORI framework has matured over successive review cycles, providing a stable foundation for a more targeted approach to the 2026 RORI review. Accordingly, our August 2025 discussion paper⁵ proposed that this review focus on three key areas where further analysis is warranted: the estimation of equity beta; the trailing average approach to estimating the return on debt; and the reintroduction of the Reserve Bank of Australia's (RBA) yield curves using alternative swap data. For all other RORI-related parameters, we have considered whether a case for change exists and, in the absence of new or compelling evidence, have retained the approaches that were extensively investigated and adopted in the 2022 RORI.

We invite stakeholders to make written submissions on all aspects of our draft decision on the 2026 RORI by **31 July 2026**.

¹ NEL, Division 1B, s. 18F-18Y.

² NGL, Division 1A, s. 30A-30T.

³ <https://www.aer.gov.au/industry/registers/resources/guidelines/rate-return-instrument-2018>

⁴ <https://www.aer.gov.au/industry/registers/resources/guidelines/rate-return-instrument-2022>

⁵ AER, *2026 Review Discussion Paper*, 4 August 2025.

Equity beta

Our draft decision is to reduce the equity beta value from 0.6 to 0.55 for the 2026 RORI. This is based on our view that an appropriate range of equity beta estimates is between 0.4 and 0.7, and our consideration of where the equity beta point estimate could be likely to sit within this range.

We maintain the core aspects of our approach to estimating equity beta from the 2022 RORI, except for the comparator set of firms which we reviewed in detail.

We have historically relied on a comparator set of 9 listed Australian network service providers, but 8 of these firms have been delisted from the Australian Securities Exchange over the years. We consider international energy firms to be the most viable alternative to our domestic firms, but they are imperfect substitutes.

Our approach involved first identifying key differences between international energy firms and domestic network service providers. We then developed a new sample of international energy firms, using appropriate filters and adjustments to correct for these differences. However, these measures were only partially adequate, and some residual differences remain that could not be corrected for.

We will continue to use the Brealey-Myers formula to de-lever and re-lever raw estimates to a benchmark gearing of 60%. To adjust for the difference in gearing between Australian network service providers and international firms, we will introduce a debt beta value of 0.1 to the formula for all firms.

We assessed the relative merits of our domestic comparator set and those of the new international sample we developed. We consider it appropriate to use both domestic and international data, but to not rely solely on either because both samples have their limitations. Overall, we consider that the relative merits of using domestic data to inform our point estimate, notwithstanding their largely historical nature, outweigh those of using international data at this time.

As discussed in Chapter 6, we consider that an equity beta value of 0.55, from a possible range of estimates of between 0.4 to 0.7 to be appropriate for the 2026 RORI. We consider that this adjustment to the equity beta value can be accommodated without inhibiting future capital investment needs.

Comparing with our equity beta value of 0.6 from the 2022 RORI, we consider that a reduction to 0.55 is appropriate for the following reasons:

- We recognise that the equity beta estimates of the majority-regulated domestic firms are below the average estimate of our domestic comparator set.
- We have refined our approach to estimating equity beta for international firms, including developing a new international sample and introducing a debt beta of 0.1, resulting in lower international estimates compared with our approach from the 2022 RORI.
- At the time of the 2022 RORI review, the 5-year estimates (which we give less weight to than the longest-period estimates) had declined for domestic firms but had significantly increased for international firms, and we considered it prudent to

maintain a value of 0.6.⁶ Our latest update shows that the 5-year estimates of both domestic (APA Group) and international firms have declined and are now below their longest-period estimates.

Trailing average approach to estimating the return on debt

Our draft decision is to retain the simple trailing average approach for estimating the return on debt, as per the 2022 RORI.

In reaching this decision, key issues have been whether a weighted trailing average approach is appropriate in circumstances where network service providers raise materially larger volumes of debt than implicitly assumed under the simple trailing average approach, and where current interest rates differ materially to the historical rates reflected in the simple trailing average.

We gave careful consideration to whether a weighted trailing average approach would better reflect borrowing costs for network service providers undertaking large capital programs as part of the energy transition. Several network service providers and other stakeholders expressed in principle support for a weighted trailing average approach. The Eligible Experts for the 2026 RORI review also identified challenges in estimating the return on debt under the simple trailing average in certain circumstances.

While we found that the implicit assumption that businesses raise around 10% debt in each year may not always hold, we also found that only a small number of large businesses with large investment programs are materially impacted. In these circumstances, the best way to address this issue would be through a targeted mechanism applying a weighted trailing average to these materially impacted businesses rather than a broad change in approach. However, stakeholders and the Eligible Experts broadly agreed that such an approach would be problematic. Any threshold or trigger to apply a weighted trailing average would be somewhat arbitrary, introduce unnecessary complexity and create incentives for strategic behaviour to hit or avoid the trigger.

Applying the weighted trailing average more broadly is also problematic. We consider the existing simple trailing average is likely below the long run equilibrium/neutral interest rate, reflecting a prolonged period of unusually low interest rates, as compared to current interest rates which are higher than those embedded in the simple trailing average. In these circumstances, a move to a weighted trailing average now would be expected to increase the allowed return on debt over the next 10 years and, therefore, not be cost neutral to consumers.

Taken together, this evidence suggests that while a weighted trailing average approach may address certain limitations of the simple trailing average framework, on balance, there is not a strong case for changing the methodology from a simple trailing average approach at this time.

Choice of third-party yield data providers

Our draft decision is to reinstate the use of yield curve data published by the RBA, alongside yield curve data from Bloomberg and Refinitiv/LSEG. This represents no change from the

⁶ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp. 171-172.

overall approach set in the 2022 RORI, other than a refinement to the extrapolation method used to extend the RBA yield curves to a 10-year maturity.

A key issue in this review has been the appropriate method for incorporating the RBA's published yield curve data following the removal of spread-to-swap data from its F3 Statistical Table in November 2023. We have carefully considered alternative extrapolation approaches, while maintaining consistency with the existing return on debt framework. In doing so, we assessed five alternative extrapolation options, including approaches based on swap rates, Commonwealth Government Securities (CGS), and direct yield-based extrapolation.

Consistent with the 2022 RORI, we will continue to estimate the return on debt using third-party yield curve data from multiple independent providers. We consider that maintaining a multi-source approach supports robust and reliable estimates. Stakeholders broadly supported the reintroduction of RBA data and the continued use of multiple data sources.

While we acknowledge that alternative extrapolation approaches have theoretical merit, our analysis indicates that some methods introduce either term-matching issues or small biases due to interpolation assumptions. On balance, we consider that a spread-to-CGS extrapolation approach provides the most appropriate balance of simplicity, transparency and accuracy, while remaining fully reliant on publicly available data.

Overall, we consider that reintroducing the RBA yield curve data using the revised extrapolation approach, alongside yield data from Bloomberg and Refinitiv/LSEG, will improve the robustness of our return on debt estimates, while maintaining consistency with the 2022 approach.

Market risk premium

On the market risk premium (MRP), our methodological approach is settled. Although, after having assessed a range of evidence, including historical excess returns, forward looking estimates and other market indicators, we have selected a point estimate of 6.1% for our draft decision from within an unchanged range of possible estimates. This is down from 6.2% in the 2022 RORI.

Other matters

For all other remaining parameters, we are satisfied the approaches established in the 2022 RORI remain appropriate and that no change to our methodologies for setting these parameters is warranted. We did not identify new evidence or arguments in stakeholder submissions to justify reopening the methodologies for estimating these parameters at this time.

For imputation credits (γ), similarly, while our methodological approach is settled, its application has resulted in an update to the point estimate from 0.57 in the 2022 RORI to 0.58 in this draft decision.

In terms of inflation, Energy Consumers Australia and other consumer organisations raised concerns about the treatment of inflation in the context of its impact on the rate of return and sought for it to be considered further in this review.⁷ We do not consider inflation to be a rate of return issue, but a broader regulatory framework issue going to how a network service

⁷ ECA, *2026 Rate of Return Instrument Discussion Paper*, December 2025.

provider's regulatory asset base is indexed. Accordingly, we consider inflation is outside the scope of the 2026 RORl review. We will continue to give consideration to whether further work in this area is warranted.

Estimated impact of this draft decision

The combined effect of the changes to the values for equity beta and the MRP under this draft decision, if made, are estimated to deliver an aggregate reduction in regulated revenues of around \$1.1 billion via regulatory revenue determinations to be set under the 2026 RORl, all else equal.⁸

⁸ The estimated impact for each year is calculated by multiplying the forecast closing equity proportion of the RAB in the prior year by the total reduction in the equity risk premium of 0.37 percentage points. The total impact is the sum of the impacts in each year. Where forecasts are not available, we have assumed nominal RAB growth of 4% per annum.

2 Our review process

The Rate of Return Instrument (RORI) sets out the methodology the Australian Energy Regulator (AER) uses to determine the allowed rate of return for regulated electricity and gas networks. It specifies the way to calculate the rate of return on capital and value of imputation credits, expressed as mathematical formulae, and how we will obtain inputs for those formulae. The RORI is binding on network businesses and the AER.

The rate of return is a key driver of network revenues and, ultimately, prices paid by consumers. Small changes in the rate of return or its methodology can materially affect both consumers and regulated businesses. The National Electricity Law (NEL) and National Gas Law (NGL), therefore, require the AER to review and make the RORI every four years through a structured and transparent process.

Building on previous reviews, including those undertaken to develop the 2018⁹ and 2022¹⁰ RORIs, we proposed a more targeted approach for the 2026 RORI review given the extensive engagement and expert assessment of the issues previously undertaken. The 2026 RORI review focuses on a limited number of key issues, while maintaining stability in established elements of the framework. This approach is intended to support a robust, evidence-based outcome and effective stakeholder engagement.

On 28 March 2025, as a first step towards making the 2026 RORI, we published a review process paper.¹¹ This paper outlined our proposed approach, consultation framework and indicative timeline for the 2026 RORI review.

On 4 August 2025, we formally started our 2026 RORI review with the publication of a discussion paper.¹² This paper proposed three key issues for review, outlined our proposed approaches, and drew on previous RORI reviews and earlier stakeholder engagement. We held a public forum on 26 August 2025 to support early engagement and provide stakeholders with an opportunity to discuss the issues raised.

To support our consideration of the issues, we established a Consumer Reference Group (CRG) to provide a consumer perspective and inform our decision making.¹³ The three-member CRG operates independently in determining how it undertakes its work. The CRG remains active for the life of the review.

We also appointed a panel of three Eligible Experts to examine the key issues and provide independent technical advice.¹⁴ The Eligible Experts assessed our proposed approaches and identified areas of agreement and disagreement amongst the panel. We published the

⁹ <https://www.aer.gov.au/industry/registers/resources/guidelines/rate-return-instrument-2018>

¹⁰ <https://www.aer.gov.au/industry/registers/resources/guidelines/rate-return-instrument-2022>

¹¹ <https://www.aer.gov.au/industry/registers/resources/guidelines/rate-return-instrument-2026/process-paper>

¹² <https://www.aer.gov.au/industry/registers/resources/guidelines/rate-return-instrument-2026/discussion-paper>

¹³ <https://www.aer.gov.au/industry/registers/resources/guidelines/rate-return-instrument-2026/reference-groups-and-panels>

¹⁴ <https://www.aer.gov.au/industry/registers/resources/guidelines/rate-return-instrument-2026/eligible-experts-report>

Eligible Experts' report on 24 November 2025 and held a public forum on 4 December 2025.¹⁵ The panel of Eligible Experts has since been disbanded.

We invited stakeholder submissions on our discussion paper and the Eligible Experts' report. We received 18 submissions from consumer, industry and government organisations. We have also met with several stakeholders throughout this review to explain our review process and preliminary positions, and to better understand their views on the key issues as expressed in submissions. We appreciate the engagement of stakeholders in this review and the detailed submissions received.

Following the publication of this draft 2026 RORI, we will hold a public forum on **22 June 2026** to explain our draft decision and facilitate further stakeholder engagement.

We will also provide our draft decision to an Independent Panel to independently review the draft 2026 RORI and provide a written report to the AER on its findings by **17 July 2026**. We will publish the Panel's report, including its assessment of the evidence and reasons supporting the RORI.

Submissions on our draft decision are invited by no later than **31 July 2026**. We also welcome any stakeholder requests for meetings during this period to discuss their preliminary views and/or seek clarity around any aspect of the draft decision.

Following the close of submissions, we will consider all stakeholder submissions, the Independent Panel's report, and all relevant evidence. We expect to publish the finalised 2026 RORI in **December 2026**.

2.1 Invitation for submissions

Interested stakeholders are invited to make a submission on the draft 2026 RORI by no later than **31 July 2026**.

Stakeholders are also invited to register their interest [here](#) for an online public forum on the draft decision on **22 June 2026**.

Submissions on the draft decision should be sent to RateOfReturn@aer.gov.au and addressed to Gavin Fox, General Manager Network Pricing. Alternatively, you can mail submissions to GPO Box 3131, Canberra ACT 2601.

Submissions should be in Microsoft Word or another text readable document format.

We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process. We will treat submissions as public documents unless otherwise requested.

Parties wishing to submit confidential information should:

- Clearly identify the information that is the subject of the confidential claim.
- Provide a non-confidential version of the submission in a form suitable for publication.

¹⁵ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025.

All non-confidential submissions will be published on our website.

2.2 Review timeline

Key milestones and indicative dates for the 2026 RORI review are presented in Table 2.1.

Table 2.1 Key milestones and indicative dates for the 2026 RORI review

Key milestone	Indicative date
2026 RORI review process paper – published (for information)	28 March 2025
2026 RORI discussion paper – published (submissions invited)	4 August 2025
Public forum on AER discussion paper	26 August 2025
Eligible Experts' report – published (submissions invited)	24 November 2025
Public forum on Eligible Experts' report	4 December 2025
Submissions closed on AER discussion paper and Eligible Experts' report	19 December 2025
Draft 2026 RORI & Explanatory Statement – published (submissions invited)	29 May 2026
Public forum on draft 2026 RORI	22 June 2026
Independent Panel's report – publish (for information)	17 July 2026
Submissions close on draft 2026 RORI & Explanatory Statement	31 July 2026
Finalised 2026 RORI & Explanatory Statement – publish	December 2026

3 How the RORI contributes to the legislative requirements and objectives

We develop and publish the Rate of Return Instrument (RORI) in accordance with the legislative framework set out in the National Electricity Law (NEL) and National Gas Law (NGL). Under this legislative framework, we must review our RORI, and make a new one to replace the reviewed RORI, every four years.¹⁶ The RORI must contribute to the achievement of the legislative objectives.¹⁷

In section 3.1, we describe the legislative requirements that apply to the making of the RORI.

In section 3.2, we set out how the draft 2026 RORI contributes to the achievement of the National Electricity Objective (NEO) and National Gas Objective (NGO).

3.1 Legislative requirements

The RORI is made under the NEL and NGL, which provide the legal framework that the AER must follow in each RORI review.¹⁸

The RORI is legally binding on the AER when performing its economic regulatory functions and applies to regulated electricity and gas networks when the AER makes regulatory determinations.¹⁹

Under the NEL and NGL, the AER must include in the RORI:

- how the return on capital is to be calculated
- the value of imputation credits (or the way to calculate the value).

The AER may only make a RORI if satisfied that it will, or is most likely to, contribute to achieving the NEO or NGO to the greatest degree.

The NEO and NGO (respectively) aim to promote efficient investment in, and operation and use of, energy services for the long-term interests of consumers, with respect to:

- (a) Price, quality, safety, reliability and security of supply of electricity or covered gas;
- (b) The reliability, safety and security of the national electricity system; and
- (c) The achievement of targets set by a participating jurisdiction –
 - (i) For reducing Australia’s greenhouse gas emissions; or

¹⁶ NEL, s. 18U; NGL s. 30P.

¹⁷ NEL, s. 18I(3); NGL, s. 30D(3).

¹⁸ NEL, Division 1B, s. 18F-18Y; NGL, Division 1A, s. 30A-30T.

¹⁹ NEL, s. 18H; NGL, s. 30C.

(ii) That are likely to contribute to reducing Australia’s greenhouse gas emissions.

As such, the NEO and NGO promote the efficient use of, and investment in, infrastructure.

In making the RORI, the AER must have regard to the revenue and pricing principles (RPPs),²⁰ which include ensuring service providers have a reasonable opportunity to recover efficient costs, and that pricing promotes efficient use of, and investment in, infrastructure.

The AER must also have regard to:

- (a) Advice, recommendations or submissions given by a Consumer Reference Group (CRG);
- (b) Submissions made in response to initial consultation, and the report on the outcomes of seeking expert opinions or advice;
- (c) Submissions made in response to the draft instrument; and
- (d) The report given by the Independent Panel.

The legislation sets out a structured consultation process for each RORI review, including:

- establishing a CRG to support consumer participation and publication of a discussion paper as a part of the required initial notice;²¹
- a call for nominations of Eligible Experts;²²
- publication of a draft RORI and explanatory information at least six months before the final instrument is made, including inviting and publishing stakeholder submissions;²³
- establishment of an Independent Panel to review the draft RORI and publish its report.²⁴

The final RORI must be published with explanatory information and applies to all determinations made after its commencement. A new RORI must be made every four years.²⁵

3.2 How the RORI contributes to the legislative objectives

The AER may only make a RORI if satisfied that it will, or is most likely to, contribute to the achievement of the NEO and NGO to the greatest degree. In making the draft 2026 RORI, we are satisfied that this requirement is met.

²⁰ NEL, s. 18I(5)(a); NGL, s. 30D(5)(a).

²¹ NEL, s. 18M; NGL, s. 30H.

²² NEL, s. 18M; NGL, s. 30H.

²³ NEL, s. 18O; NGL, s. 30J.

²⁴ NEL, s. 18P; NGL, s. 30K.

²⁵ NEL, s. 18Q, s. 18T s. 18U, s. 18V; NGL, s. 30L, s. 30O, s. 30Q, s. 30P.

When we made the 2022 RORI, we set out in detail our views on how it contributes to the legislative objectives. Most positions remain unchanged and underpin our draft decision for the 2026 RORI, although our draft decision reduces the equity risk premium from 3.72% to 3.36% given the reductions in the market risk premium (MRP) and equity beta parameters. Stakeholders seeking further details on the 2022 RORI should refer to Chapter 2 of the Explanatory Statement that accompanied the 2022 RORI (February 2023).²⁶

In summary, our approach contributes to the legislative objectives in the ways set out below.

Guiding principle

Our guiding principle is that the expected rate of return should be an unbiased estimate of the expected efficient return, consistent with the relevant risks involved in providing regulated network services. This principle guides our decision-making across all parameters of the Instrument.²⁷

Setting an unbiased rate of return

The NEO and NGO promote efficient investment in, and operation and use of, energy services for the long-term interests of consumers. We consider that setting an unbiased estimate of the expected efficient return, consistent with the relevant risks involved in providing regulated network services, best achieves these objectives. A rate of return that is too high may encourage over-investment, while one that is too low may lead to under-investment, and neither outcome serves the long-term interests of consumers.²⁸

Reflecting the revenue and pricing principles

The RPPs require that service providers have a reasonable opportunity to recover efficient costs, and that pricing promotes efficient use of, and investment in, infrastructure. Our approach to setting the rate of return is designed to satisfy these principles.²⁹

The Net Present Value (NPV) equals zero (NPV=0) condition

Because the regulatory regime is ex-ante, we consider that a rate of return that meets the legislative objectives must provide ex-ante compensation for efficient financing costs. This is the NPV=0 condition. It means that over the life of an investment, the expected cashflow meets all operating expenditure and corporate taxes, repays the capital invested, and provides investors with their required return on capital. The NPV=0 condition supports efficient investment by ensuring the incentive to invest is neither too high nor too low.³⁰

Promoting efficiency

We promote productive, allocative and dynamic efficiency by setting a rate of return that reflects the market cost of capital commensurate with the risks involved in providing

²⁶ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, pp. 51-79.

²⁷ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, p. 52.

²⁸ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, pp. 53-54.

²⁹ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, p. 53.

³⁰ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, p. 58.

regulated network services, and by using benchmarking and incentive regulation to drive efficient outcomes.³¹

Market cost of capital

Because the market for capital finance is competitive, an efficient network service provider (NSP) is expected to face competitive prices in the market for funds. We therefore consider efficient financing costs to be reflected in the prevailing market cost of capital for an investment with a similar degree of risk as that which applies to a service provider supplying regulated services.³²

Benchmarking and incentive regulation

We estimate a benchmark rate of return that is then applied to a specific NSP, rather than determining the returns of a NSP based on its individual circumstances. This approach drives efficient outcomes by creating the correct incentive for NSPs to retain any additional income or fund any costs from outperforming or underperforming the efficient benchmark.³³

Compensating for risk appropriately

The RPPs provide that prices should allow for a return commensurate with the regulatory and commercial risks involved in providing regulated services. We have had regard to the nature and extent of systematic risk facing regulated NSPs in setting the allowed rate of return.³⁴

Interrelationships between parameters

In setting the rate of return, we have had regard to the interrelationships between financial parameters. We have done this by considering how each parameter interacts with others, and how they collectively impact the overall decision.³⁵

A single benchmark for gas and electricity

We have adopted a single rate of return benchmark for both gas and electricity NSPs. We have not found clear evidence of material differences in systematic risk between gas and electricity networks that would justify different benchmarks.³⁶

Exercising regulatory judgement

Where there is no single correct answer, we have had regard to the available evidence to achieve the best overall decision. In doing so, we have considered whether there is a case for change from the 2022 RORI, including whether there is new evidence, having regard to stakeholder views, expert views and our own analysis. We have also had regard to the importance of stability and predictability in the regulatory framework for both investors and consumers.

³¹ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, pp. 54-56.

³² AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, pp. 58-60.

³³ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, pp. 57-58.

³⁴ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, pp. 71-72.

³⁵ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, p. 70.

³⁶ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, pp. 74-75.

Our reasoning on each parameter is set out in the relevant chapters of this Explanatory Statement for the draft 2026 RORI.

4 Our decision-making framework

To support our decision-making on the RORI as a whole, we also have regard to the following factors. These are not binding rules, but help inform our judgement and ensure our approach is transparent, consistent with economic and financial principles and suited to the regulatory context:

- alignment with sound economic and finance principles and market information
- fitness for purpose, given the regulatory task
- consistency with good practice in implementation
- use of quantitative modelling that is robust and free from arbitrary filtering
- reliance on market data that is credible, verifiable, comparable, timely and clearly sourced
- flexibility to adapt to changing market conditions and new information
- the materiality of any proposed change from the previous RORI
- the sustainability and longevity of new arrangements over time.

In making these decisions, we are mindful that some regulators have adopted a different approach to setting a rate of return. For example, some regulators have used higher estimates of the rate of return to support investment in an uncertain environment. We consider these perspectives carefully.³⁷ Our objective is to promote efficient investment in, and efficient operation and use of, energy services in the long-term interests of consumers.³⁸ To support this, we aim to determine a rate of return that is consistent with market conditions and investment risk and avoids outcomes which are systematically in favour of either service providers or consumers.³⁹

The 2022 RORI, which evolved from the 2018 RORI, was developed through an extensive consultative process. We examined each parameter in detail and also considered how the overall rate of return performed as a whole. This ensured that our decisions reflected both the evidence on individual inputs and the coherence of the overall outcome. The process included detailed modelling, advice from independent experts, input from the Consumer Reference Group (CRG) and broad stakeholder engagement. The CRG's involvement provided an important consumer perspective that helped inform how we interpreted and weighed the evidence.

³⁷ AER, *Rate of return and assessing the long-term interests of consumers - Position paper*, 21 May 2021, p. 10.

³⁸ NEL, s. 7; NGL, s. 23.

³⁹ The NEO contains an additional objective of the reliability, safety and security of network system: see NEL s.7.

Overall, we consider the 2022 RORI has generally performed well and has supported the long-term interest of consumers, based on the following observations:

- implementation – the RORI has been implemented without difficulty across network determinations and has been applied consistently
- broad stakeholder confidence – stakeholders have generally accepted the RORI outcomes, with limited calls for changes to the framework
- strong development process – the RORI was developed through a transparent and evidence-based process, drawing on detailed modelling, expert advice and broad consultation
- regulatory certainty – the RORI provides a stable and predictable basis for investment, which supports long-term planning by network businesses and investors
- balanced outcome – the overall rate of return reflects a balanced assessment of data, modelling and stakeholder views, and avoids outcomes that favour either service providers or consumers.

While the 2022 RORI has remained broadly fit for purpose and has provided a balanced and stable foundation for estimating the rate of return, in this review we have considered opportunities for making further refinements that advance the long-term interest of consumers.

In our discussion paper⁴⁰, we proposed that this review focus on three key areas where further analysis is warranted: the estimation of equity beta; the trailing average approach to estimating the return on debt; and the reintroduction of the Reserve Bank of Australia's yield curves using alternative swap data.

For all other RORI-related parameters, we have considered whether a case for change exists and, in the absence of new or compelling evidence, have retained the approaches that were extensively investigated and adopted in the 2022 RORI.

⁴⁰ AER, *2026 Rate of Return Instrument Review Discussion Paper*, 4 August 2025.

5 Rate of return: structure and approach to equity returns

In this section, we set out how we will estimate a rate of return that achieves the legislative requirements and objectives set out in Chapter 3.

5.1 Draft decision

Our draft decision is to maintain our current approach to estimate the rate of return using a nominal vanilla weighted average cost of capital (WACC) formula.

We will continue to estimate the return on equity using the Sharpe-Lintner Capital Asset Pricing Model (SL CAPM) as our foundation model.⁴¹ The SL CAPM relies on three inputs: the market risk premium (MRP); equity beta; and the risk-free rate. The MRP and equity beta are fixed for the four-year RORI period, while the risk-free rate is determined by a formula using pre-defined input data.

Stakeholder submissions on our discussion paper did not contest our current approach.

5.2 AER analysis and consideration

5.2.1 Nominal, vanilla, weighted average cost of capital

Our draft decision is to determine the benchmark allowed rate of return for a regulatory year as a weighted average of the return on equity for the regulatory period in which that regulatory year occurs and the return on debt for that regulatory year, weighted by our benchmark gearing ratio. The rate of return is calculated as follows:

Equation 5.1 Rate of return

$$WACC = E(k^e) \cdot (1 - G) + E(k^d) \cdot G$$

Where:

- $E(k^e)$ = the expected return on equity
- $E(k^d)$ = the expected return on debt
- G = the gearing ratio, or the proportion of debt in total financing.

We discuss our approach to the return on equity in the section below. We discuss our approach to the return on debt and the gearing ratio in Chapters 11 and 12, respectively.

Our allowed rate of return is determined on a nominal, vanilla basis that is consistent with our estimate of the value of imputation credits.

⁴¹ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, pp. 96-104.

We consider that a nominal, vanilla, weighted average of the return on equity and return on debt, without adjustment for capital raising costs, would best contribute to achieving the legislative objectives, for the following reasons:

- The use of a weighted average of the returns on equity and debt allow for the relative risks involved in investing as an equity holder or debt holder to be reflected in the overall rate of return.
- A nominal, vanilla rate of return provides for a simpler rate of return estimation and a more transparent and detailed modelling of the impacts of inflation and tax costs on regulated cashflows. The vanilla formulation reflects expected returns to debt holders pre-tax and expected returns to equity holders post company tax.
- This has been our longstanding approach that we have applied consistently over several years. We have not received any submissions suggesting that we should change these aspects of our rate of return estimation approach.

We also estimate an allowed rate of return that does not include the transaction costs involved in raising debt and equity capital. Instead, we will continue to assess efficient compensation of these costs through expenditure allowances at each regulatory revenue determination. This is consistent with our current approach, and provides for a simpler estimate of the allowed rate of return and a more transparent and detailed modelling of capital raising transaction costs.

5.2.2 Return on equity

The return on equity is a component of the overall rate of return. Our draft decision is to continue to use the SL CAPM formula.

Under this approach, the expected return on equity is estimated as the sum of the risk-free rate and the equity risk premium (ERP). The ERP equals equity beta multiplied by the MRP, and compensates equity investors of an efficient network service provider (NSP) for the systematic risk that they bear (i.e. the portion of risk that cannot be diversified away).

The SL CAPM formula is as follows:

Equation 5.2 SL CAPM formula for return on equity

$$E(k^e) = k^f + \beta \cdot MRP$$

Where:

- $E(k^e)$ = the expected return on equity
- k^f = risk-free rate
- β = equity beta
- MRP = market risk premium, or the expected market return minus the risk-free rate.

In the 2022 RORI, we implemented a 7-step process to determine the overall approach to the return on equity.⁴² In summary:

- Steps 1 and 2 involve developing the foundation model. Stakeholders did not contest our current approach of using the SL CAPM. Therefore, we did not revisit this issue.
- Steps 3 and 6 involve developing and estimating the input parameters to the model. We discuss the equity beta, risk-free rate and MRP in later chapters.
- Steps 4, 5 and 7 involve assessing other relevant information and making a decision in the round. We consider cross-checks to our rate of return in Chapter 14.

5.2.3 Automatic application

The National Electricity Law (NEL) and National Gas Law (NGL) require us to make a binding RORI that states:

- for the rate of return on capital – the way to calculate the rate
- for the value for imputation credits – the value, or the way to calculate the value.

Where the RORI states a way to calculate the rate of return or value for imputation credits, it must provide for the same methodology to apply for all regulated NSPs. Further, the methodology must be capable of being automatically applied during the life of the RORI, without any exercise of discretion. We cannot set different methodologies, or a band of values from which we can choose, at the time of applying the RORI in a regulatory determination.

In implementing this approach, our draft decision is to continue our current approach, including calculating the rate of return as a formula, being the weighted average of the return on debt and return on equity, weighted by the gearing ratio.

For each input into this formula, we set:

- a fixed value for the benchmark gearing ratio
- the return on equity as a formula, being the SL CAPM formula which is itself made up of 3 inputs:
 - the risk-free rate as a formula based on yields on Commonwealth Government Securities (CGS)
 - a fixed value for equity beta
 - a fixed value for the MRP
- the return on debt as a formula, being the trailing average portfolio approach based on third-party debt data.

⁴² AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, pp. 96-104.

We also set a fixed value of imputation credits (γ).

Where a fixed value will be used, the precise value will be specified in the RORI to a specified number of decimal places. In determining these fixed values, we consider the relative merits of the relevant evidence used to estimate the value and the degree of uncertainty in the estimation.

Where a formula will be used to determine a value, the RORI provides that all calculations must be done in Microsoft Excel or a software program that undertakes equivalent calculations and must be unrounded.

6 Equity beta

Equity beta is a key parameter within the Sharpe-Lintner Capital Asset Pricing Model (SL CAPM) that we use to estimate the return on equity. It reflects a firm's exposure to systematic risk, which is market-wide risk common to the whole economy and cannot be eliminated through diversification. Examples of factors that influence systematic risk include the economic cycle, interest rates, inflation, wars and natural disasters. A firm's exposure to systematic risk will depend on its business activities and its level of financial leverage. For firms that we regulate, this reflects the systematic risk in providing Australian regulated energy network services.⁴³

Non-systematic risks, on the other hand, are firm-specific and can be diversified away. We consider non-systematic risks separately in the cash flows that are discounted by the rate of return, for example, in depreciation.

6.1 Draft decision

Our draft decision is for an equity beta value of 0.55 for the 2026 RORI, which represents a decrease from our current value of 0.6. This value is underpinned by appropriate range of equity beta estimates that we have assessed to be between 0.4 and 0.7.

This decrease is estimated to reduce the regulated revenues of network service providers (NSPs) by around \$940 million via regulatory revenue determinations to be set under the 2026 RORI, all else equal.⁴⁴ This is estimated to reduce the average residential customer bill by about \$8 per annum.

We maintain the core aspects of our approach to estimating equity beta from the 2022 RORI, including:

- using the ordinary least squares (OLS) regression estimator
- using weekly return intervals
- measuring over multiple estimation periods, with more weight given to the longest-period estimates and less weight given to the most recent 5-year estimates
- setting a single equity beta for regulated electricity and gas networks
- not making an adjustment for low beta bias
- not using other regulators' decisions on equity beta values to directly inform our estimates.

⁴³ NER 6.5.2(c), 6A.6.2(c) and NGR 87(3).

⁴⁴ The estimated impact for each year is calculated by multiplying the forecast closing equity proportion of the RAB in the prior year by the reduction in the equity risk premium attributable to equity beta of 0.3 percentage points. The total impact is the sum of the impacts in each year. Where forecasts are not available, we have assumed nominal RAB growth of 4% per annum.

Historically, we have relied on a comparator set of 9 listed Australian NSPs to estimate equity beta, but 8 of these firms have been delisted from the Australian Securities Exchange (ASX) over the years. We reviewed our approach to the comparator set of firms that we use, including the viability of using international energy firms as an alternative to our domestic firms. We found international data to be an imperfect substitute for domestic data.

Our approach involved first identifying key differences between international energy firms and domestic NSPs. We then developed a new sample of international energy firms, using appropriate filters and adjustments to correct for these differences. However, these measures were only partially adequate, and some residual differences remain that could not be corrected for.

We will continue to use the Brealey-Myers formula to de-lever and re-lever raw estimates to a benchmark gearing of 60%. To adjust for the difference in gearing between Australian NSPs and international firms, we will introduce a debt beta value of 0.1 to the formula for all firms.

We assessed the relative merits of our domestic comparator set and those of the new international sample we developed. We consider it appropriate to use both domestic and international data, but to not rely solely on either because both samples have their limitations. Overall, we consider that the relative merits of using domestic data to inform our point estimate, notwithstanding its largely historical nature, outweigh those of using international data at this time.

We consider an appropriate range of equity beta estimates to be between 0.4 and 0.7. This is based on our empirical equity beta estimates using data up to December 2025, which show the following:

- For our domestic comparator set, the average equity beta estimate is 0.56 over the longest period. The estimates of the 5 majority-regulated firms (AusNet Services Limited, DUET Group, Envestra Limited, GasNet Australia Group and Spark Infrastructure Group) tend to be around 0.4.
- For our international sample, the average equity beta estimate is 0.68 over the longest period. This is broadly consistent with our estimates of other international samples (as proposed by stakeholders or used by some regulators) which tend to be around 0.7.
- The 5-year equity beta estimates of both domestic (APA Group) and international firms are currently below their longest-period estimates.

Comparing with our equity beta value of 0.6 from the 2022 RORI, we consider that a reduction to 0.55 is appropriate for the following reasons:

- We recognise that the equity beta estimates of the majority-regulated domestic firms are below the average estimate of our domestic comparator set.
- We have refined our approach to estimating equity beta for international firms, including developing a new international sample and introducing a debt beta of 0.1, resulting in lower international estimates compared with our approach from the 2022 RORI.

- At the time of the 2022 RORI review, the 5-year estimates (which we give less weight to than the longest-period estimates) had declined for domestic firms but had significantly increased for international firms, and we considered it prudent to maintain a value of 0.6.⁴⁵ Our latest update shows the 5-year estimates of both domestic (APA Group) and international firms have declined and are now below their longest-period estimates.

Overall, we consider that an equity beta value of 0.55, from a possible range of estimates of between 0.4 to 0.7, to be appropriate for the 2026 RORI.

Given the limitations of the available data, we recognise the inherent uncertainty in setting a point estimate for equity beta. We welcome further views on whether an alternative to our draft decision value of 0.55 for the 2026 RORI would be more appropriate.

6.2 Comparator set

Our draft decision is to use both our domestic comparator set and a newly developed international sample to inform our point estimate. Our conclusion is that the relative merits of using our domestic sample outweigh those of using our international sample at this time.

Our domestic comparator set consists of 9 Australian regulated energy network firms that have been trading at various periods since the 1990s. With the delisting of Spark Infrastructure Group and AusNet Services, APA Group is now the only firm that is still listed. However, APA Group is not an optimal comparator because over 90% of its revenue is unregulated.

Since our methodology was first developed in 2009, we have relied primarily on our domestic comparator set in successive RORIs and related reviews. In the 2022 RORI review, we considered our comparator set appropriate at the time. While the comparator set had reduced since the 2018 RORI review, it still included the above 3 firms with at least four years of data out of the preceding five years.⁴⁶

We have also considered equity beta estimates of international energy firms in each of our decisions since 2009. Our position has been to not give significant weight to international equity beta estimates because international firms substantially differ from a pure-play Australian regulated network business, and these differences are difficult to quantify.

Since making our 2022 RORI, we have been actively considering whether any alternative approaches to estimating equity beta would be more appropriate for our 2026 RORI review.

Our discussion paper noted that a diminishing domestic sample could mean that we may not have sufficient data to reliably estimate equity beta going forward. We described four options that have previously been raised as potential alternatives to relying solely on domestic firms for estimating equity beta, including using: international energy firms; domestic non-energy infrastructure firms; other domestic firms; and accounting betas for non-listed energy networks that we regulate.⁴⁷ We found that other regulators, when faced with an inadequate

⁴⁵ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp. 171-172.

⁴⁶ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, p. 179.

⁴⁷ AER, *Rate of Return Instrument, Review discussion paper*, 4 August 2025, pp. 15-16.

domestic sample, have used international comparators, including the Economic Regulation Authority Western Australia (ERAWA), Queensland Competition Authority (QCA) and New Zealand Commerce Commission (NZCC).⁴⁸ We considered that using international energy firms is the only potentially viable option and discarded the latter three options.

Mr Kumareswaran (2026 RORI review Eligible Expert), Energy Networks Australia (ENA) and several NSP stakeholders noted our diminishing domestic comparator set and supported adopting international energy firms.⁴⁹ None of the Eligible Experts or submitting stakeholders supported the three discarded options.

We therefore focus our analysis on international energy firms in the remainder of this chapter, including: summarising the differences between international energy firms and Australian NSPs; developing a new international sample with filters and adjustments; considering the relative merits of our domestic sample and our new international sample; and discussing our approach to using domestic and international data to inform our decision on equity beta.

6.2.1 Differences between international energy firms and Australian NSPs

While we consider international energy firms to be the most viable alternative to our listed domestic firms, we note that international firms may be different to Australian NSPs in several ways. Therefore, they may be imperfect proxies for the firms that we regulate. Our discussion paper sets out these differences, notably:⁵⁰

1. Country-related differences:
 - a) Different country of operation, geography and local economy.
 - b) Different regulatory regime with different incentive structures.
2. Different operational structures:
 - a) Most international energy firms tend to be vertically integrated with generation and/or retail operations, which are likely to have higher systematic risk exposures than regulated energy networks.

⁴⁸ ERA, *Explanatory statement for the 2022 final gas rate of return instrument*, December 2022, pp.237-238; QCA, *Rate of return review, Version 4*, September 2024, pp.124-126; NZCC, *Cost of capital topic paper, Part 4 Input Methodologies Review 2023 – Final decision*, December 2023, pp.348-350.

⁴⁹ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, p.19; ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp.23-24; Ausgrid, *Submission to the AER’s 2026 RORI discussion paper*, December 2025, p.2; AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts’ report*, December 2025, p.1; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p.2; Energy Queensland, *2026 Rate of Return Instrument Review Discussion Paper*, December 2025, p.1; Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, pp.5-6; APG, AustralianSuper, IFM, *Response to AER Rate of Return Instrument Discussion Paper and Eligible Experts’ Report*, December 2025, p.1.

⁵⁰ AER, *Rate of Return Instrument, Review discussion paper*, 4 August 2025, pp. 16-18.

- b) Many international energy firms have non-energy related business segments, such as IT, telecommunications and real estate, which also may have different systematic risk exposures to that of regulated energy networks.
3. Different capital structures: international energy firms tend to have lower gearing ratios than our domestic firms.
4. Different local market indices: 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 the Australian market.

6.2.2 Developing an international sample

In the 2018 and 2022 RORIs, our international equity beta estimates – which we used as a cross-check – were based on a sample of 56 USA firms developed by CEG.⁵¹

Our discussion paper proposed to develop a new international sample of firms, including using filters and adjustments to make them more comparable to our domestic firms. This proposed sample would comprise of firms from other countries, in addition to USA firms, and would also be more up to date than our previous sample. Below we develop this new sample.

6.2.2.1 Firm selection

To correct for country-related and operational structure differences, our discussion paper proposed to select firms that:

1. Operate in developed economies.
2. Operate in energy-related sectors and industries.
3. Derive most of their revenue from regulated electricity and/or gas networks.
4. Have been listed for at least a specific number of years.
5. Have a market capitalisation that exceeds a certain threshold.
6. Have a bid-ask spread that is below a certain threshold.

Using these filters, we developed and published a sample of 48 firms from the USA, UK, Canada and continental Europe following the release of our discussion paper.⁵² We have since made two further minor refinements:

- *Removing* Avangrid, Inc. (AGR US Equity), because it has been delisted.
- *Including* Vector Limited (VCT NZ Equity). Despite it not meeting some of our filters above, Vector Limited has the advantage of being listed in New Zealand, which is a developed country that is economically and geographically close to Australia and, therefore, deserves special consideration. We found that other regulators tend to prefer firms from neighbouring (developed) countries to those that are from further

⁵¹ CEG, *Information on equity beta from US companies*, June 2013.

⁵² AER, *Preliminary sample of international firms tickers*, December 2025.

away. Energy Consumers Australia (ECA) also considered Vector Limited a suitable comparator.⁵³

We use this sample as the primary sample in our subsequent analyses.

We note that these filters only partially correct for the differences between domestic NSPs and the international energy firms. However, as we discuss later, there are likely to be country-related differences even between developed economies. Therefore, the first filter could only partially correct for these country-related differences. In addition, we encountered challenges in implementing the third filter on regulated energy network revenue, which required some judgement because many of the international energy firms we reviewed do not separately report energy revenue from network operations (transmission and distribution) and non-network operations (generation and retail). Therefore, differences in operational structures are also only partially corrected for.

Professor Johnstone (2026 RORI review Eligible Expert) noted the limitations of the filtering approach and suggested that filters are “plausible but ultimately ad hoc criteria by which international firms might be matched to Australian NSPs.” He further noted that “the possible firm matching criteria are arguable in validity and relative importance.”⁵⁴

Associate Professor Partington (2026 RORI review Eligible Expert) agreed with our filters, but proposed 18 additional filters relating to growth and patterns in cash flow, profitability, volatility and rates of return.⁵⁵ We found these additional filters difficult to implement due to the significant amount of data analysis and subjective judgement required, such as to determine the appropriate threshold to use to qualify/disqualify each candidate firm. These additional filters are also not used by any other regulators that we are aware of. Therefore, we have not adopted them.

Mr Kumareswaran agreed mostly with our filters but recommended against a market capitalisation filter and suggested the Amihud measure as an alternative to the bid-ask spread filter.⁵⁶ The Amihud measure is defined as the average ratio of the daily absolute stock return to the dollar trading volume on that day. Mr Kumareswaran did not support Associate Professor Partington’s additional filters.⁵⁷

⁵³ ECA, *Attachment - EMAS Report for Energy Consumer Australia’s Submission to the AER’s 2026 Rate of Return Instrument Review*, December 2025, p. 32.

⁵⁴ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, p. 13.

⁵⁵ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, pp. 34-35.

⁵⁶ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, pp. 21-23.

⁵⁷ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, pp. 46-48.

ENA, AusNet Services and Endeavour Energy agreed with our proposed filters. They did not agree with Associate Professor Partington’s additional filters.⁵⁸ ENA also suggested the Amihud measure as an alternative to the bid-ask spread filter.⁵⁹

We have used relatively lenient thresholds for the market capitalisation filter and bid-ask spread filters, which excluded a total of 16 firms – none of which are in the samples of other regulators (including ERAWA, QCA and NZCC). We have retained these filters and have not adopted the Amihud measure, because the impact of making a change is likely to be immaterial.

ENA, in an earlier commissioned report, suggested a sample of international firms that were selected using similar filters as the ones we proposed.⁶⁰ ECA submitted that we should only consider 3 international firms: Vector Limited; National Grid; and Hydro One.⁶¹ Below we compare the equity beta estimates of both of these samples with that of our proposed international sample in our empirical estimates.

6.2.2.2 Gearing and debt beta

Our discussion paper observed that the average gearing ratios of international energy firms tend to be lower than our current benchmark gearing ratio of 60%, which is based on Australian NSPs. This means that if we de-lever and re-lever the equity beta estimates of international firms to our benchmark gearing ratio, assuming a debt beta of zero, it would likely result in an upward bias in the estimates of equity beta and overall weighted average cost of capital (WACC). To rectify this issue, we proposed two options, each with its own trade-offs: introduce a positive debt beta; or change our benchmark gearing.⁶²

Our approach in this draft decision is to use a positive debt beta and to retain the current benchmark gearing ratio of 60% for the 2026 RORI.

Mr Kumareswaran and Associate Professor Partington agreed that we should maintain our current benchmark value of gearing. They both recognised that changing the benchmark gearing would impact the trailing average return on debt and likely introduce significant additional complexity to the RORI process.⁶³ Professor Johnstone considered that maintaining our current level of gearing is “pragmatic and generally representative.”⁶⁴ NSP

⁵⁸ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp.33-34; AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts’ report*, December 2025, p.2; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p.2.

⁵⁹ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp. 33-34.

⁶⁰ ENA, *CEG Response Appendix A: firm profile with analysis*, December 2024.

⁶¹ ECA, *Attachment - EMAS Report for Energy Consumer Australia’s Submission to the AER’s 2026 Rate of Return Instrument Review*, December 2025, p. 32.

⁶² AER, *Rate of Return Instrument, Review discussion paper*, 4 August 2025, pp. 17-18.

⁶³ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, pp. 23-27, 38.

⁶⁴ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, p. 14.

stakeholders, including ENA, Ausgrid and Endeavour Energy, also supported maintaining the current gearing ratio for the 2026 RORI.⁶⁵

Our draft decision adopts a debt beta value of 0.1 to the de-levering and re-levering formula to adjust for the difference in gearing ratios between domestic and international firms. This is informed by other regulators' decisions and the views of the 2026 RORI review's Eligible Experts and submitting stakeholders:

- Mr Kumareswaran provided an extensive list of 22 regulatory determinations on debt beta over the last 10 years, ranging from 0.05 to 0.125, with both the median and the mode being 0.1.⁶⁶
- Professor Johnstone suggested a value of 0.1.⁶⁷
- Associate Professor Partington suggested values of 0.1 or 0.2.⁶⁸
- ECA suggested a value of 0.125.⁶⁹
- ENA suggested a value of 0.1 or lower.⁷⁰

We have also adopted Associate Professor Partington's and Mr Kumareswaran's recommendation to use the Brealey-Myers formula with a positive debt beta (also known as the Harris-Pringle formula) instead of the Hamada formula in the de-levering and re-levering process.⁷¹ ENA also proposed this method in an earlier commissioned report.⁷² The Brealey-Myers formula is more consistent with our approach to the rate of return because it assumes a constant gearing ratio, while the Hamada formula assumes that the quantity of debt remains fixed.

⁶⁵ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p.38; Ausgrid, *Submission to the AER's 2026 RORI discussion paper*, December 2025, p.3; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p.2.

⁶⁶ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, pp. 51-52.

⁶⁷ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, p. 14.

⁶⁸ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, p. 38.

⁶⁹ ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER's 2026 Rate of Return Instrument Review*, December 2025, p. 40.

⁷⁰ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp. 39-41.

⁷¹ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, pp. 40,53.

⁷² ENA, *CEG Report Using international comparators to estimate the benchmark Australian equity beta*, July 2024, p. 25.

The Brealey-Myers formula is as follows:

Equation 6.1: The Brealey-Myers formula (with a positive debt beta)

$$\beta_A = \beta_E(1 - G) + \beta_D G$$

$$\beta_E = \frac{\beta_A - \beta_D G}{(1 - G)}$$

Where:

- β_A , β_E , β_D = asset beta, equity beta and debt beta
- G = gearing ratio, or the percentage of a firm's assets financed by debt

For consistency, our draft decision adopts this formula and a debt beta of 0.1 when de-levering and re-levering the beta estimates of both our domestic firms and that of international firms.

Associate Professor Partington suggested that the observed gearing difference between Australian NSPs and international energy firms may reflect a more fundamental difference (in asset betas) between the two samples. He noted that the fundamental premise of the exercise of de-levering and re-levering beta is that “the underlying asset beta is the same” for both samples, which may not be true in our case.⁷³ Professor Johnstone agreed with this view.⁷⁴ For this reason, Associate Professor Partington questioned whether it is worthwhile at all to de-lever and re-lever equity beta.⁷⁵ ENA disagreed with this view and noted that de-levering and re-levering is a standard part of regulatory and commercial practice when estimating equity beta. It also provided illustrative examples of how gearing affects equity beta.⁷⁶

While we recognise the merits of Associate Professor Partington's argument, we agree with ENA that de-levering and re-levering is common practice, and we have not found any other regulator that does not do so. Therefore, we will continue to de-lever and re-lever in our approach to estimating equity beta.

We discuss later that this observed gearing difference between Australian NSPs and international energy firms, which may reflect a more fundamental difference between the two samples, could mean that international firms may be less useful to us in estimating the equity beta for a benchmark Australian NSP.

6.2.2.3 Market indices

The equity beta estimates of international firms are measured with respect to the market index of their home markets, which do not have the same composition as that of the

⁷³ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, p. 43.

⁷⁴ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, pp. 44-45.

⁷⁵ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, p. 43.

⁷⁶ ENA, Attachment A - Frontier Economics Report Beta estimation issues, December 2025, pp. 18-21.

Australian market. Our discussion paper considered the option of adopting an international Capital Asset Pricing Model (CAPM). However:

- individual firms' returns tend to correlate less with a world index than they do with their domestic indices
- adopting an international CAPM would require us to “internationalise” other rate of return parameters, including the risk-free rate and market risk premium, which would introduce significant additional complexity to our approach to estimating the rate of return.

Our approach in this draft decision is to continue to use local indices and to not adopt an international CAPM.

Mr Kumareswaran, Associate Professor Partington, ENA, Ausgrid, Endeavour Energy and Transgrid agreed that we should continue to use local indices.⁷⁷ No stakeholder submitted support for adopting an international CAPM, nor are we aware of any other regulators that have adopted it.

The consequence of our pragmatic approach is to not adjust for the difference in market indices between Australian NSPs and international energy firms. This difference is significant and may introduce bias to the resulting international equity beta estimates.

6.2.3 Relative merits of domestic and international data

Having developed an international sample of firms with appropriate filters and adjustments, we now compare the relative merits of this new international sample with our domestic comparator set. We considered a broad range of evidence, including the views of submitting stakeholders and that of other regulators.

Given the limitations of the available data, regulatory judgement is required to determine the most appropriate approach to estimating equity beta. The Consumer Reference Group (CRG) likened our task to predicting the score of a football game that will never take place.⁷⁸ Given such uncertainty, we recognise and respect that different regulators and stakeholders may each have different views. Our view is that the relative merits of using domestic data to estimate the value of equity beta outweigh those of using international data at this time, for the following reasons.

- Domestic data is more relevant than international data for our purposes, meaning that the equity beta estimates of our domestic comparators better reflect that of a pure-play Australian regulated NSP. This is supported by other regulators' decisions, differences in the composition of Australian and other market indices, as well as

⁷⁷ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, pp.27-29,43; ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp.43-46; AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts' report*, December 2025, p.1; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p.2; Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, p.9

⁷⁸ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 24.

differences in empirical estimates of beta and gearing between Australian NSPs and international energy firms.

- While international data offers a larger sample size than domestic data, we consider that our domestic sample of 9 firms is not insufficient. We note that several other regulators have used samples of 9 or fewer firms.
- While international firms offer more recent data, this is a less important factor because we give the most weight to the longest period in estimating equity beta. International firms may also not be the most reliable indicators of prevailing market conditions in Australia.

6.2.3.1 Relevance – other regulators’ decisions

We consider that domestic data is more relevant than international data for our purposes because domestic firms are more representative of a benchmark Australian regulated NSP. Moreover, we consider ‘relevance’ the most important factor.

Several submitting stakeholders, including ENA, Ausgrid, Energy Queensland and Transgrid, suggested that other regulators (ERAWA, QCA, and NZCC) have adopted international data in their estimation methods.⁷⁹ We acknowledge these regulators’ decisions and have undertaken a broader review, including of additional regulators.

We found that, all else equal, regulators tend to prefer domestic firms over international firms. Where there is a lack of domestic firms, regulators tend to prefer firms from countries that are similar to their own. Specifically, we observe that regulators’ decisions can be broadly divided into three categories.

1. Regulators tend to use only domestic firms if there is sufficient data available. This tends to be the case for USA regulators.⁸⁰
2. Where there is a lack of domestic firms, regulators tend to prioritise firms from other nearby developed countries, in addition to their domestic firms. European regulators, such as Ofgem, tend to consider firms from other European countries.⁸¹ Canadian regulators tend to consider firms from the USA.⁸²
3. Some regulators have also included firms from countries that are further away. For example, ERAWA, QCA and NZCC have used firms from not only Australia and New

⁷⁹ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp.29-31; Ausgrid, *Submission to the AER's 2026 RORl discussion paper*, December 2025, p.2; Energy Queensland, *2026 Rate of Return Instrument Review Discussion Paper*, December 2025, p.2; Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, pp. 6-7.

⁸⁰ See for example: Liberty Utilities, *2025 General Rate Case Before the California Public Utilities Commission, Chapter 7: Cost of Capital*, September 2024, p.5; Xcel Energy, *Direct Testimony and Attachments of Ann E. Bulkley on Behalf of Public Service Company of Colorado*, January 2022, pp. 34-35.

⁸¹ See for example: Ofgem, *RlIO-3 Draft Determinations - Finance Annex*, July 2025, p. 56.

⁸² See for example: Ontario Energy Board, *Decision and Order EB-2024-0063*, March 2025, p.40; British Columbia Utilities Commission, *Generic Cost of Capital Proceeding (Stage 1) Decision and Order G-236-23*, September 2023, p. 16.

Zealand, but also from other English-speaking developed countries such as the USA, UK and Canada.⁸³

The regulators that we reviewed are all based in developed countries and have chosen their comparator firms from developed countries. However, our findings above suggest that regulators tend to have regard for differences even between developed countries.

Regulators that have adopted international data, such as ERAWA, QCA and NZCC, typically consider a lack of domestic data as a key reason for considering international data.⁸⁴ ERAWA, for example, noted that a domestic sample “is kept within Australian capital markets and includes the closest, comparable pure-play energy networks” and that “the approach is consistent with prior practice regulatory approach and precedent”.⁸⁵ QCA also considered that “consistent with the domestic-style CAPM that we employ, the starting place for an appropriate set of comparators is domestically listed businesses”.⁸⁶ Therefore, these regulators appear to have a default preference for domestic data, and that international data is only adopted as a secondary option because of the shortcomings of domestic data. We discuss the shortcomings of our domestic data in terms of sample size and recentness in later sections.

Regulators’ default preference for domestic data (all else equal) also implies that there is some difference between domestic and international data. ERAWA considered that the introduction of international comparators may “introduce difference in market structure, regulation and economic factors that affect the estimated beta.”⁸⁷ QCA noted that “a certain level of caution needs to be exercised when assessing betas from internationally listed firms.”⁸⁸ In this manner, even those regulators that have adopted international data recognise that it is an imperfect substitute for domestic data.

Mr Kumareswaran affirmed this view when he noted that “in an ideal world in which the AER had a large sample of listed domestic comparators, it would be preferable to rely on those firms when estimating beta, rather than use international comparators, so as to avoid introducing unnecessary bias.”⁸⁹ He also suggested that “in practice, it is impossible to identify firms that are perfect comparators to the regulated NSPs” and that some degree of compromise is necessary.⁹⁰

⁸³ ERA, *Explanatory statement for the 2022 final gas rate of return instrument*, December 2022, pp.237-238; QCA, *Rate of return review, Version 4*, September 2024, pp.124-126; NZCC, *Cost of capital topic paper, Part 4 Input Methodologies Review 2023 – Final decision*, December 2023, pp. 348-350.

⁸⁴ ERA, *2022 final gas rate of return instrument, Explanatory statement*, December 2022, p.175; QCA, *Rate of return review, Version 4*, September 2024, p.85; NZCC, *Input methodologies review decisions, Topic paper 4: Cost of capital issues*, December 2016, p.63.

⁸⁵ ERA, *2022 final gas rate of return instrument, Explanatory statement*, December 2022, p. 176.

⁸⁶ QCA, *Rate of return review, Version 4*, September 2024, p. 82.

⁸⁷ ERA, *2022 final gas rate of return instrument, Explanatory statement*, December 2022, p. 180.

⁸⁸ QCA, *Rate of return review, Version 4*, September 2024, p. 83.

⁸⁹ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, p. 46.

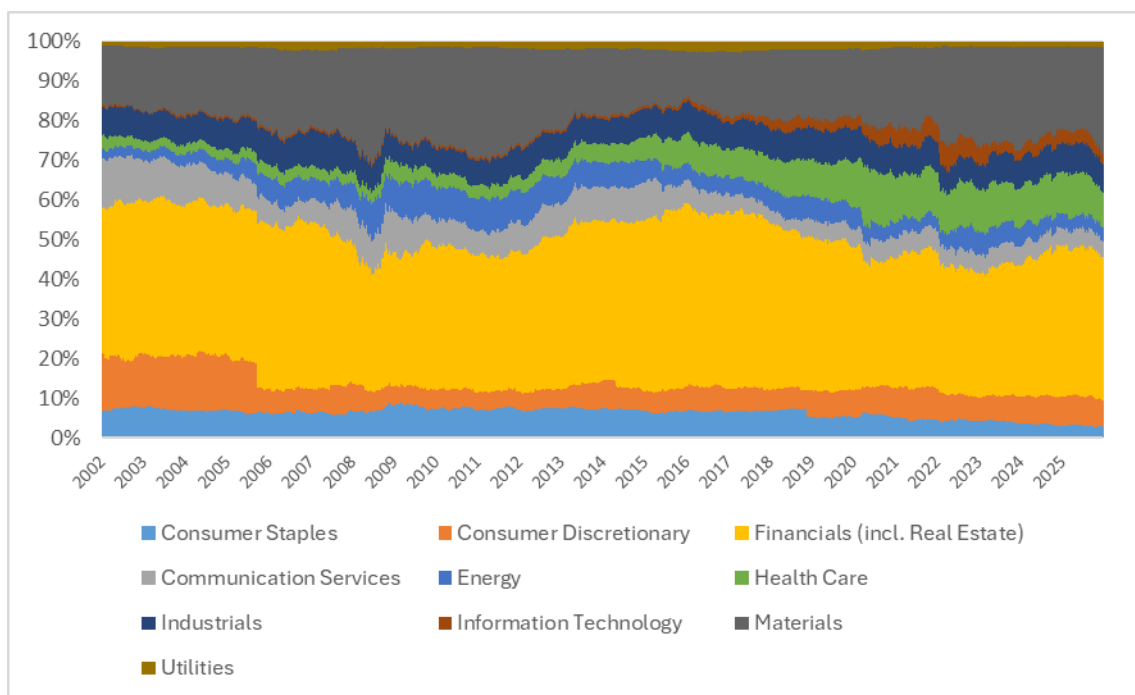
⁹⁰ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, p. 21.

6.2.3.2 Relevance – difference in market index composition

We found a difference in the composition of the market index between Australia and other countries, and this difference is more pronounced than the change in the composition of Australia’s market index over time.

Figure 6.1 shows that, since at least 2002 when the data began, the Australian market has consistently been dominated by the Financials and Materials sectors, despite small changes in relative weights over time.

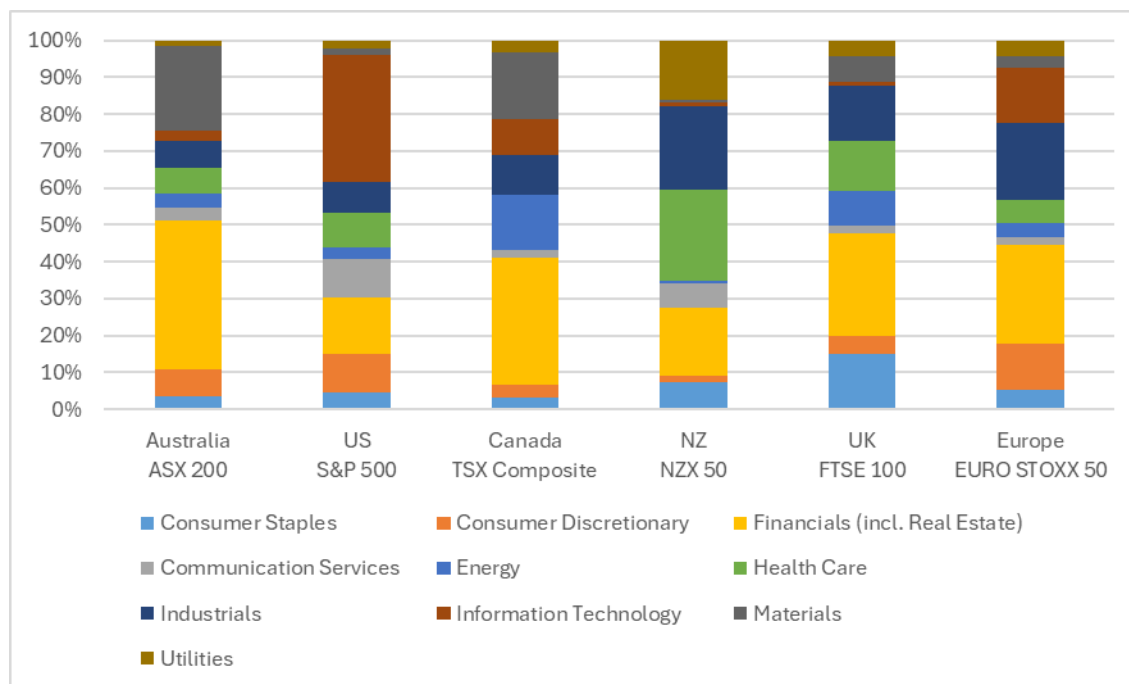
Figure 6.1: Change in Australia’s market index composition over time



Source: AER analysis; Bloomberg.

Note: A Real Estate sector was created in 2016, which makes up less than 10% of the market. Its constituents were previously classified under the Financials sector. We have combined the Financials and Real Estate sector weights to allow for comparison over time.

Figure 6.2 shows that the composition of the Australian market is very different to that of other markets. Compared with the other indices, the Australian index appears to have the largest relative weights in the Financials and Materials sectors and the smallest relative weights in the Industrials sector. Moreover, the US index appears to be uniquely dominated by the IT sector, unlike any of the other indices including that of Australia. This is significant to us because most of the firms in our new international sample are listed in the USA.

Figure 6.2: Comparison of the market compositions of Australia and other countries as at December 2025

Source: AER analysis; [S&P/ASX 200 index](#); [S&P 500 index](#); [S&P/TSX Composite index](#); [S&P/NZX 50 index](#); [iShares Core FTSE 100 UCITS ETF](#); [iShares Core EURO STOXX 50 UCITS ETF](#); all accessed on 19 January 2026.

Note: We have used information from Exchange Traded Funds as proxies to estimate the market compositions of the FTSE 100 index and the EURO STOXX 50 index, because this information was not directly available from the index providers. We have combined the Financials and Real Estate sector weights for consistency.

Furthermore, sector-level comparisons do not reveal differences in composition within each sector. The magnitude of within-sector differences is difficult to investigate in detail, but we can illustrate this with an example by comparing the Australian and US Financials sectors.

Australia's Financials sector has long been dominated by the "Big 4" banks: CBA, Westpac, NAB and ANZ. These banks are primarily based in Australia and earn a vast majority of their revenue from lending in Australia. In contrast, the four largest firms in the S&P 500 Financials sector are Berkshire Hathaway, JP Morgan Chase, Visa and Mastercard.⁹¹ Berkshire is a conglomerate that owns businesses in a variety of industries, while the latter three firms are global corporations that earn a large portion of their revenue from outside the USA. This example shows that the types of firms that make up each industry sector may be very different between each country, which further contributes to the difference in market indices between countries.

ENA submitted that "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."⁹² Mr Kumareswaran also made this

⁹¹ S&P, *S&P 500 Financials Index (USD) Factsheet*, December 2025, p. 5.

⁹² ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp. 46-48.

observation.⁹³ However, our analysis above suggests that the difference between Australia and other markets is greater than the change in the Australian market over time.

Professor Johnstone provided technical commentary to show that equity betas do not transport unchanged across markets, and that the same firm in different countries can have different equity beta estimates.⁹⁴ Associate Professor Partington also supported this view.⁹⁵ Therefore, the difference between the Australian and other countries' market indices can make international beta estimates (using local indices) less useful for our purposes.

6.2.3.3 Relevance – empirical observations of equity beta and gearing

Empirical observations can also provide some indication of the extent to which international firms differ from domestic firms. We found that the de-levered (asset) betas of our new sample of international energy firms have been consistently higher than that of Australian energy networks, as shown in our empirical estimates. Moreover, the equity betas of the international firms also do not correlate well with that of Australian NSPs over time. For example, during the COVID-19 pandemic period in 2020, the equity betas of Australian NSPs decreased, while the equity betas of international energy firms increased.

We also observe a difference in the level of gearing between the firms we regulate and that of international energy firms. Associate Professor Partington noted that the trade-off theory of capital structure suggests that firms choose an optimal mix of debt and equity by balancing the tax benefits of debt (interest tax shields) against the increasing costs of financial distress (bankruptcy costs and agency costs).⁹⁶ With all else equal, firms with similar risk of bankruptcy should therefore have a similar level of gearing. He further suggested that, unlike most other countries, Australia's dividend imputation system allows tax paid by companies to be imputed to shareholders as tax credits.⁹⁷ This means that the benefit of debt, relative to equity, is lower in Australia than in other countries that do not have an imputation system. As such, a firm in Australia should have lower gearing than a similar firm in another country. However, we have observed the opposite in our empirical estimates, that international energy firms have an average gearing ratio of around 46% compared to our benchmark gearing ratio of 60% (based on Australian NSPs). This suggests that the international energy firms in our sample may be fundamentally *riskier* than the firms we regulate.

ENA questioned the significance of the observed differences in equity beta estimates and gearing between domestic and international firms by suggesting that there is a large variation in both equity beta and gearing within our domestic sample.⁹⁸ ECA observed a difference in

⁹³ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, pp. 27-29.

⁹⁴ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, pp. 10-13.

⁹⁵ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, pp. 32-33.

⁹⁶ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, pp. 30-31.

⁹⁷ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, pp. 30-31.

⁹⁸ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp. 35-36, 42-43.

equity beta estimates between domestic and international firms, but considered the evidence for the difference in gearing to be relatively weak.⁹⁹

While these observed differences may be modest, we note that they are consistent with our analyses in the previous sections, which suggest that there is likely to be some difference between the equity betas of domestic and international firms. Moreover, ENA's analysis did not consider that the variations within our domestic comparator set can largely be explained by the difference in the firms' proportion of regulated revenue. The 5 majority-regulated domestic firms (AusNet Services Limited, DUET Group, Envestra Limited, GasNet Australia Group, and Spark Infrastructure Group) all have lower equity beta estimates and higher gearing ratios than the other 4 firms. We also note that a gearing ratio comparison between Australian and international firms should consider that, given the trade-off theory and Australia's imputation system, our null hypothesis should be that Australian firms have lower gearing ratios relative to similar international firms. Our observation that international firms have lower gearing ratios provides some evidence that international firms are likely to have higher asset betas than the firms we regulate.

6.2.3.4 Sample size

Our domestic comparator set consists of 9 firms. International energy firms offer a larger sample size than our domestic sample and may, therefore, provide more statistically significant estimates of equity beta. However, we found that 9 firms is not an exceptionally small number compared with the samples used by other regulators.

Several regulators have used a relatively large comparator set. For example, QCA, NZCC and ERAWA have samples of 39, 51 and 62 firms, respectively,¹⁰⁰ and consider that international data has the benefit of having a larger sample size than domestic data.¹⁰¹ Mr Kumareswaran and ENA also noted the relatively small sample size of our domestic comparator set.¹⁰²

⁹⁹ ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER's 2026 Rate of Return Instrument Review*, December 2025, pp. 39-42.

¹⁰⁰ ERA, *Explanatory statement for the 2022 final gas rate of return instrument*, December 2022, pp.237-238; QCA, *Rate of return review, Version 4*, September 2024, pp.124-126; NZCC, *Cost of capital topic paper, Part 4 Input Methodologies Review 2023 – Final decision*, December 2023, pp. 348-350.

¹⁰¹ ERA, *2022 final gas rate of return instrument, Explanatory statement*, December 2022, p.175; QCA, *Rate of return review, Version 4*, September 2024, pp.82-83; NZCC, *Input methodologies review decisions, Topic paper 4: Cost of capital issues*, December 2016, p.63.

¹⁰² Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts' joint report*, 24 November 2025, p.21; ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 36.

However, several other regulators have used a sample size of 9 firms or fewer to estimate equity beta, including:

- The Office of Gas and Electricity Markets (Ofgem, United Kingdom), in its RIIO-3 decision for 2026-2031, used 9 firms.¹⁰³ Its previous RIIO-2 decision for 2021-2026 used 5 firms.¹⁰⁴
- The Commission for Electricity and Gas Regulation (CREG, Belgium), in a decision for 2024-2027 on electricity transmission, used 1 firm.¹⁰⁵
- The Authority for Consumers and Markets (ACM, Netherlands), in a draft decision for 2027-2031 on electricity and gas distribution, used 7 firms.¹⁰⁶
- The Energy Regulatory Commission (CRE, France), as part of its decisions for 2025-2028, commissioned technical reports by Compass Lexecon, which used 5 firms for electricity transmission and distribution.¹⁰⁷
- NZCC, in its 2023 Input Methodologies Review, while having a larger sample for energy, used 9 firms for airports.¹⁰⁸

Therefore, we consider that our domestic sample of 9 firms is not insufficient.

In addition, as discussed earlier, international data is an imperfect substitute for domestic data. Therefore, it is unclear to what extent the potentially larger sample size offered by international data could improve the accuracy of our equity beta estimates. Dr. Glenn Boyle previously explained this point in the 2022 RORI Concurrent Evidence Sessions using the following analogy:¹⁰⁹

“Suppose I wanted to estimate... the mean size of Cocker Spaniels... So I would collect data on the size of Cocker Spaniels and I would take the arithmetical average, and that would be my estimate of the mean size of Cocker Spaniels. But I might not have many Cocker Spaniels, and so the standard error is high and it is not very precisely estimated. But it turns out I have access to an unlimited amount of data on Great Danes, say, or alternatively Chihuahuas. Now, I could add in the Great Dane data... with the Cocker Spaniels, and I could take the

¹⁰³ Ofgem, *RIIO-3 Draft Determinations - Finance Annex*, July 2025, p.56; Ofgem, *RIIO-3 Final Determinations - Finance Annex*, December 2025, pp. 53-54.

¹⁰⁴ Ofgem, *RIIO-2 Final Determinations - Finance Annex (REVISED)*, February 2021, p.42.

¹⁰⁵ CREG, *Arrêté fixant la méthodologie tarifaire pour le réseau de transport d'électricité et pour les réseaux d'électricité ayant une fonction de transport pour la période régulatoire 2024-2027*, June 2022, p. 18.

¹⁰⁶ ACM, *Ontwerpmethodebesluit bijlage 3A WACC*, September 2025, p. 16.

¹⁰⁷ Compass Lexecon, *Estimation des paramètres de rémunération des charges de capital de RTE pour les activités régulées de transport d'électricité pour la période 2025-2028*, October 2024, p.29; Compass Lexecon, *Estimation des paramètres de rémunération des charges de capital d'Enedis pour les activités régulées de distribution d'électricité pour la période 2025-2028*, October 2024, pp. 26-27.

¹⁰⁸ NZCC, *Cost of capital topic paper, Part 4 Input Methodologies Review 2023 – Final decision*, December 2023, p. 136.

¹⁰⁹ Concurrent Evidence Session 1, 10 Feb 2022, pp. 56-57.

average of that, and I would have a much more precisely estimated mean, but not a very sensible one because they are fundamentally... different beasts.”

6.2.3.5 Recentness

As noted earlier, most of our domestic firms have now been delisted from the ASX. International firms that are currently listed may offer more recent information that is more reflective of contemporaneous market conditions. However, we consider recentness to be a relatively less important consideration.

At the time of the 2022 RORI review, we considered that our domestic comparator set was sufficiently recent.¹¹⁰ Now, in 2026, 8 of the 9 firms in our domestic sample have been delisted for at least four years, and only APA Group (which is not an optimal comparator) has complete data for the most recent 5 years. As such, our domestic sample may not reflect the most up-to-date market information, which a forward-looking equity beta estimate requires.

Mr Kumareswaran, ENA and several NSP stakeholders considered a lack of recent data for our domestic firms as a key reason to support giving relatively more weight to international data.¹¹¹ Professor Johnstone agreed that equity betas are forward-looking, and that historical beta estimates may not reflect today’s perceived risk.¹¹²

Most of the other regulators that we reviewed also prefer to use currently listed firms in their comparator sets. For example, ERAWA and QCA both noted a lack of currently listed domestic firms as a reason for incorporating international comparators.¹¹³

We noted in the 2022 RORI review that short-term estimates are often volatile and can be influenced by macroeconomic cycles, interest rate movements and one-off events (such as the Global Financial Crisis, and the economic impact of events such as the COVID-19 pandemic and war in Ukraine). These factors can (temporarily) obscure the longer-term systematic risk of a regulated energy network whose exposure is mitigated by regulation and the monopoly nature of the service it provides.¹¹⁴

Given the flaws in short-term data, our approach has consistently been to give the most weight to the longest-period estimates of equity beta, which have been stable over time. The

¹¹⁰ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, p. 179.

¹¹¹ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, p.19; ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp.23-24; Ausgrid, *Submission to the AER’s 2026 RORI discussion paper*, December 2025, p.2; AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts’ report*, December 2025, p.1; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p.2; Energy Queensland, *2026 Rate of Return Instrument Review Discussion Paper*, December 2025, p.1; Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, pp.5-6; APG, AustralianSuper, IFM, *Response to AER Rate of Return Instrument Discussion Paper and Eligible Experts’ Report*, December 2025, p.1.

¹¹² Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, p. 18.

¹¹³ ERA, *Explanatory statement for the 2022 final gas rate of return instrument*, December 2022, pp.174-181; QCA, *Rate of return review, Version 4*, September 2024, p.83.

¹¹⁴ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp. 176-177.

CRG and ENA agreed with this approach.¹¹⁵ The data for the recent 5 years would make up only a fraction of the data for the longest-period estimates. This means that a lack of data for the most recent 5 years is unlikely to significantly affect the overall estimation results.

Moreover, as discussed earlier, international equity beta estimates do not correlate well with domestic estimates. This suggests that international data may only be of limited value as an indicator of the current market conditions faced by Australian NSPs.

6.2.4 Using domestic and international data

With a diminishing domestic comparator set, international firms may be the most viable alternative to our listed domestic firms. But international data has its own shortcomings and is an imperfect substitute for Australian data. We consider it appropriate to use both domestic and international data to develop an appropriate range, but to not rely solely on either because both samples have their limitations. Overall, we consider that domestic data's relative merits outweigh those of international data.

Professor Johnstone considered that international data may not be better than our current domestic data.¹¹⁶ The CRG opposed using international firms to inform our equity beta estimates and proposed that international data should only be used as a cross-check.¹¹⁷ Institute for Energy Economics and Financial Analysis (IEEFA) also opposed using international data.¹¹⁸ We note that continuing to rely solely on domestic data may not be a viable approach, because it consists of a relatively small sample of mostly delisted firms. With only 1 of the 9 domestic firms still listed, it would mean that our equity beta estimates may not incorporate the most up to date market information.

ECA suggested that we should only rely on the majority-regulated firms in our domestic comparator set.¹¹⁹ We note that this approach exacerbates the shortcomings of our domestic sample, as it uses only a subset of delisted domestic firms.

The CRG and ECA further noted that APA Group is not a valid comparator given its low proportion of regulated revenue.¹²⁰ While we recognise APA Group's flaws as a comparator, we note that it has the advantage of being the longest listed firm, as well as the only currently listed firm in our domestic comparator set. APA Group's equity beta estimates have also been more closely correlated with other domestic firms, such as Spark Infrastructure Group and AusNet Services, than with international firms' equity beta estimates, as we show in our

¹¹⁵ CRG, *CRG submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p.19; ENA, *AER 2026 Rate of Return Instrument Review, Response to AER Review Discussion Paper*, December 2025, pp.25-26.

¹¹⁶ Eligible Experts, *Eligible Experts' Responses to Stakeholders' Questions*, December 2025, p. 44.

¹¹⁷ CRG, CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, pp. 30-31.

¹¹⁸ IEEFA, *Rate of Return Instrument Review discussion paper*, December 2025, p. 2.

¹¹⁹ ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER's 2026 Rate of Return Instrument Review*, December 2025, pp. 40-42.

¹²⁰ CRG, CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, pp.25-26. ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER's 2026 Rate of Return Instrument Review*, December 2025, p. 33.

empirical estimates. We consider that APA Group can be useful in informing our equity beta estimates, hence we continue to include it in our domestic comparator set.

Mr Kumareswaran and ENA proposed that we should use a combined sample of both domestic and international firms.¹²¹ ENA suggested that any tests that might be used to exclude international firms, such as thresholds in equity beta estimates and gearing, should also be applied to domestic firms.¹²² We note that this approach assumes that only firm-related differences matter, and that country differences and market index differences (between Australia and other countries) do not. However, as discussed earlier, country differences and market index differences are likely to be material and cannot be easily corrected for. Therefore, we consider it appropriate to assess and estimate the equity betas of international firms separately from domestic firms, instead of combining them into a single sample. We note that ERAWA follows a similar approach in this regard, as it estimates equity beta on a country-by-country basis and then exercises regulatory judgement in selecting a point estimate.¹²³

6.3 Other considerations

6.3.1 Conceptual analysis and a priori beta estimates

We maintain our 2022 view that, conceptually, the systematic risk for an Australian NSP is likely to be below that of the market average firm.¹²⁴

We suggested several reasons for this. Firstly, the firm would be a regulated natural monopoly that provides an essential service with low price elasticity of demand. Secondly, incentive regulation allows service providers to earn more stable cashflows than firms that are not regulated. Furthermore, the structure of the regulatory regime insulates service providers from systematic risk (including inflation), such as through revenue cap regulation, tariff variation mechanisms, cost pass through mechanisms, fixed charges and protection of sunk investment through rolling forward the regulatory asset base (RAB). And finally, the higher financial leverage of an efficient Australian regulated energy network business, relative to the market average, does not necessarily correspond to an equivalently high exposure to financial risk. This led us to conclude that Australian NSPs' equity beta estimate would likely be below 1.¹²⁵

More recently, both the CRG and ECA submitted additional qualitative analysis of risk factors that NSPs are exposed to, such as inflation risk, input price risk and asset stranding risk. The CRG and ECA described how our regulatory framework limits or mitigates each of these risk factors, such as by allowing NSPs to recover certain unexpected expenses by passing them

¹²¹ Eligible Experts, *Eligible Experts' Responses to Stakeholders' Questions*, December 2025, p.7; ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp. 52-55.

¹²² ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 49.

¹²³ ERA, *Explanatory statement for the 2022 final gas rate of return instrument*, December 2022, pp. 188-192.

¹²⁴ AER, *Draft Rate of Return Instrument Explanatory Statement*, June 2022, p. 173.

¹²⁵ AER, *Draft Rate of Return Instrument Explanatory Statement*, June 2022, p. 173.

on to consumers. Both the CRG and ECA concluded that NSPs enjoy significant regulatory protection that limits their systematic risk exposure.¹²⁶

Associate Professor Partington agreed that Australian NSPs face relatively inelastic demand and that the cyclical variation in their cash flows would be relatively low. He suggested that their equity beta should be more than corporate debt beta of 0.2 or 0.3, but less than 1, because these firms are less risky than the average firm listed on the ASX. He provided a priori estimates of equity beta for Australian NSPs, including a point estimate of 0.59 and a range from 0.55 to 0.65.¹²⁷

Professor Johnstone agreed with Associate Professor Partington’s conceptual approach, but questioned whether the precise values of his a priori estimates may be “psychologically or conveniently anchoring on past assessments”.¹²⁸ Mr Kumareswaran considered that a priori reasoning may be “difficult to explain or justify, and which may simply be wrong” and that “there may be no good way to validate or test the conjectures on which such reasoning relies”. He suggested that we should rely on empirical evidence.¹²⁹ ENA also did not support the use of a priori estimates.¹³⁰

We consider conceptual analysis useful as a cross-check for our equity beta estimates, but we do not consider it sufficiently robust to provide a precise point estimate of equity beta. We continue to give primary consideration to our empirical beta estimates.

6.3.2 Using equity beta to compensate consumers for networks’ outperformance

The CRG, ECA and Justice and Equity Centre (JEC) suggested that NSPs have consistently earned a return on capital in excess of that provided under the regulatory framework. They recommended a reduction in our value of equity beta to compensate consumers for networks’ outperformance.¹³¹

We do not consider that NSPs’ outperformance relative to the benchmark rate of return is indicative of the benchmark itself being incorrect. In addition, while a hypothetical reduction in the benchmark rate of return would reduce NSPs’ actual return on capital, it is unclear whether this would affect NSPs’ net outperformance gap. If, for example, NSPs’ actual return on capital is reduced by a similar amount as our benchmark return on capital, then the net

¹²⁶ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, pp.20-23, 31-32; ECA, *Attachment - EMAS Report for Energy Consumer Australia’s Submission to the AER’s 2026 Rate of Return Instrument Review*, December 2025, pp.23-27.

¹²⁷ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, pp. 30-31.

¹²⁸ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, p. 44.

¹²⁹ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, pp. 50-51.

¹³⁰ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 28.

¹³¹ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, pp.20-23, 31-32; ECA, *Attachment - EMAS Report for Energy Consumer Australia’s Submission to the AER’s 2026 Rate of Return Instrument Review*, December 2025, pp.42-44; JEC, *Rate of Return Instrument Review discussion paper*, December 2025, pp.3-4.

impact on the outperformance gap would be minimal. Therefore, we do not consider it appropriate to reduce the benchmark value of equity beta to address NSPs' outperformance.

6.3.3 Using a single beta for electricity and gas

Our approach in this draft decision is to continue to set a single equity beta for both electricity and gas NSPs. We consider that they are likely to have similar exposure to systematic risk, given that they share similar characteristics as natural monopolies and operate under similar regulatory frameworks.

The CRG agreed with this approach.¹³² On the other hand, ECA considered that “gas NSPs may have a higher exposure to systematic risk than electricity NSPs.”¹³³ JEC also asked us to consider whether there should be separate RORIs for electricity and gas NSPs, given the different volume risk faced by gas NSPs.

In the 2022 RORI review, we found no clear evidence of a material difference in overall exposure to systematic risk between electricity and gas networks. While there may be a potential risk of asset stranding for gas networks, we did not find evidence that would suggest that such risk is primarily systematic in Australia. We decided not to adjust equity beta to compensate for potential stranding risk and considered it more appropriate to address this issue under the broader regulatory framework, such as through depreciation policy.¹³⁴

In the absence of a compelling case for change, our approach in this draft decision is to continue to set a single equity beta for both electricity and gas NSPs.

6.3.4 Greenfield projects

Our benchmark value of equity beta applies to all NSPs, including for any greenfield and brownfield investments that they make. We have not changed our current approach in this draft decision.

Transgrid submitted that greenfield projects involve the development of entirely new infrastructure that are often greater in scale and complexity. It suggested that these projects are often exposed to additional (systematic) risk during construction, and that this risk should be addressed. It submitted qualitative analysis of risk factors faced by transmission projects during construction, including splitting these risk factors into systematic and non-systematic components and comparing across large-scale greenfield and brownfield projects.¹³⁵

Our regulatory regime arguably insulates transmission NSPs from unexpected inflation. We have also materially reduced the capital expenditure sharing scheme (CESS) sharing ratio for large Integrated System Plan (ISP) projects, shifting a large amount of cost overrun risk to consumers. It is unclear to us how much, if any, extra systematic risk is associated with

¹³² CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 33.

¹³³ ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER's 2026 Rate of Return Instrument Review*, December 2025, p. 27.

¹³⁴ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp.183-184; AER, *Draft Rate of Return Instrument, Explanatory Statement*, June 2022, pp. 185-188.

¹³⁵ Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, pp. 15-24.

greenfield projects, and whether these are material. Transgrid did not quantify this incremental systematic risk exposure in its submission.

Transgrid also noted that the USA’s Federal Energy Regulatory Commission (FERC) and UK’s Ofgem both have mechanisms to allow for a higher return on equity to compensate for the additional systematic risk of large greenfield projects.¹³⁶ We note that these mechanisms appear to be outliers, and that most other regulators do not seem make extra allowances for greenfield projects. FERC and Ofgem also do not have the same regulatory framework as we do, and therefore the risk exposures of the firms under these frameworks would also be different to those faced by Australian NSPs.

6.3.5 Non-systematic risks

This draft decision maintains our current approach of using the SL CAPM framework to estimate the return on equity. Under this framework, investors would only be compensated for exposures to systematic risk, and it is assumed that non-systematic risks can be diversified away.

Professor Johnstone provided extensive technical commentary, including examples, to show that non-systematic risk to cash flows, both positive and negative, should be identified and compensated for. He suggested that regulators face a “problem of circularity” when setting a benchmark value of equity beta using empirical data, because the observed values of equity beta in the market largely reflects the degree to which the regulatory framework limits NSPs’ risk exposures.

To mitigate this problem, he suggested that regulators can undertake a more fundamental approach to estimate equity beta by examining the underlying risk factors that the regulated firms are exposed to, including how each of these risk exposures affect the firms’ cash flows. He showed that the equity beta parameter can be expressed mathematically as a function of the Lintner ratio (which equals to the covariance of the firm’s cash flows with that of the market divided by the firm’s expected cash flows). This implies that idiosyncratic (non-systematic) risks can affect the value of equity beta. More specifically:¹³⁷

- If an idiosyncratic risk leads to an increase in a firm’s expected cash flows, then its Lintner ratio and its equity beta would both decrease.
- Conversely, if an idiosyncratic risk leads to a decrease in a firm’s expected cash flows, then its Lintner ratio and its equity beta would both increase.

Mr Kumareswaran agreed with the analysis and noted that our regulatory framework already reduces NSPs’ exposure to non-systematic risks that might change their expected cash flows significantly. He added that “if either the NSPs or consumers submit to the AER that there are material non-systematic risks that should be addressed through regulation, those proposals should be taken seriously by the AER.”¹³⁸ Associate Professor Partington also

¹³⁶ Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, pp. 17-19.

¹³⁷ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, pp. 14-19; David Johnstone, *Regulated Rate of Return: Beta and Its Drivers*, 13 November 2025.

¹³⁸ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, pp. 53-55.

endorsed Professor Johnstone’s analysis and emphasised that non-systematic risks can be either positive or negative.¹³⁹ Stakeholders did not submit any substantive comments on this issue.

We acknowledge the theoretical merits of Professor Johnstone’s analysis. However, we have not adopted his recommendation to identify and quantify non-systematic risks to NSPs’ cash flows to inform our equity beta estimate because we consider that it would be difficult to implement in practice. We are not aware of an established method to comprehensively and accurately identify and quantify all non-systematic risks that an NSP faces. If we were to undertake such a task, it would involve a large degree of subjectivity. Such a risk-assessment would also be difficult to verify with empirical evidence, given that the nature of risk is something that may or may not materialise. We are also not aware of any other regulators that have adopted this approach and, therefore, we do not have any known precedents that we can follow. Furthermore, non-systematic risks can be either positive or negative, as Associate Professor Partington suggested, and we already compensate for them to a large degree through other regulatory mechanisms, as Mr Kumareswaran noted. It is unclear whether the net impact of any residual non-systematic risks would be material.

6.4 Empirical estimates

We have refreshed our domestic and international equity beta estimates using our revised methodology, including adopting a debt beta of 0.1.

Mr Kumareswaran suggested that we could consider the median, as well as the mean, estimates for the international sample, which could dampen the influence of outliers.¹⁴⁰ We have reported both the mean and the median for both domestic and international estimates.

Going forward, we propose to update these estimates in our annual updates.¹⁴¹

Table 6.1 summarises our domestic equity beta estimates using data up to December 2025. Over the longest period, using a debt beta of 0.1, the average re-levered equity beta of our domestic firms is 0.56. We have also included estimates using our previous approach of using a debt beta of zero, for comparison purposes.

In the 2018 RORI, we observed a general trend of decreasing beta estimates as the proportion of regulated revenue increases.¹⁴² ECA noted that the average equity beta estimate for firms with over 50% regulated revenue (AusNet Services Limited, DUET Group, Envestra Limited, GasNet Australia Group, and Spark Infrastructure Group) is less than 0.4.¹⁴³ This is consistent with our updated domestic estimates.

¹³⁹ Eligible Experts, 2026 Rate of Return Instrument review – Eligible Experts’ joint report, 24 November 2025, p. 55.

¹⁴⁰ Eligible Experts, 2026 Rate of Return Instrument review – Eligible Experts’ joint report, 24 November 2025, p. 23.

¹⁴¹ AER, *Rate of Return Annual Update 2025*, November 2025.

¹⁴² AER, *Rate of return instrument, Explanatory Statement*, December 2018, pp. 173-174.

¹⁴³ ECA, *Attachment - EMAS Report for Energy Consumer Australia’s Submission to the AER’s 2026 Rate of Return Instrument Review*, December 2025, p. 28.

ENA submitted that “it would be wrong to interpret the evidence from the nine domestic comparators as supporting an estimate of 0.6” and that “seven of the nine estimates are not even within $\pm 33\%$ of 0.6”.¹⁴⁴ As discussed above, the dispersion in our domestic equity beta estimates can largely be explained by the difference in the firms’ proportion of regulated revenue.

Table 6.1 Domestic equity beta estimates, weekly OLS, re-levered to 60% gearing, as at December 2025

Domestic firms		Dates		Debt beta = 0.1 (Central estimate)		Debt beta = 0 (Sensitivity test)	
Name	Ticker	Start	End	Longest	5 years	Longest	5 years
Alinta Limited	AAN	Oct 2000	Aug 2007	0.85	N/A	0.91	N/A
AGL Energy Limited	AGL	May 1992	Oct 2006	0.60	N/A	0.68	N/A
APA Group	APA	Jun 2000	Dec 2025	0.65	0.42	0.67	0.44
AusNet Services Limited	AST	Dec 2005	Feb 2022	0.36	N/A	0.37	N/A
DUET Group	DUE	Aug 2004	Apr 2017	0.36	N/A	0.33	N/A
Envestra Limited	ENV	Aug 1997	Sep 2014	0.36	N/A	0.34	N/A
GasNet Australia Group	GAS	Dec 2001	Nov 2006	0.34	N/A	0.32	N/A
Hastings Diversified Utilities Fund	HDF	Dec 2004	Nov 2012	1.03	N/A	1.06	N/A
Spark Infrastructure Group	SKI	Mar 2007	Nov 2021	0.44	N/A	0.44	N/A
Average	N/A	N/A	N/A	0.56	N/A	0.57	N/A
Median	N/A	N/A	N/A	0.44	N/A	0.44	N/A

Source: AER analysis; Bloomberg.

Note: We have made minor revisions to some historical estimates. We have only used data from May 1992 onwards when comprehensive index data became available. AusNet Services Limited (AST) was previously named SP AusNet (SPN) before being renamed in 2014. The SKI data is available from December 2005, but we have only used data from March 2007 onwards. This is because data prior to March 2007 reflects stapled securities traded as instalment receipts, which require further leverage adjustment and make beta estimation difficult.

¹⁴⁴ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 35.

We have estimated the equity betas of our new sample of international firms, using a debt beta of 0.1 as our central estimate.

We have included estimates based on other samples of international energy firms, including:

- Our previous sample of international firms that we used in the 2018 and 2022 RORIs.¹⁴⁵
- The samples of other regulators, including NZCC, ERAWA and QCA.¹⁴⁶
- The samples proposed by submitting stakeholders, including ENA and ECA.¹⁴⁷
- A combined sample of all firms included in the above samples.

When analysing the samples of other regulators and those of submitting stakeholders, we only included international (non-Australian) energy firms.

Table 6.2 summarises the results of international equity beta estimates for each sample, using data up to December 2025. Using a debt beta of 0.1, the average re-levered equity beta of our new international sample is 0.68 over the longest period, and 0.53 for the recent 5 years. These estimates are in line with those of other samples that we analysed. The results of all the samples are similar because there is significant overlap in the firms in each of the samples.

Table 6.2 International equity beta estimates, weekly OLS, re-levered to 60% gearing, as at December 2025

Sample	No. of firms	Average				Median			
		Debt beta = 1 (Central)		Debt beta = 0 (Sensitivity)		Debt beta = 1 (Central)		Debt beta = 0 (Sensitivity)	
		Long est	5 yrs	Long est	5 yrs	Long est	5 yrs	Long est	5 yrs
AER (2026)	48	0.68	0.53	0.72	0.57	0.70	0.50	0.73	0.53
AER (previous)	56	0.73	0.56	0.76	0.60	0.73	0.53	0.77	0.57
NZCC (2023)	48	0.78	0.61	0.81	0.65	0.75	0.55	0.77	0.57
ERAWA (2022)	58	0.72	0.59	0.75	0.63	0.72	0.54	0.74	0.57
QCA (2021)	26	0.69	0.49	0.73	0.53	0.72	0.46	0.75	0.51
ENA (2024)	41	0.67	0.49	0.69	0.51	0.72	0.49	0.74	0.52

¹⁴⁵ AER, *Preliminary sample of international firms tickers*, December 2025.

¹⁴⁶ NZCC, *Cost of capital topic paper, Part 4 Input Methodologies Review 2023 – Final decision*, December 2023, pp.348-350; ERA, *Explanatory statement for the 2022 final gas rate of return instrument*, December 2022, pp.237-238; QCA, *Rate of return review, Version 4*, September 2024, pp.124-126.

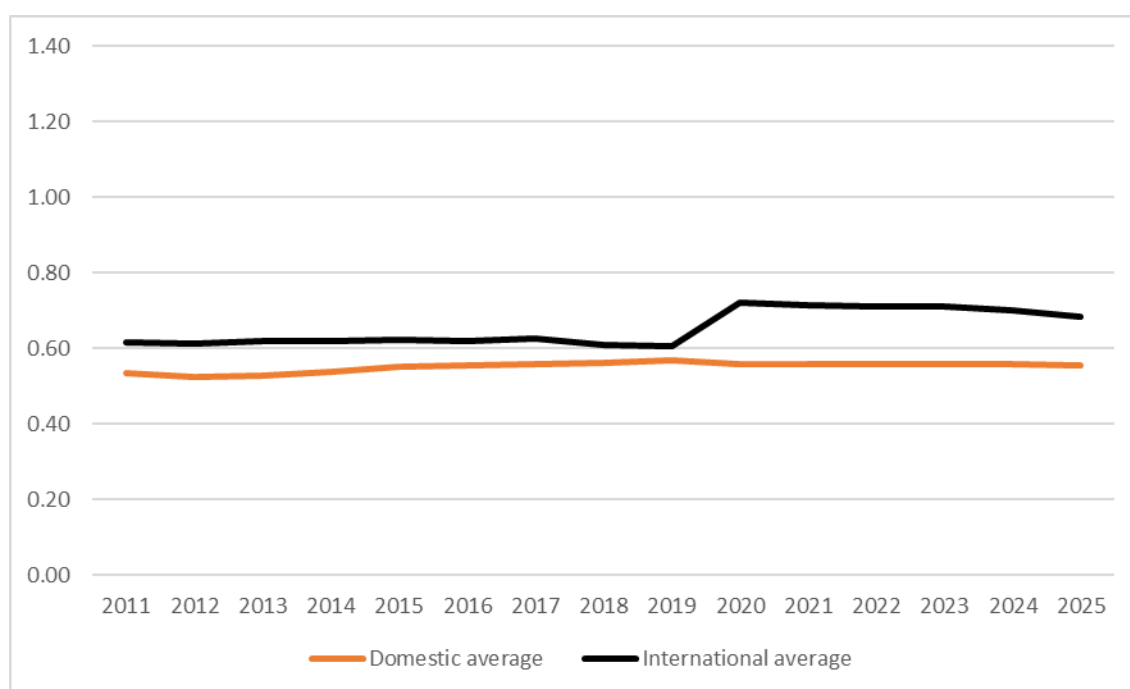
¹⁴⁷ ENA, *CEG Response Appendix A: firm profile with analysis*, December 2024; ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER's 2026 Rate of Return Instrument Review*, December 2025, p. 32.

Sample	No. of firms	Average				Median			
		Debt beta = 1 (Central)		Debt beta = 0 (Sensitivity)		Debt beta = 1 (Central)		Debt beta = 0 (Sensitivity)	
		Long est	5 yrs	Long est	5 yrs	Long est	5 yrs	Long est	5 yrs
ECA (2025)	3	0.66	0.62	0.70	0.66	0.68	0.70	0.71	0.75
All	96	0.70	0.59	0.74	0.62	0.72	0.54	0.75	0.57

Source: AER analysis; Bloomberg.

Figure 6.3 compares the average longest-period rolling estimates over the last 15 years for domestic and international equity betas (based on our new sample). International estimates have been consistently higher than domestic estimates. Both estimates have been relatively stable over time, though there is a small but noticeable divergence during the COVID-19 period in 2020, when international estimates increased while domestic estimates decreased.

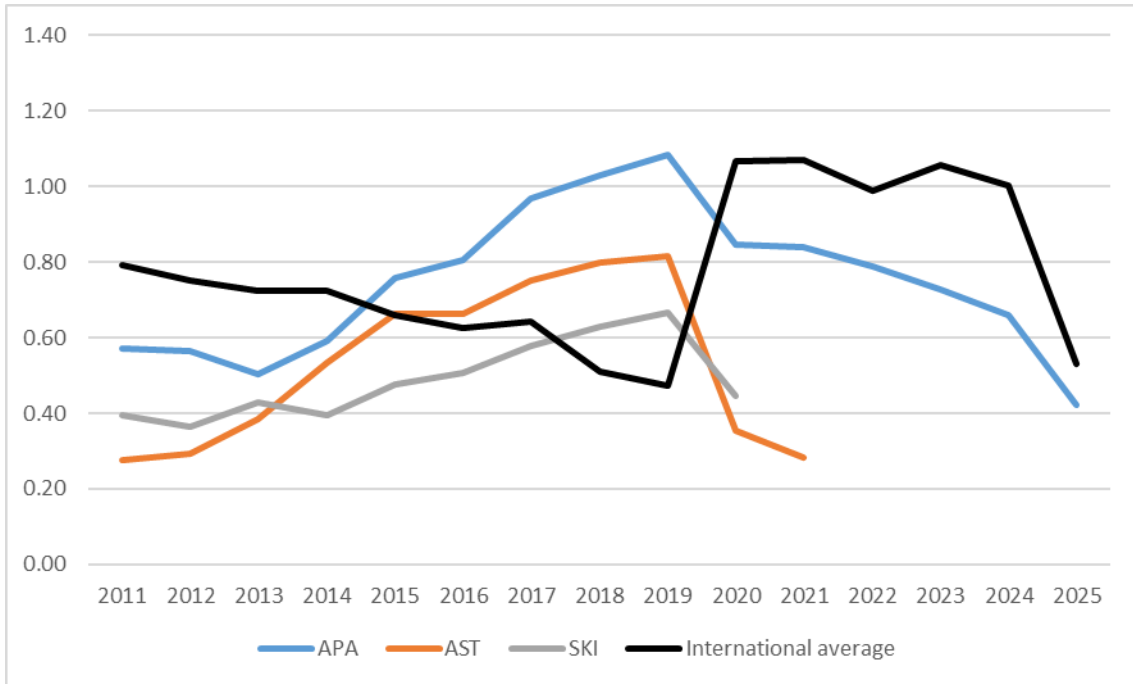
Figure 6.3 Comparison of average domestic and international beta estimates, longest-period rolling, weekly OLS, re-levered to 60% gearing using debt beta of 0.1, as at December each year



Source: AER analysis; Bloomberg.

Figure 6.4 shows the movements in 5-year rolling equity betas over the past 15 years. Both domestic (APA Group) and international (our new sample) 5-year equity beta estimates have declined since the making of the 2022 RORI. Moreover, domestic equity betas increased from 2011 to 2019 but declined from 2019 to 2020 during the COVID-19 period; while international betas decreased from 2011 to 2019 and then rose sharply from 2019 to 2020. This suggests that domestic and international equity beta movements may not be well correlated.

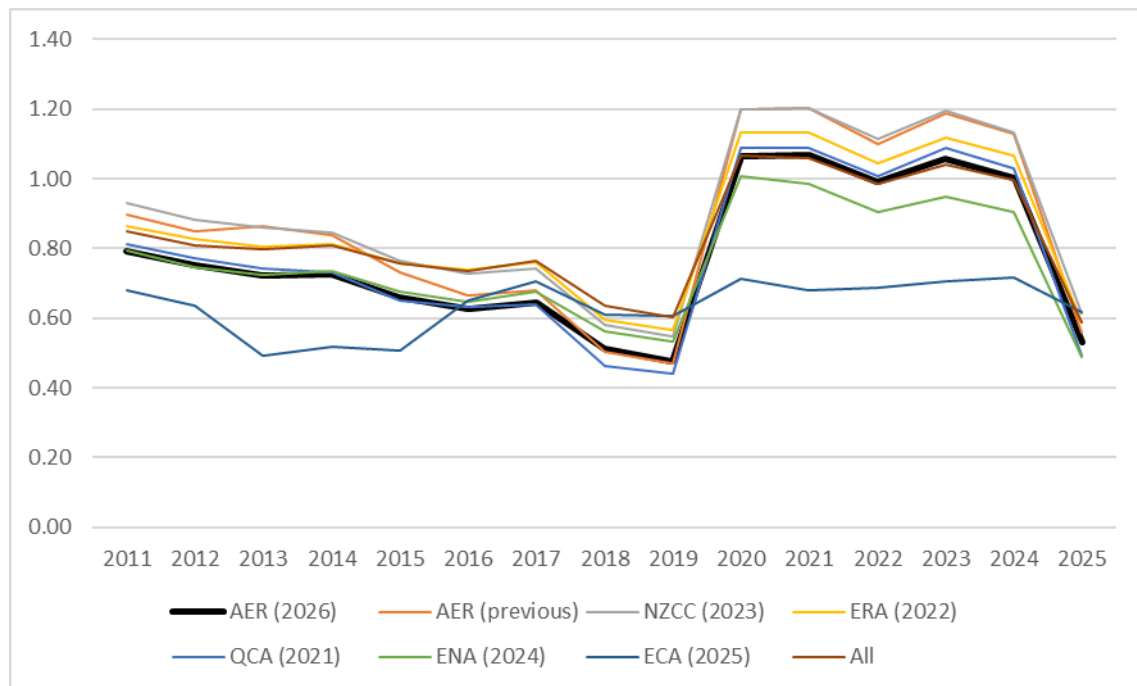
Figure 6.4 Comparison of domestic and international beta estimates, 5 years rolling, weekly OLS, re-levered to 60% gearing using debt beta of 0.1, as at December each year



Source: AER analysis; Bloomberg.

Figure 6.5 compares the movements in 5-year rolling equity betas over the past 15 years for each of the international samples we analysed. It shows that these international samples are highly correlated with each other, due to the significant overlap in the firms in these samples. One notable exception is the estimates of the ECA (2025) sample, which have been relatively flat compared with the other samples. The ECA sample consists of only 3 firms and has less overlap with the other samples.

Figure 6.5 Comparison of average international beta estimates, 5 years rolling, weekly OLS, re-levered to 60% gearing using debt beta of 0.1, as at December each year



Source: AER analysis; Bloomberg.

6.5 Point estimate

Our draft decision is for a point estimate of 0.55 for equity beta for the 2026 RORI, based on our view that an appropriate range of equity beta estimates is between 0.4 and 0.7 at this time.

Our draft decision is based on our empirical estimates using data updated to December 2025, which show the following.

- For our domestic comparator set, the average equity beta estimate is 0.56 over the longest period. The estimates of the 5 majority-regulated firms (AusNet Services Limited, DUET Group, Envestra Limited, GasNet Australia Group, and Spark Infrastructure Group) tend to be around 0.4.
- For our international sample, the average equity beta estimate is 0.68 over the longest period. This is broadly consistent with our estimates of other international samples (as proposed by our stakeholders or used by some other regulators) which tend to be around 0.7.
- The 5-year equity beta estimates of both domestic (APA Group) and international firms are currently below their longest-period estimates.

Comparing with our equity beta value of 0.6 from the 2022 RORI, we consider that a reduction to 0.55 is appropriate for the following reasons:

- We recognise that the equity beta estimates of the majority-regulated domestic firms are below the average estimate of our domestic comparator set.

- We have refined our approach to estimating equity beta for international firms, including developing a new international sample and introducing a debt beta of 0.1, resulting in lower international estimates compared with our approach from the 2022 RORI.
- At the time of the 2022 RORI review, the 5-year estimates (which we give less weight to than the longest-period estimates) had declined for domestic firms but had significantly increased for international firms, and we considered it prudent to maintain a value of 0.6.¹⁴⁸ Our latest update shows that the 5-year estimates of both domestic (APA Group) and international firms have declined and are now below their longest-period estimates.

The CRG and ECA submitted that the equity beta value should be reduced to 0.5 or below, based on estimates of majority-regulated domestic NSPs.¹⁴⁹ Their view is supported by the Australian Council of Social Service (ACOSS), JEC and IEEFA.¹⁵⁰ On the other hand, ENA proposed a value of 0.7 based on a combined sample of domestic and international firms, where international firms make up an overwhelming majority.¹⁵¹ These estimates are consistent with our range of possible estimates of 0.4 to 0.7 for equity beta.

We consider it appropriate to use both domestic and international data, but to not rely solely on either because both samples have their limitations. Although our domestic comparator set has reduced over time due to ASX delistings, international firms are imperfect substitutes to our domestic NSPs. Overall, we consider that the relative merits of using domestic data, notwithstanding its largely historical nature, outweigh those of using international data.

Given the significant differences between domestic and international data, we produced separate empirical equity beta estimates for each sample, rather than combining them into a single sample. Our approach in this draft decision is to continue to exercise regulatory judgement in selecting an appropriate point estimate for equity beta based on the range of domestic and international equity beta estimates. Accordingly, our draft decision is for an equity beta value of 0.55 for the 2026 RORI.

ENA, Marinus Link, IFM Investors, APG Asset Management and AustralianSuper submitted that the equity beta values of other regulators, such as ERAWA, NZCC and most European regulators, tend to be higher than our current value of 0.6,¹⁵² and this would also apply to our

¹⁴⁸ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp. 171-172.

¹⁴⁹ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, pp.31-32; ECA, *2026 Rate of Return Instrument Discussion Paper*, December 2025, p.3; ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER's 2026 Rate of Return Instrument Review*, December 2025, pp.40-42.

¹⁵⁰ ACOSS, *Submission 2026 RORI*, December 2025, p.2; IEEFA, *Rate of Return Instrument Review discussion paper*, December 2025, p.3; JEC, *Rate of Return Instrument Review discussion paper*, December 2025, p. 5.

¹⁵¹ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp.52-55; ENA, *Attachment A - Frontier Economics Report Beta estimation issues*, December 2025, p. 4.

¹⁵² ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp.55-58; Marinus Link, *Rate of Return Instrument - Review discussion paper*, December 2025, p.2; APG, AustralianSuper, IFM, *Response to AER Rate of Return Instrument Discussion Paper and Eligible Experts' Report*, December 2025, p. 1.

draft decision value of 0.55. Our view has long been to not use other regulators' decisions to directly inform our own estimate.¹⁵³ We have examined other regulators' approaches to estimating equity beta throughout this chapter and have made our own independent assessment in deciding whether to adopt elements of these approaches. As our resulting approach is not identical to that of any other regulator, it follows that our resulting equity beta estimate may also be different to that of other regulators.

¹⁵³ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp. 185-186.

7 Trailing average approach to estimating the return on debt

In estimating the return on debt, we currently apply a 10-year simple trailing average under the 2022 RORI. Under this approach, the return on debt is a simple average of benchmark interest rates over the past 10 years. The simple trailing average is updated annually, with one-tenth of the return on debt trailing average updated each year. We transitioned network service providers (NSPs) to the simple trailing average after 2013, when it replaced the on-the-day approach, which involved fixing the allowed return on debt at the start of the regulatory control period for the duration of the period. Most NSPs that we regulate are now on a simple trailing average, with a small number still transitioning to this method.

The simple trailing average delivers stable and predictable allowed return on debt revenues under typical economic conditions. However, its effectiveness in matching incurred debt costs relies on an implicit assumption about how much debt networks raise over time. A key issue in this review is whether this assumption warrants a change in approach in circumstances where NSPs raise materially larger volumes of debt than assumed under the simple trailing average approach, and where current interest rates differ materially to the historical rates reflected in the simple trailing average.

This chapter considers whether a weighted alternative to the simple trailing average approach is appropriate to address these circumstances and sets out our draft decision and the reasons for it.

7.1 Draft decision

Our draft decision is to retain the simple trailing average approach for estimating the return on debt under the 2026 RORI. This represents no change from the approach used by the AER since 2013.

This approach reflects a benchmark financing strategy where debt is issued progressively over time, with approximately one-tenth of the debt portfolio refinanced each year. In our view, this approach provides ex-ante efficient compensation on debt capital over the term of the regulatory asset base (RAB) if a full transition from the on-the-day rate is applied.¹⁵⁴

A key issue considered in this review is that the conditions under which the simple trailing average delivers an outcome that best aligns the allowed return on debt with incurred debt costs may not hold under all circumstances. For example, large capital programs associated with the AEMO Integrated System Plan (ISP) can result in debt being raised in amounts and timings that differ materially from the 10% annual refinancing assumption. In principle, a weighted trailing average approach to setting the return on debt may better reflect incurred borrowing costs in these circumstances, relative to the simple trailing average. This is because a weighted trailing average weights annual interest rates flowing into the trailing

¹⁵⁴ AER, Final decision APA VTS gas access arrangement 2018 to 2022 Attachment 3 - Rate of return, November 2017, pp. 326–328. AER, Final decision AusNet Services distribution determination 2016 to 2020 Attachment 3 - Rate of return, May 2016, pp. 307–308

average according to the share of new debt issued each year. This may more closely align the regulatory allowance with the financing costs that regulated businesses incur.

While we have found that the implicit assumption that businesses raise around 10% debt in each year may not hold, we have also found that only a small number of large businesses with large investment programs are materially impacted. In these circumstances, we consider that the best way to address this issue would be through a targeted mechanism applying a weighted trailing average to the materially impacted businesses rather than a broad change in approach. We have considered whether a threshold-based targeted approach could achieve this, however, such an approach would be problematic. Any threshold/trigger to apply a weighted trailing average in a targeted way would be somewhat arbitrary, introduce unnecessary complexity and create incentives for strategic behaviour to hit or avoid the trigger depending on what most benefited the business. Stakeholders and the Eligible Experts broadly agreed with our views.

Moving to the weighted trailing average approach across all NSPs would have a transitional impact on consumers at the current point in time. We consider the existing simple trailing averages for NSPs (i.e. an average of interest rates over the last 10 years) is likely to be below the long run equilibrium interest rate. This reflects a prolonged period of unusually low interest rates, largely due to relatively low inflation and then stimulatory monetary policy during the COVID pandemic. In these circumstances, a move to a weighted trailing average now would be expected to increase the allowed return on debt over the next 10 years and increase costs for consumers. For instance, assuming the current cost of debt rates remain at around 6% per annum, we estimate that a move to the Queensland Treasury Corporation (QTC) approach to determining a weighted trailing average could increase the amount consumers pay for network services (across all the NSPs we regulate) by around \$200 million over the next 9 years relative to staying with the simple trailing average. We note that global economic events and uncertainties have the potential to influence economic growth, interest rates and inflation, thereby influencing this impact.

In making our draft decision to retain the simple trailing average we have been particularly mindful of the need for a targeted and proportionate solution that is not unnecessarily complex, including reasonable transition costs to address the identified problem. We are also mindful of the potential impact of changing approaches now given current cost-of-living pressures faced by consumers. These concerns were highlighted in submissions from the Consumer Reference Group (CRG), Energy Consumers Australia (ECA) and several other consumer representative organisations.¹⁵⁵

7.2 What has changed since the 2022 RORI review

In the 2022 RORI review, we considered whether a weighted trailing average approach may be appropriate in circumstances where NSPs raise materially larger volumes of debt than assumed under the simple trailing average framework. At that time, we concluded that material differences between the simple trailing average and the weighted trailing average

¹⁵⁵ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 35; ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER 2026 Rate of Return Instrument Review* - December 2025, p. 8.

approaches were likely to arise only in specific circumstances, such as where both interest rates and debt balances increase significantly over relatively short periods.

As part of the 2026 RORI review, we have reconsidered this issue as it was identified in the 2022 RORI review as requiring further consideration.

7.2.1 Discussion paper and approaches considered

Our discussion paper considered whether refinements to the simple trailing average framework may improve the alignment between the regulatory allowance and borrowing costs in circumstances where debt balances increase significantly.

The discussion paper examined two potential weighted trailing average approaches, including an illustrative approach that we developed, and a revised approach proposed by QTC. These approaches were intended to address circumstances where the standard refinancing assumption underpinning the simple trailing average framework may not hold, particularly during periods of large capital investment programs.¹⁵⁶

The discussion paper explored the potential benefits, risks and trade-offs associated with these alternative approaches, and sought stakeholder views

7.2.2 Eligible Experts' views

The Eligible Experts provided views on whether refinements to the trailing average approach are appropriate. While they identified challenges in estimating the return on debt, they expressed differing views on whether, and how, the approach should be refined. We have had regard to these views in our assessment below.

Associate Professor Partington

Associate Professor Partington does not support trailing average approaches, including weighted variants, and considers that they create an incentive mismatch because they rely on historical costs rather than the current opportunity cost of capital. He explains that when the trailing average is below the current cost of debt, it creates an incentive for under-investment; while when it is above the current cost, it may encourage over-investment. He considers that this issue would arise under any weighted trailing average approach that does not fully reflect current market rates.¹⁵⁷

He notes that this concern is particularly relevant in the current environment, where interest rates have increased materially. In these circumstances, the trailing average reflects earlier lower rates, resulting in an allowed return on debt that is below the opportunity cost of capital for an extended period. He considers that this may contribute to under-investment at a time when significant capital expenditure is required.¹⁵⁸

More broadly, Associate Professor Partington considers that the appropriate approach is to estimate the return on debt based on the current opportunity cost of capital and, therefore, prefers an on-the-day approach, under which historical interest rates play no role. He

¹⁵⁶ AER, *2026 Review Discussion Paper*, 4 August 2025, p. 20

¹⁵⁷ AER, *2026 RORI Review - Eligible Experts' Report*, 24 November 2025, p. 69.

¹⁵⁸ AER, *2026 RORI Review - Eligible Experts' Report*, 24 November 2025, p. 70.

considers that this approach provides a conceptually correct estimate of the cost of capital and results in value-neutral investment decisions.¹⁵⁹

He also identified a number of more fundamental issues with trailing averages, including that they weaken the relationship between the required return on assets and financing costs, result in a weighted average cost of capital that is not appropriate for present value calculations, and introduce systematic incentives for inefficient investment as interest rates change over time. He further questions whether trailing averages represent an efficient benchmark and notes that they have, in his view, been consistently outperformed.¹⁶⁰

Associate Professor Partington also raised concerns regarding impacts on consumers, noting that trailing averages may result in wealth transfers from consumers to NSPs where allowed costs exceed actual costs. While they may provide some price stability, he considers that this comes at a material cost.¹⁶¹

He considered a range of alternative approaches, including: returning to an on-the-day framework; applying trailing averages only to existing debt while using current rates for new borrowing; allowing recovery of actual costs subject to a reasonableness test; and asset-based approaches. He expresses a preference for approaches that more closely reflect current market conditions.¹⁶²

He also considered true-up mechanisms, noting that they may reduce under- or over-compensation arising from forecasting error and limit incentives for strategic behaviour. However, he highlights a number of practical and conceptual issues, including the treatment of present value effects, the definition of appropriate benchmarks, and administrative complexity. He also notes that threshold-based approaches may be arbitrary and create incentives for gaming.¹⁶³

Overall, Associate Professor Partington concludes that trailing average approaches are unlikely to provide an efficient or conceptually sound estimate of the return on debt, and prefers approaches based on current market-based measures.¹⁶⁴

Mr Kumareswaran

Mr Kumareswaran considered whether the simple trailing average remains appropriate in circumstances where NSPs are undertaking significant capital investment programs requiring the raising of large amounts of new debt. He noted that the simple trailing average assumes that 10% of the benchmark debt portfolio is refinanced each year, which may be reasonable for existing debt, but does not reflect situations where NSPs must raise substantial additional debt to fund new investment.¹⁶⁵

¹⁵⁹ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 71.

¹⁶⁰ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 72.

¹⁶¹ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 76.

¹⁶² AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 77.

¹⁶³ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 79.

¹⁶⁴ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 80.

¹⁶⁵ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 61.

He explained that new debt must be raised at prevailing market rates, and cannot be financed at the historical rates reflected in the trailing average allowance. This gives rise to a mismatch where the allowed return on debt differs from the cost of new borrowing. In his view, where market rates are higher than the trailing average, NSPs may recover less than their efficient financing costs; while where market rates are lower, they may recover more than those costs. He considers that these outcomes may affect investment decisions and would not promote the long-term interests of consumers.¹⁶⁶

To address this issue, Mr Kumareswaran considered the AER's weighted trailing average illustrative example, under which new debt is compensated at prevailing market rates and then transitions over time into a trailing average. He considered that, at a high level, this approach seems reasonable, as it recognises that NSPs cannot finance new investment at historical rates while retaining elements of the existing framework.¹⁶⁷

He also considered how such an approach would be implemented. He noted that a tranche-based transition involving multiple overlapping debt issuances would be complex and potentially costly to replicate in practice. As an alternative, he suggested a simpler transition, consistent with the approach used when the trailing average was first introduced, whereby new debt is initially financed at prevailing rates and then transitions over time into a trailing average.¹⁶⁸

Mr Kumareswaran also considered whether the approach should apply to all NSPs, or only where a trigger is met. He noted that trigger-based approaches may be arbitrary and create incentives for gaming, and therefore considers that it would be preferable to apply the approach more broadly where implementation costs are manageable.¹⁶⁹

He further considered the role of a true-up mechanism to address differences between forecast and actual capital expenditure. He noted that forecasting error may result in differences between the allowed return on debt and actual financing costs. In his view, a true-up applied on a net present value (NPV) neutral basis could address this issue by adjusting for differences between forecast and actual expenditure, and could be implemented within the existing framework without passing through actual debt costs. He considered that such a mechanism would improve alignment with efficient costs while maintaining appropriate incentives.¹⁷⁰

Professor Johnstone

Professor Johnstone considered trailing average approaches in the context of what he described as an intractable problem in setting the return on debt. He explained that NSPs borrow large sums at market interest rates at different points in time and under contracts of different lengths, while the regulator determines a single allowed rate of return. This raises the question of how that rate should be set so that it appropriately reflects borrowing costs.¹⁷¹

¹⁶⁶ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 62.

¹⁶⁷ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 62.

¹⁶⁸ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 63.

¹⁶⁹ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 64.

¹⁷⁰ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 65.

¹⁷¹ AER, *2026 RORl Review - Eligible Experts' Report*, 24 November 2025, p. 59.

He noted that, for the framework to work, there should be some matching between the rates at which NSPs borrow and the rates they are allowed, while recognising that, in a regulated context, the regulator determines both the return and associated risk. He outlined two relevant perspectives: a cost-of-service model, where the allowed rate is linked closely to borrowing costs; and a perspective that the allowed rate should not distort investment decisions toward over- or under-investment. He observed that all approaches involve compromises between these objectives, and that outcomes will differ across stakeholders.¹⁷²

In this context, Professor Johnstone explained that a trailing average can be understood as a way of tracking market rates with a lag, reflecting historical borrowing costs over time. He noted that this can result in the allowed rate appearing too low when current interest rates are higher than historical rates, and too high when current rates are lower. While these effects may balance over time, he observes that they do not address short-term under- or over-investment concerns.¹⁷³

He considered that there is no obvious answer, particularly given the complexity and administrative burden of more tailored approaches. He suggested that a pragmatic fixed rule, such as that proposed by the AER, may be appropriate. This could involve basing the cost of debt partly on previous years' rates, but placing greater weight on more recent or current rates, including potentially applying an on-the-day rate for new debt. He noted that such an approach may help avoid incentives for under- or over-investment.¹⁷⁴

More broadly, he emphasised that different approaches will fall somewhere between reflecting historical costs and current market rates, and that the choice of approach ultimately involves pragmatic regulatory judgement, rather than a purely technical solution.¹⁷⁵

7.2.3 Stakeholder views

Stakeholder views on this issue have evolved since the 2022 RORI review. In its response to the AER's 2022 draft RORI, Energy Networks Australia (ENA) expressed support for the maintenance of the simple trailing average approach, emphasising the importance of an approach that is symmetric over market cycles, stable and predictable over time.¹⁷⁶ At that time, the ENA also recommended against the application of a weighted trailing average, on the basis that it would not address the commercial viability of major new projects.¹⁷⁷ We accepted that recommendation and maintained the simple trailing average in the 2022 RORI.

In the current review, ENA and several other NSPs have advocated for a weighted trailing average approach. ENA, QTC, Transgrid, AusNet Services, Endeavour Energy, Energy Queensland, Marinus Link and the Clean Energy Finance Corporation (CEFC) support adopting a weighted trailing average, in principle. These stakeholders submitted that a weighted trailing average would better reflect the timing and scale of actual debt issuance, improve alignment with efficient financing costs, and reduce under- or over-compensation

¹⁷² AER, *2026 RORI Review - Eligible Experts' Report*, 24 November 2025, p. 59.

¹⁷³ AER, *2026 RORI Review - Eligible Experts' Report*, 24 November 2025, p. 59.

¹⁷⁴ AER, *2026 RORI Review - Eligible Experts' Report*, 24 November 2025, p. 60.

¹⁷⁵ AER, *2026 RORI Review - Eligible Experts' Report*, 24 November 2025, p. 60.

¹⁷⁶ ENA, *Response AER 2022 Draft Rate of Return Instrument*, September 2022, p. 112.

¹⁷⁷ ENA, *Response AER 2022 Draft Rate of Return Instrument*, September 2022, p. 112.

during periods of interest rate volatility, particularly where capital expenditure is large, uneven or concentrated over short periods.¹⁷⁸

These stakeholders also generally expressed a preference for a simplified weighted trailing average methodology, commonly referencing the approach developed by QTC.¹⁷⁹ They submitted that applying the prevailing benchmark cost of debt to incremental debt, while maintaining historical rates for existing debt, would better reflect efficient financing costs at the time capital is deployed. ENA further submitted that support for a weighted trailing average was conditional on the approach being simple, proportionate, consistent with past AER decisions and transparent in its outcomes.¹⁸⁰

ENA, Transgrid, AusNet Services, Endeavour Energy, Energy Queensland and CEFC also submitted that the QTC approach would be simpler and more transparent than alternative weighted trailing average models and more closely aligned with observed financing practices.¹⁸¹

At the same time, stakeholders raised concerns regarding the complexity and practicality of alternative weighted trailing average approaches. ENA, QTC, Transgrid, AusNet Services, Endeavour Energy, Energy Queensland, Marinus Link and CEFC submitted that the AER's weighted trailing average illustrative example¹⁸² was complex, impractical and inconsistent with real-world debt issuance practices, noting that firms typically issue a small number of large debt tranches rather than multiple small issuances each year.¹⁸³ These stakeholders also submitted that such approaches could increase transaction and administrative costs,

¹⁷⁸ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 64; QTC, *Submission to the 2026 Rate of Return Instrument review Discussion Paper*, December 2025, p. 5; AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts' report*, December 2025, p. 2; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p. 2; Energy Queensland, *2026 Rate of Return Instrument Review Discussion Paper*, December 2025, p. 2; Marinus Link, *Rate of Return Instrument - Review discussion paper*, December 2025, p. 1; CEFC, *Submission to the AER's Rate of Return Instrument (RORI) – Review Discussion Paper*, December 2025, p. 2.

¹⁷⁹ QTC, *Submission to the 2026 Rate of Return Instrument review Discussion Paper*, December 2025, p. 5; QTC, *Weighted Trailing Average - Draft worked example*, October 2025.

¹⁸⁰ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 64.

¹⁸¹ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 64; Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, p. 11; AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts' report*, December 2025, p. 2; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p. 2; Energy Queensland, *2026 Rate of Return Instrument Review Discussion Paper*, December 2025, p. 2; CEFC, *Submission to the AER's Rate of Return Instrument (RORI) – Review Discussion Paper*, December 2025, p. 2.

¹⁸² AER, *2026 RORI review discussion paper, Appendix A – WTA illustrative example*, 4 August 2025

¹⁸³ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 65; Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, p. 12; AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts' report*, December 2025, p. 2; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p. 2; Energy Queensland, *2026 Rate of Return Instrument Review Discussion Paper*, December 2025, p. 2; CEFC, *Submission to the AER's Rate of Return Instrument (RORI) – Review Discussion Paper*, December 2025, p. 2.

increase reliance on derivatives, and not reflect prudent funding strategies based on standard market tenors.

Stakeholders expressed differing views on how a weighted trailing average should be applied. QTC, ENA, Transgrid, AusNet Services, Endeavour Energy, Energy Queensland, CEFC and ECA supported uniform application across all NSPs, submitting that this would avoid unnecessary complexity, arbitrary thresholds and asymmetries, and reduce the risk of distorting investment incentives.¹⁸⁴ QTC further submitted that materiality thresholds should not be used, noting that thresholds would be arbitrary and could give rise to distortions and gaming behaviour.¹⁸⁵ ENA similarly submitted that thresholds would introduce unnecessary complexity and edge cases, where a small change to a network’s capital expenditure forecast could move it above or below an inevitably arbitrary threshold.¹⁸⁶ Transgrid submitted that threshold-based approaches would be particularly problematic for networks with large and variable RAB growth.¹⁸⁷

In contrast, Endeavour Energy submitted that while it supported uniform application under a simplified QTC model, a materiality threshold may be appropriate if a more complex weighted trailing average approach were adopted.¹⁸⁸ The CRG submitted that targeted application may be preferable, noting that thresholds could influence NSP behaviour and that there is no objectively correct threshold.¹⁸⁹

Stakeholders also expressed mixed views on the need for true-up or adjustment mechanisms under a weighted trailing average. ENA submitted that any mismatch between forecast and actual outcomes is already addressed through the RAB roll-forward and the capital expenditure sharing scheme (CESS), and that no separate true-up would be required.¹⁹⁰ In contrast, Transgrid submitted that a roll-forward adjustment would be required to ensure the return on debt reflects actual financing outcomes, which may require changes to how the CESS applies debt weights.¹⁹¹ QTC supported an adjustment to reconcile forecast and actual debt, particularly for large projects where timing uncertainty can materially affect

¹⁸⁴ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 64; QTC, *Submission to the 2026 Rate of Return Instrument review Discussion Paper*, December 2025, p. 8; Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, p. 10; AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts’ report*, December 2025, p. 2; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p. 2; Energy Queensland, *2026 Rate of Return Instrument Review Discussion Paper*, December 2025, p. 2; Marinus Link, *Rate of Return Instrument - Review discussion paper*, December 2025, p. 2; CEFC, *Submission to the AER’s Rate of Return Instrument (RORI) – Review Discussion Paper*, December 2025, p. 2.

¹⁸⁵ QTC, *Submission to the 2026 Rate of Return Instrument review Discussion Paper*, December 2025, p. 7.

¹⁸⁶ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 73.

¹⁸⁷ Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, p. 11.

¹⁸⁸ Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p. 2.

¹⁸⁹ CRG, *Submission to AER Rate of Return Instrument Review Discussion Paper*, December 2025, p. 39.

¹⁹⁰ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 70.

¹⁹¹ Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, p. 13.

financing costs.¹⁹² AusNet Services supported a true-up mechanism to reduce the risk of over- or under-recovery.¹⁹³ CEFC, ECA and the CRG also submitted that some form of adjustment or true-up would be required, with the CRG noting that timing could depend on materiality and may occur in the subsequent regulatory period.¹⁹⁴

Stakeholders also noted potential interactions between a weighted trailing average and existing regulatory mechanisms. QTC submitted that financing benefits would not be double-counted where a true-up and the CESS co-exist.¹⁹⁵ Transgrid submitted that the CESS would need to be modified to recognise actual rather than forecast debt weights and to avoid double-counting.¹⁹⁶ AusNet Services submitted that any overlap between a weighted trailing average and the CESS should be managed within the CESS framework and is expected to be limited.¹⁹⁷ CEFC and the CRG also noted that interaction between a weighted trailing average and the CESS could result in overlap if not appropriately addressed, with the CRG submitting that any changes to the CESS should follow the 2026 RORI review.¹⁹⁸

Finally, ECA submitted that consumer impacts of a weighted trailing average would depend on the timing of capital expenditure and interest rate movements, with modelling indicating returns would have been above the simple trailing average in recent years.¹⁹⁹ ECA attributed this to low capital expenditure when interest rates were low and higher capital expenditure coinciding with higher interest rates.²⁰⁰ On this basis, ECA submitted that a weighted trailing average could, in some circumstances, result in higher allowed revenue and prices. ECA also submitted that NSPs benefited materially from the simple trailing average approach during periods of falling interest rates and that consumers have not had a symmetrical opportunity to recover those benefits as rates have risen.²⁰¹ ECA submitted that if the return on debt methodology were changed, consumer compensation may be required, potentially through a one-off RAB adjustment.²⁰²

¹⁹² QTC, *Submission to the 2026 Rate of Return Instrument review Discussion Paper*, December 2025, p. 8.

¹⁹³ AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts' report*, December 2025, p. 2.

¹⁹⁴ CEFC, *Submission to the AER's Rate of Return Instrument (RORI) – Review Discussion Paper*, December 2025, p. 4; ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER 2026 Rate of Return Instrument Review*, December 2025, p. 17; CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 39.

¹⁹⁵ QTC, *Submission to the 2026 Rate of Return Instrument review Discussion Paper*, December 2025, p. 14.

¹⁹⁶ Transgrid, *Rate of Return Instrument – Review discussion paper*, December 2025, p. 13.

¹⁹⁷ AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts' report*, December 2025, p. 2.

¹⁹⁸ CEFC, *Submission to the AER's Rate of Return Instrument (RORI) – Review Discussion Paper*, December 2025, p. 2; CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 41.

¹⁹⁹ ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER 2026 Rate of Return Instrument Review*, December 2025, p. 12.

²⁰⁰ ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER 2026 Rate of Return Instrument Review*, December 2025, pp. 17-18.

²⁰¹ ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER 2026 Rate of Return Instrument Review*, December 2025, pp. 20-21.

²⁰² ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER 2026 Rate of Return Instrument Review*, December 2025, pp. 21.

7.2.4 AER's consideration of stakeholder views

Need for change from the simple trailing average

We agree there may be a mismatch in given periods between the regulatory allowance and the incurred cost of debt, particularly where interest rates have moved rapidly and NSPs are raising debt materially above the 10% annual refinancing profile. However, based on the available evidence, such circumstances are currently limited to a small number of transmission businesses and are not widespread across the sector.

Overall, the simple trailing average remains the preferred approach, as it continues to provide an ex-ante efficient compensation for most NSPs on debt capital over the term of the RAB if a full transition from the on-the-day rate is applied.²⁰³

We do not consider that a weighted trailing average would, at this point, better achieve the National Electricity Objective (NEO) and National Gas Objective (NGO). The simple trailing average is likely to be below the long run equilibrium/neutral interest rate, reflecting a prolonged period of unusually low interest rates largely due to relatively low inflation and then stimulatory monetary policy during the COVID pandemic. In these circumstances, a transition to a weighted trailing average would result in a net cost to consumers.

Support for a weighted trailing average in principle

We acknowledge there is currently broad stakeholder support for a weighted trailing average, in principle. In some circumstances, a weighted trailing average may better reflect the timing and scale of actual debt issuances than a simple trailing average, and we agree it has theoretical merit in those circumstances. However, any incorrect compensation under the simple trailing average is likely to be transitory as, on average, outcomes under the simple trailing average and the QTC weighted trailing average approaches will converge over time.

On efficient financing practices, we do not consider there is a single efficient debt financing practice that all NSPs follow, and any benchmark will be a simplification of actual practices.

While stakeholders have expressed preferred implementation approaches and these often differ, unconditional stakeholder support is not a prerequisite for the AER to change approach where it considers a change appropriate to best achieve the NEO and NGO.

Choice of weighted trailing average model

We note that any benchmark model for setting a weighted trailing average will not be exactly followed by any NSP. The purpose is to set a fair allowance for the return on debt that firms can raise finance against, rather than to replicate the precise financing practices of any individual business. Both the AER's illustrative example and the QTC model are simplifications of actual financing practices.

²⁰³ AER, *Final decision APA VTS gas access arrangement 2018 to 2022 Attachment 3 - Rate of return*, November 2017, pp. 326–328. AER, *Final decision AusNet Services distribution determination 2016 to 2020 Attachment 3 - Rate of return*, May 2016, pp. 307–308

However, when compared, we acknowledge the QTC model sets a simple and appropriate benchmark for all NSPs, relying on existing regulatory inputs and maintaining consistency with the existing benchmark debt framework.

Application of a weighted trailing average and triggers

We agree that uniform application would be preferred if a weighted trailing average were to be adopted. We also agree that materiality thresholds or other triggers should generally be avoided as they cause economic distortions, specifically incentives for businesses to manage their investment and financing decisions to hit or miss any trigger. This is consistent with our assessment set out in the targeted application and triggers section below.

True-up mechanisms and roll-forward

We agree that the CESS will perform an approximate true-up given that financing costs or benefits are netted out of a CESS penalty or reward. While arguably not essential given the operation of the CESS, we agree that an adjustment to reconcile forecast debt with actual debt in the forthcoming period, as done in the QTC approach, may be preferable if a weighted trailing average were introduced. Any proposed adjustment to the CESS would need to be considered outside the RORI review as the CESS is not part of the RORI.

Interaction with the Capital Expenditure Sharing Scheme

We agree that the CESS already applies returns to actual capex and that only limited adjustment may be required. We also agree that financing benefits would not be double-counted where a true-up and the CESS co-exist. To the extent the CESS uses forecast rather than actual weights, it will calculate a slightly different financing benefit or cost that is netted out from the CESS reward or penalty. This may be undesirable depending on materiality. We would need to consider if this warrants a change outside the RORI review if a weighted trailing average were introduced.

Consumer impacts and revenue outcomes

We acknowledge that a move to a weighted trailing average may have adverse consumer impacts at this point in time. A weighted trailing average is likely to result in somewhat higher or lower revenue and prices when interest rates are relatively higher or lower, respectively, and the RAB is growing.

At this time, the simple trailing average is likely to be below the long run equilibrium/neutral interest rate, and a transition to a weighted trailing average would result in a net cost to consumers. However, how material this is depends on the circumstances, including the path of interest rates and the rate of RAB growth. This is a key consideration in our draft decision to retain the simple trailing average.

Consumer compensation and distributional effects

We do not consider that a one-off consumer compensation payment would necessarily be warranted in the context of a move to a weighted trailing average. The simple trailing average provides ex-ante efficient compensation for debt capital over the term of the RAB when a full transition is applied, and any period of over- or under-compensation is likely to be transitory as outcomes under the simple and weighted trailing average approaches converge over time. However, this convergence would be more balanced if the simple trailing average were closer to the long run equilibrium/neutral interest rate. The simple trailing average has

not yet converged to that level, and a transition at this time would result in a net cost to consumers. This is a significant consideration in our draft decision to retain the simple trailing average.

7.3 AER analysis

7.3.1 Comparison of weighted trailing average approaches

QTC's weighted trailing average approach

The revised weighted trailing average approach proposed by QTC seeks to address circumstances where the current simple trailing average approach may not accurately reflect the financing costs of regulated businesses when debt levels increase materially.

The revised QTC proposal adjusts the weights applied to prevailing and historical yields to reflect changes in opening debt. Under this approach, the weight applied to the prevailing 10-year benchmark yield is determined by the increase in opening debt relative to total opening debt. The remaining weight continues to be applied to the historical yields used in the trailing average calculation.

In effect, this structure means that increases in debt are initially compensated at the prevailing benchmark yield before progressively transitioning into the trailing average over time. The revised proposal also incorporates adjustments to account for the RAB roll forward of actual expenditure that account for differences between forecast and actual capital expenditure and relies only on data already used within the AER's existing regulatory models.

Overall, the revised QTC proposal represents a relatively modest modification to the current simple trailing average framework, maintaining the existing benchmark debt tenor and relying on existing regulatory inputs.

AER's weighted trailing average illustrative example

Our discussion paper explored an alternative weighted trailing average framework to address similar concerns regarding the potential mismatch between allowed and prevailing financing costs.²⁰⁴

Under this illustrative approach, increases in debt above the standard refinancing assumption are split into 10 equal tranches. Each tranche is initially compensated using prevailing benchmark yields corresponding to maturities between one and 10 years. For example, the first tranche is compensated using the prevailing one-year yield, the second using the prevailing two-year yield, and so on until the tenth tranche receives the prevailing 10-year yield.

Over time, these transitional tranches mature and are replaced with new 10-year debt at the prevailing benchmark yield. This mechanism allows the additional borrowing to gradually transition into the standard 10-year trailing average portfolio. The structure is intended to

²⁰⁴ AER, *2026 Review Discussion Paper*, 4 August 2025, p. 22; AER, *2026 RORl review discussion paper, Appendix A – WTA illustrative example*, 4 August 2025.

smooth the impact of large borrowing events while maintaining consistency with the trailing average framework.

Importantly, the one- to nine-year tranches are not intended to represent actual debt instruments issued by regulated businesses. Rather, they are a modelling construct designed to phase new borrowing into the trailing average portfolio in a way that maintains the smoothing properties of the existing framework.

Assessment of weighted trailing average approaches

Both the QTC and AER approaches attempt to address situations where the simple trailing average assumption of approximately 10% annual refinancing may not hold, particularly where large capital programs require significant new borrowing within a relatively short period.

However, the two approaches differ in their complexity and modelling structure.

The revised QTC proposal retains the existing 10-year benchmark debt tenor and modifies the weighting of prevailing and historical yields based on changes in debt levels. By contrast, while the AER's illustrative example also adjusts the weights to accommodate changes in value of the debt levels, it also introduces transitional tranches across multiple maturities as a mechanism to phase new borrowing into the trailing average framework.

The difference between the AER and QTC weighted trailing average approaches largely reflects the use of shorter-maturity interest rates in the AER's illustrative example. The AER approach places weight on shorter-term interest rates, which results in a lower allowed return on debt relative to the QTC specification.

Although the AER's illustrative example provides a conceptual mechanism to smooth the transition of new borrowing into the trailing average using shorter debt maturities than the QTC approach, it also introduces additional modelling complexity and relies on a stylised representation of debt maturities that may not reflect typical financing practices.

While the use of shorter maturities in the AER's illustrative example leads to a lower outcome than the QTC approach, we do not consider the AER approach is necessarily more correct as it depends on assumptions made on the average term at issuance and how NSPs fund growth capex. The funding methods of the different NSPs vary and they have debt portfolios with a weighted average term to maturity at issuance that varies. Given this, we acknowledge the QTC approach sets a simple and appropriate benchmark for all NSPs if a weighted trailing average approach were to be adopted.

In submissions received, stakeholders generally favoured approaches that remain closely aligned with the existing benchmark debt framework.

Taken together, in our view, the revised QTC approach provides an appropriate implementation approach if a weighted trailing average were to be adopted. The QTC approach maintains consistency with the existing benchmark debt framework, is simple, relies on readily available regulatory inputs and represents a relatively modest modification to the current methodology. However, as set out in the next section, implementation timing considerations must be considered before any decision to move away from the current simple trailing average approach can be made.

7.3.2 Potential transition impact for consumers

The timing of any change to the return on debt methodology may affect outcomes for consumers and NSPs.

If we introduced a weighted trailing average approach, where an NSP's RAB is growing, the return on debt allowance would place greater weight on more recent borrowing costs. Currently, interest rates are well above average historical rates over the past 10 years. Given this and forecast growth in RAB values, we estimate adopting the QTC approach would be likely to result in a materially higher allowed return on debt relative to the simple trailing average outcome for the next 5 years. The difference between the approaches is less material after 5 years and outcomes converge after 9 years.

Illustrative modelling using the QTC approach suggests that this effect could be material. Based on the assumption the 10-year interest rate over February 2026 of around 6% is continued in the future, and 4% growth in the RAB across all NSPs (of which 60% is attributable to debt in line with our gearing assumption), our analysis indicates that moving to a weighted trailing average approach could increase allowed debt costs in aggregate across all NSPs by approximately \$200 million over 9 years, relative to maintaining the simple trailing average. This is because current interest rates are around 1% above the trailing average for most of the regulated businesses. As the weighted trailing average will put more weight on current interest rates when the RAB is growing, the current higher interest rates result in a weighted trailing average that is above the simple trailing average, although this difference to the simple trailing average is expected to converge to zero over 9 years. These results are shown in Table 7.1 below.

Table 7.1 Comparison of simple and weighted trailing average return on debt from the QTC approach and estimated consumer impact over the next 9 years

	FY26	FY27	FY28	F29	FY30	FY31	FY32	FY33	FY34	FY35
Simple trailing average (%)	4.65	4.75	4.90	5.09	5.44	5.80	6.00	5.97	5.98	6.00
QTC weighted trailing average (%)		4.80	4.98	5.19	5.52	5.84	6.00	5.97	5.99	6.00
Difference (%)		(0.05)	(0.08)	(0.10)	(0.08)	(0.04)	0.00	(0.01)	(0.00)	0.00
Debt RAB impacted by the weighted trailing average (\$m)		7,077	24,291	55,883	86,219	105,477	109,532	113,858	118,413	123,149

	FY26	FY27	FY28	F29	FY30	FY31	FY32	FY33	FY34	FY35
Impact to consumer (\$m)		(3.40)	(20.15)	(56.39)	(70.15)	(37.44)	0.15	(9.22)	(5.26)	0
Impact over next 9 years (\$m)										(200)

Source: AER analysis.

The modelling above is based on the following assumptions:

- Historical debt interest rates for 2017 to 2026, as shown in Figure 7.1. These reflect the average cost of debt under our current approach to setting the return on debt over every trading day in February each year.
- An average nominal growth in debt funded RAB of 4% per annum from 2026 onwards, approximately in line with past nominal RAB growth and current forecasts.
- A current 10-year maturity cost of debt of 6.0% per annum, which reflects the average cost of debt under our current approach to setting the return on debt over every trading day in February 2026.
- The 10-year maturity benchmark cost of debt of 6.0% continues into the future.
- The term structure of interest rates, based on Bloomberg and Refinitiv/LSEG data over all trading days in the month of February 2026, is maintained into the future.

We note these estimates are sensitive to the input assumptions, in particular in relation to RAB growth through time, current interest rates (and path of future interest rates), and assumptions about the future term structure of interest rates. For example, if the current interest rate decreased by 0.5% to 5.5% per annum before we make the final 2026 RORI in December 2026 and this rate continues into the future, the impact of the change under the QTC approach would be reduced from around \$200 million to around \$30 million. Conversely, a 0.5% increase to 6.5% per annum nearly doubles the impact under this approach to around \$370 million.

We note the AER cost of debt is effectively composed of:

- The cash rate in nominal terms (currently estimated by the Reserve Bank of Australia (RBA) and the Federal Treasury to be around 3.5%).
- A term premium, which is the difference between the yield on Commonwealth Government Securities (CGS) and the cash rate.
- A risk premium associated with corporate debt.

While our base assumption is the interest rate as at 28 February 2026 continues (at around 6%) into the future, we note:

- The neutral cash rate is currently forecast to be around 3.5% by both Federal Treasury and RBA (while the current cash rate is 4.35%).²⁰⁵ Therefore, while expected changes in the cash rate will be factored into the current yield on long term government securities and corporate debt, any expected reduction in the cash rate arguably supports an assumption of some reduction in the cost of debt in the future.
- In September 2025, the Parliamentary Budget Office forecast long term government bond yields of around 4.2% to 4.6% with a mid-point of 4.4% over the medium term.²⁰⁶ If the average spread to CGS in our return on debt estimate of around 1.1% is added over all trading days in February 2026, an estimate of 5.3% to 5.7% with a mid-point of 5.5% is obtained.
- It is unclear if the 10-year corporate bond risk premiums associated with our estimate of the cost of debt over the yield on 10-year CGS will remain at around the 1.1% seen over February 2026 or will revert toward a longer-term mean which we estimate at around 1.9% over the period from 2 January 2014 to 28 February 2026. For example, if the spread to CGS was assumed to revert to around 1.6% with a medium term CGS yield estimate of 4.4%, it would result in no change to the 6% (current) cost of debt estimate used in our impact analysis.

While the \$200 million estimate depends on a number of assumptions, particularly in relation to the future cost of debt, it highlights that the timing of any methodological change may have material implications for both consumers and NSPs.

7.3.3 Target application and triggers

Our discussion paper considered whether a weighted trailing average approach, if adopted, should apply to all NSPs or only to those that meet a defined trigger – for example, for businesses whose respective RABs grow above a specified threshold in a given period.²⁰⁷

In principle, a targeted approach has some appeal. The evidence in Table 7.2 shows that the problem the weighted trailing average is designed to address is largely confined to a small number of transmission businesses undertaking large ISP-related capital programs. Limiting application to those businesses would reduce the aggregate consumer impact of any potential transition to a weighted trailing average, and target the methodology change at the cases where it is most likely to improve alignment between allowed and actual financing costs.

We consider that if a weighted trailing average were to be adopted, it should apply uniformly to all NSPs rather than on a targeted basis, as set out below.

²⁰⁵ Christopher Kent, 'Reassessing Australian Financial Conditions Speech' (Speech, Address to KangaNews Debt Capital Market Summit, Sydney, 26 March 2026).

²⁰⁶ PBO, *2025-26 Medium-Term Budget Outlook: Beyond the budget*, September 2025, p. 5.

²⁰⁷ AER, *2026 Review Discussion Paper*, 4 August 2025, p. 30.

Stakeholder views

The majority of stakeholders who expressed a view on this question submitted that a weighted trailing average should apply uniformly to all NSPs, rather than being limited by a threshold. QTC, ENA, Transgrid, AusNet Services, Endeavour Energy, Energy Queensland and ECA all submitted that uniform application would avoid unnecessary complexity, arbitrary thresholds and asymmetries, and reduce the risk of distorting investment incentives. QTC further submitted that materiality thresholds would be arbitrary and could give rise to distortions and gaming behaviour. ENA similarly submitted that thresholds would introduce unnecessary complexity and edge cases, where a small change to a network's capital expenditure forecast could move it above or below an inevitably arbitrary threshold. Transgrid submitted that threshold-based approaches would be particularly problematic for networks with large and variable RAB growth.

Expert views

The Eligible Experts raised concerns about threshold-based approaches. Associate Professor Partington considered that any threshold-based approach would be arbitrary and would create incentives for gaming behaviour, noting that firms would have an incentive to manage their investment and financing decisions to fall above or below any threshold. Mr Kumareswaran similarly noted that trigger-based approaches may be arbitrary and create incentives for gaming, and therefore considered that it would be preferable to apply any weighted trailing average approach more broadly across all NSPs rather than on a selective basis, where implementation costs are manageable. Professor Johnstone noted that more tailored approaches, including threshold-based mechanisms, introduce significant complexity and administrative burden, and that a pragmatic fixed rule applicable to all businesses would be preferable.

Gaming risk

Where a threshold exists, businesses have an incentive to manage their debt raising or capital expenditure profile to fall above or below it, depending on which approach is more favourable at the time. This could delay efficient investment or distort financing decisions in ways that are contrary to the long-term interests of consumers.

Benchmarking and incentive regulation

We estimate a benchmark rate of return that applies uniformly to all NSPs, rather than determining returns based on individual circumstances. A trigger-based approach that applies a different return on debt methodology to some NSPs, but not others, is arguably inconsistent with this principle as it would effectively compensate individual businesses for their specific financing circumstances rather than providing an efficient benchmark that applies across the sector.

7.3.4 Relationship between the on-the-day return on debt and the simple trailing average

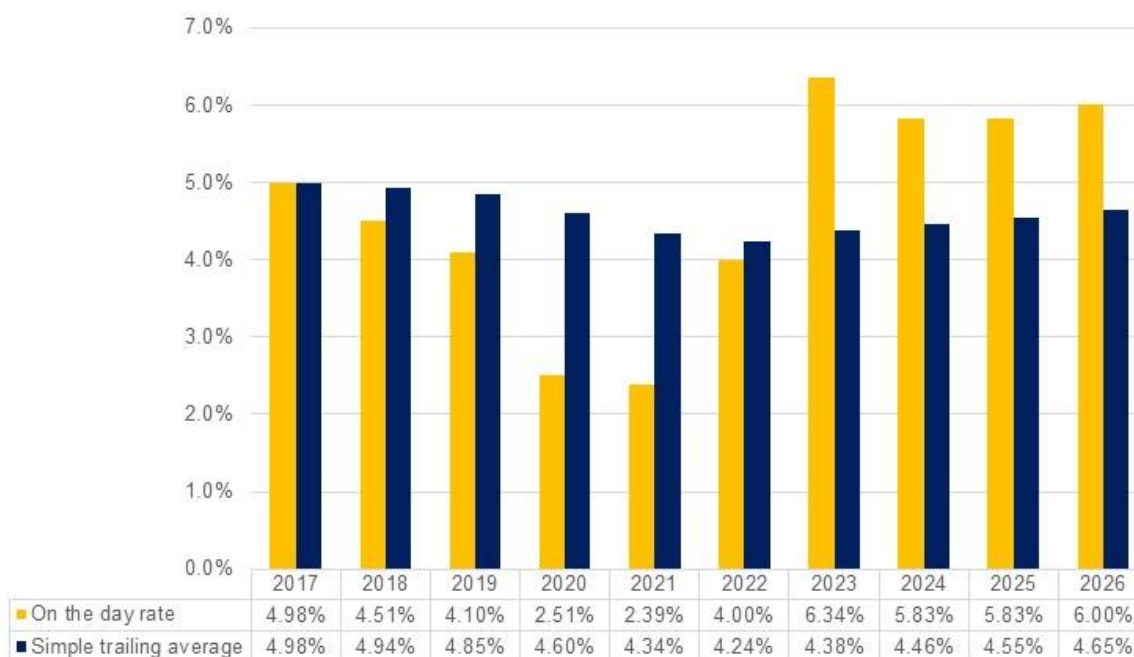
Figure 7.1 illustrates the relationship between the on-the-day return on debt estimate and the simple trailing average estimate over the period February 2017-2026. The simple trailing average approach smooths movements in market interest rates by averaging estimates over a 10-year period. As a result, it tends to respond more gradually to changes in market conditions. When interest rates rise quickly, the trailing average will typically remain below prevailing borrowing cost for some time. Conversely, when interest rates fall, the trailing average may remain above prevailing market rates.

In the period shown in Figure 7.1, interest rates declined in 2019 and 2020, reflecting monetary policy easing and broader economic conditions at the time. From 2021 onwards, interest rates increased materially as inflationary pressure emerged and monetary policy tightened. This resulted in the on-the-day estimate increasing more rapidly, while the trailing average gradually released the effect of lower interest rates observed in earlier years from its calculation.

To better understand the magnitude of these differences, we examined the annual deviation between the on-the-day estimate and the simple trailing average over the past decade, as shown in Figure 7.1. While the difference was material in most years (6 out of 10 years), exceeding 1 percentage point in each of those years, averaging the yearly differences across the period results in a mean deviation of approximately 0.05 percentage points.

This highlights an important feature of the current framework. The simple trailing average is designed to reflect a benchmark financing strategy that refinances debt progressively over time, rather than current market borrowing costs at a single point in time and it does not reflect the current cost of debt.

Figure 7.1 AER BBB+ return on debt, 10 year trailing average approach vs on-the-day return on debt (February 2017–2026)



Source: RBA; Bloomberg; Thomson Reuters.

Note: The whole month of February is used as averaging periods for both approaches. The trailing average is calculated by applying equal weights to each annual return on debt estimate feeding into it, other than the first year where the transition commenced. We selected 1 March 2017 as the starting point for the transition, with the corresponding averaging period of one month (February 2017). As such, this example is still transitioning to the 10-year trailing average, with February 2026 being the 10th year.

7.3.5 Annual change in the debt component of the RAB

Table 7.2 presents the annual change in the debt component of the RAB for a range of regulated businesses across the electricity and gas distribution and transmission sectors.

The debt component of the RAB is estimated by applying the benchmark gearing assumption to closing RAB values. The table therefore provides an indication of how the benchmark level of debt implied by the regulatory framework changes over time.

Table 7.2 Annual changes in debt component of the RAB

Business	2022	2023	2024	2025	2026	Average over 5 years
Gas distribution						
Evoenergy Gas	-8.4%	1.2%	-0.2%	-0.7%	-1.1%	-1.8%
AGN (SA)	-7.7%	3.1%	2.2%	2.5%	1.8%	0.4%
AusNet Services (Gas)	3.1%	-1.8%	3.5%	3.2%	2.3%	2.1%
AGN (Albury and Victoria)	1.8%	1.9%	2.6%	2.6%	1.5%	2.1%
Jemena Gas Networks	3.2%	2.4%	2.0%	2.5%	3.9%	2.8%
Multinet Gas	2.4%	0.8%	5.5%	8.4%	5.7%	4.6%
Gas transmission						
Amadeus	0.5%	0.5%	0.7%	0.6%	0.5%	0.6%
APA VTS	0.1%	21.7%	1.7%	-0.3%	-0.7%	4.5%
Roma to Brisbane Pipeline	2.1%	5.3%	0.8%	0.4%	-0.1%	1.7%
Electricity distribution						
Evoenergy	0.0%	-0.2%	-0.2%	2.5%	0.5%	0.5%
Ausgrid	0.2%	0.3%	0.3%	2.4%	0.2%	0.7%
AusNet Services	2.8%	3.6%	2.8%	1.7%	1.6%	2.5%
CitiPower	3.1%	2.9%	2.2%	1.4%	0.7%	2.1%
Endeavour Energy	3.3%	3.5%	3.4%	7.8%	2.0%	4.0%
Energex	2.1%	2.0%	1.8%	1.6%	13.4%	4.2%

Business	2022	2023	2024	2025	2026	Average over 5 years
Ergon Energy	2.4%	2.3%	2.1%	2.0%	27.6%	7.3%
Essential Energy	3.6%	2.9%	2.8%	10.6%	4.1%	4.8%
Jemena Electricity	7.0%	6.0%	4.6%	3.6%	1.9%	4.6%
Power and Water	5.4%	2.5%	2.0%	13.2%	5.3%	5.7%
Powercor Australia	7.5%	6.8%	4.7%	3.4%	2.6%	5.0%
SA Power Networks	2.9%	2.5%	2.3%	2.1%	9.2%	3.8%
TasNetworks	3.1%	3.4%	3.5%	7.7%	3.3%	4.2%
United Energy	5.2%	3.3%	2.5%	2.1%	1.2%	2.9%
Electricity transmission						
AusNet Services	0.9%	4.6%	2.5%	3.8%	2.6%	2.9%
Directlink	2.0%	0.9%	0.4%	-0.6%	9.7%	2.5%
ElectraNet	13.3%	10.0%	7.6%	3.2%	3.4%	7.5%
Murraylink	-1.0%	-3.8%	6.4%	0.6%	-2.0%	0.0%
Powerlink	0.5%	-1.9%	1.0%	0.1%	0.0%	-0.1%
TasNetworks	2.0%	1.4%	0.8%	14.2%	14.3%	6.5%
Transgrid	17.3%	10.8%	16.3%	26.5%	16.2%	17.4%

Source: AER Analysis.

For most regulated businesses, annual changes in the debt component of the RAB are relatively modest. While year-to-year changes can vary, the five-year averages shown in Table 7.2 provide a clearer indication of the underlying trend in debt balances.

Among gas distribution networks, the five-year averages are generally small. For example, AGN (SA) exhibits an average annual change of around 0.4 %, while AusNet Gas and AGN (Albury and Victoria) show average increases of around 2%. Jemena Gas Networks exhibits average annual changes of around 2.8%, while Multinet Gas shows somewhat larger increases, averaging around 4.6% over the period.

Similarly, gas transmission networks generally exhibit relatively small changes in the debt component of the RAB. The Amadeus Gas Pipeline shows an average annual change of around 0.6%, while the Roma to Brisbane Pipeline shows an average of around 1.7%. The APA Victorian Transmission System shows a higher average change of around 4.5%, reflecting a larger increase in one year.

Across electricity distribution networks, five-year averages are also generally moderate. Businesses such as Ausgrid, AusNet Services, CitiPower and United Energy exhibit average

annual changes of around 2% to 3%. Some networks exhibit somewhat larger increases in some years, reflecting periods of higher capital expenditure.

Larger year-to-year changes are observed for some electricity transmission networks, which tend to undertake more significant investment programs. For example, Transgrid exhibits relatively large increases in the early years of the period, reflecting major transmission investments. ElectraNet also shows larger increases in some years, while Directlink and Murraylink exhibit a larger change in one year.

Overall, the five-year averages suggest that, for most regulated networks, changes in the debt component of the RAB occur gradually over time, reflecting incremental capital expenditure and relatively stable asset bases.

This observation is relevant when considering the simple trailing average return on debt approach, which broadly reflects a financing structure in which around 10% of debt is financed each year, consistent with a 10-year debt portfolio.

Nevertheless, where the RAB grows over time, regulated businesses must typically refinance existing debt while also raising additional debt to finance new investments. In these circumstances, the amount of debt raised in a given year may exceed the benchmark financing assumption of 10%.

The results presented above reflects financing of growth in regulated assets while the debt on existing assets still needs to be refinanced.

This observation is relevant when considering the desirability of a weighted trailing average approach. Where regulated businesses raise debt above the benchmark financing assumptions due to growth in the RAB, a weighted trailing average approach may more closely reflect the financing profile of those businesses. However, the extent to which this difference is material will depend on the magnitude of asset growth and prevailing interest rate conditions.

7.4 Options considered

In coming to our draft decision, we considered the following two options (although we note that other options, in between or outside these, also exist):

- **Option 1:** Maintain the current simple trailing average approach.
- **Option 2:** Use the QTC's revised weighted trailing average approach (which is widely supported by NSPs).

In assessing these options, we considered the potential benefits, risks and trade-offs associated with each approach. In particular, we considered their ability to reflect efficient financing costs, their implications for consumers and networks, and the practicality of implementing and maintaining the methodology within the regulatory framework. We also considered whether, if a weighted trailing average were adopted, should it apply uniformly to all NSPs or only to those meeting a defined trigger or threshold.

Option 1: Maintain the current simple trailing average approach

The simple trailing average approach provides a number of benefits. In particular, it provides stability and predictability in the return on debt allowance by smoothing movements in market interest rates over time. This reduces volatility in allowed revenues and prices for consumers and networks and provides a transparent and relatively straightforward method for estimating the cost of debt. The methodology is also well understood by stakeholders and has been applied consistently across regulatory determinations since its introduction.

At the same time, we acknowledge that a weighted trailing average approach may be considered preferable in certain circumstances, particularly where the debt RAB is changing materially through time and current interest rates vary materially from the simple trailing average. By placing greater weight on interest rates in years where firms will finance relatively more debt, it may better reflect financing costs incurred.

However, adopting a weighted trailing average approach at this time would likely increase the allowed return on debt, relative to maintaining the simple trailing average approach, for a number of years. This reflects that the simple trailing average approach has not yet converged to a level consistent with long run equilibrium/neutral interest rate, following a prolonged period of unusually low interest rates.

While the case for adopting a weighted trailing average approach may have strengthened in some respects, particularly as investment levels to support the energy transition increase for some transmission businesses, adopting the QTC approach at this time would likely impose additional costs on consumers relative to maintaining the existing simple trailing average approach. On balance, we consider that the simple trailing average approach continues to represent a reasonable and proportionate method for estimating the return on debt at this time.

Option 2: QTC's revised weighted trailing average approach

QTC's revised weighted trailing average approach seeks to address circumstances where debt balances increase materially. Under this approach, the return on debt would place greater weight on borrowing costs associated with periods in which larger volumes of debt are assumed to be issued.

A benefit of this approach is that it may improve the alignment between the regulatory allowance and borrowing costs where NSPs raise debt in excess of the refinancing profile implied under the simple trailing average framework. In these circumstances, placing greater weight on prevailing borrowing costs may better reflect the financing costs associated with both refinancing of existing debt and the financing of debt needed for new investment.

We analysed the revised QTC approach as part of this review. The QTC approach:

- Exclusively uses the benchmark yields to maturity on 10-year debt.
- Is less complex to implement as it only uses 10 tranches of 10-year maturity benchmark debt, meaning it can rely on a relatively straightforward method for determining the weights applied to historical borrowing costs.

- Transitions the debt profile over time to a smooth 10-year transition average by starting with 10-year debt on 100% of the debt associated with RAB growth and then reduces the weights on this debt through time.

However, the potential benefits of such an approach depend on whether regulated businesses are expected to raise debt materially above the 10% per annum financing profile implicitly assumed under the simple trailing average. Based on the available data over the last five years, the evidence suggests that most regulated businesses have not raised debt at levels that has materially departed from this assumption.

In principle, the best way to address the circumstances of those businesses that have raised debt materially above the 10% annual refinancing profile would be through a targeted mechanism. However, stakeholders and Eligible Experts broadly agreed that a threshold-based approach would be problematic. Any threshold would be arbitrary, introduce unnecessary complexity and create incentives for gaming behaviour, and would be inconsistent with our approach of estimating a benchmark rate of return that applies uniformly across all NSPs rather than compensating individual businesses for their specific financing circumstances.

Introducing a weighted trailing average approach more broadly is also problematic. Where the simple trailing average has not yet converged to the long run equilibrium/neutral interest rate, transition effects arise. This approach would result in higher allowed debt costs, on average, over the next 10 years relative to maintaining the simple trailing average.

7.5 AER consideration

In assessing the above two options on trailing average approaches, we considered the available evidence on debt growth, developments in interest rates, stakeholders' and Eligible Experts' views, and the potential implications for consumers and networks.

Overall, the evidence suggests that while weighted trailing average approaches may improve alignment between regulatory allowances and borrowing costs in some circumstances, the situations where the differences are likely to be material will be limited. Based on the available evidence, such circumstances are currently concentrated among a small number of transmission businesses and are not widespread across the sector.

In principle, the best way to address the circumstances of those businesses would be through a targeted mechanism. However, for the reasons set out above including stakeholder views, a threshold-based approach would be problematic and is not appropriate.

We therefore considered whether applying the weighted trailing average more broadly could address this issue. However, given that the simple trailing average has not yet converged to the long run equilibrium/neutral interest rate, applying the weighted trailing average more broadly at this time would likely impose transitional costs on consumers relative to maintaining the existing simple trailing average.

On balance, we consider that the simple trailing average approach continues to represent a reasonable and proportionate method for estimating the return on debt at this time. Accordingly, our draft decision for the 2026 RORI is to retain the simple trailing average approach.

We welcome further views on our draft decision to retain the simple trailing average approach for the 2026 RORI.

8 Choice of third-party yield data providers

The AER estimates the return on debt using yield curves sourced from three independent third-party data providers: the Reserve Bank of Australia (RBA); Bloomberg; and Refinitiv/LSEG. Daily yield estimates are constructed from each provider and weighted equally to produce a final benchmark estimate. This multi-provider approach has been in place since the 2018 RORI²⁰⁸ and has performed well, with our empirical investigation of cost of debt sources and indices (EICSI) confirming that all three providers produce broadly comparable outcomes after accounting for differences in term.

In November 2023, the RBA announced it would cease publishing its spread to the Bank Bill Swap Rate series, which was a critical input used to construct daily RBA yield estimates under the 2022 RORI. As a result, the RORI has since operated using Bloomberg and Refinitiv/LSEG data only. This chapter considers options for reintroducing RBA corporate bond yield data into the framework and sets out our draft decision and the reasons for it.

8.1 Draft decision

Our draft decision for the 2026 RORI is to reinstate the use of yield curve data published by the RBA, alongside the yield curve data from Bloomberg and Refinitiv/LSEG. This represents no change from the approach set in the 2022 RORI, other than a change to the extrapolation method used to extrapolating the RBA yield curves to a maturity of 10 years.²⁰⁹

Consistent with the 2022 RORI, we will continue to estimate the return on debt using third-party yield curve data sourced from multiple independent providers. We consider that maintaining a multi-source approach supports robust and reliable estimates.

Specifically, we will rely on:

- RBA estimates derived from its published Australian corporate bond yield data.
- Bloomberg estimates from its BVAL series (BVCSAB Index and BVCSAE Index)
- Refinitiv/LSEG estimates from its blended AUD corporate series (BBBAUDBMK Index and AAUDBMK Index)

8.2 What has changed since the 2022 RORI review

On 14 November 2023, the RBA announced it would cease publishing its spread to the Bank Bill Swap Rate series in its F3 Statistical Table.²¹⁰ This series was a critical input used to extrapolate monthly RBA yield data and construct a daily yield estimate under the existing methodology. As a result, the AER was no longer able to incorporate RBA F3 yield data within the return on debt framework. In accordance with the contingency mechanism

²⁰⁸ AER, *Rate of Return Instrument – Explanatory Statement*, December 2018, p. 277.

²⁰⁹ AER, *Rate of return instrument - Explanatory statement*, February 2023, p. 225.

²¹⁰ AER, *Use of Reserve Bank data in Rate of Return calculations*, 11 December 2023.

specified in clause 26A of the 2022 RORI, estimation reverted to using Bloomberg and Refinitiv/LSEG debt yield data only.²¹¹

8.2.1 Discussion paper and approach considered

Our discussion paper considered whether the AER should reintroduce the use of yield curve data published by the RBA for the purposes of estimating the return on debt allowance. This could be done by using spread to swap data obtained from either Bloomberg or Refinitiv/LSEG, depending on availability, to extrapolate the corporate bond yields published by the RBA to 10-year tenor yields. We considered that using an average of three providers would reduce the impact of volatility or data shocks from any single source, supporting better achievement of the National Electricity Objective (NEO) and National Gas Objective (NGO).

8.2.2 Eligible Experts' views

All three Eligible Experts unanimously supported the AER's proposal to reintroduce the use of RBA yield curve data, although they expressed differing levels of commentary on the broader conceptual issues.

They noted that while using the same credit spread data from Bloomberg or Refinitiv/LSEG across both the RBA and Bloomberg or LSEG yield measurements means the measurements will not be strictly independent, they did not consider this to be a problem in this context. They observed that the underlying construct is the same across all three sources, that the RBA's inclusion adds a reputable source of data, and that the AER's objective of reducing the impact of volatility or data shocks from any single source is sensible.²¹²

Associate Professor Partington

Associate Professor Partington supported the reintroduction of the RBA yield curve data and raised no concerns with the proposed method of calculating the return on debt using alternative swap rate data from Bloomberg or Refinitiv/LSEG.²¹³

Mr Kumareswaran

Mr Kumareswaran supported the reintroduction of the RBA yield curve data and raised no concerns with the proposed method of calculating the return on debt using swap rate data from Bloomberg or Refinitiv/LSEG in place of the discontinued RBA spread to swap data.²¹⁴

Professor Johnstone

Professor Johnstone supported the reintroduction of the RBA yield curve data, although he noted that questions of methodology in this area rarely have fully satisfying answers given the variation in how different network service providers (NSPs) borrow. He suggested the AER should test the sensitivity of price and revenue outcomes to the chosen method. He also raised a broader conceptual point that the AER should be clear about whether its approach to estimating the return on debt is grounded in a theoretical CAPM-style framework

²¹¹ AER, *2022 Rate of Return Instrument (Version 1.2)*, 2 August 2023, cl. 26(a).

²¹² AER, *2026 RORI Review - Eligible Experts' Report*, 24 November 2025, p. 93.

²¹³ AER, *2026 RORI Review - Eligible Experts' Report*, 24 November 2025, p. 105.

²¹⁴ AER, *2026 RORI Review - Eligible Experts' Report*, 24 November 2025, p. 105.

or one based on actual borrowing costs, as the guiding framework has implications for how the method should be assessed.²¹⁵

8.2.3 Stakeholder views

In submissions to the discussion paper, several NSPs, including Energy Networks Australia (ENA), Queensland Treasury Corporation (QTC) and AusNet Services, expressed support for reintroducing the RBA's corporate bond yield data as an input to estimating the return on debt.²¹⁶ ENA also supported maintaining equal weighting across three independent third-party data sources, consistent with the approach adopted in previous RORI decisions.²¹⁷

ENA and AusNet Services supported a yield-based extrapolation approach using published RBA yields.²¹⁸ These stakeholders did not support approaches that rely on independently sourced swap data or the application of a swap risk premium. They noted that RBA corporate bond yields are published at effective tenors shorter than 10 years and considered that a direct extrapolation approach is more appropriate in this context.²¹⁹

QTC, supported by ENA, provided analysis indicating that a swap risk premium approach may result in downward biased and more volatile estimates.²²⁰ QTC submitted that linear extrapolation using RBA 7- and 10-year corporate bond yields represents a simpler and more accurate estimation approach.²²¹ ENA further submitted that any approach based on swap data would require adjustments for tenor differences to avoid introducing bias.²²²

8.2.4 AER's consideration of stakeholder views

We consider that third-party yield curve data can provide an independent, market-based benchmark when estimating the return on debt. In this context, data published by the RBA, alongside data from Bloomberg and Refinitiv/LSEG, can support the robustness and reliability of our estimates.

Consistent with stakeholder submissions, we have considered the merits of alternative approaches to incorporating RBA yield curve data. Some stakeholders supported simpler yield-based extrapolation methods. However, we note that linear extrapolation of corporate bond yields can, on average, over-compensate relative to observed debt costs. We also find

²¹⁵ AER, *2026 RORI Review - Eligible Experts' Report*, 24 November 2025, p. 105.

²¹⁶ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 75; QTC, *Submission to the 2026 Rate of Return Instrument review Discussion Paper*, December 2025, p. 11; AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts' report*, December 2025. p. 2.

²¹⁷ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 75.

²¹⁸ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 75; AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts' report*, December 2025. p. 2.

²¹⁹ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 75; AusNet, *2026 Rate of Return Instrument Discussion Paper and Eligible Experts' report*, December 2025. p. 2.

²²⁰ QTC, *Submission to the 2026 Rate of Return Instrument review Discussion Paper*, December 2025, p. 11.

²²¹ QTC, *Submission to the 2026 Rate of Return Instrument review Discussion Paper*, December 2025, p. 11.

²²² ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 75.

that outcomes are sensitive to both the choice of data source and the extrapolation method applied.

At the same time, we observe that the current swap-based spread approach may exhibit a small apparent downward bias. This arises from calculating spreads to swap using 7- and 10-year swap rates, while the effective tenors of the RBA corporate bond yields are typically shorter (approximately 6.5 and 9 years on average). However, this downward bias may offset, to some extent, any over-compensation associated with linear extrapolation, which complicates the assessment of net impacts across alternative approaches.

Taken together, these considerations highlight that both yield-based and swap-based approaches involve trade-offs, and that the choice of methodology can materially affect the return on debt estimate. While we consider that reintroducing RBA yield curve data is feasible, assessment is required to determine the most appropriate method for incorporating this data within our existing framework.

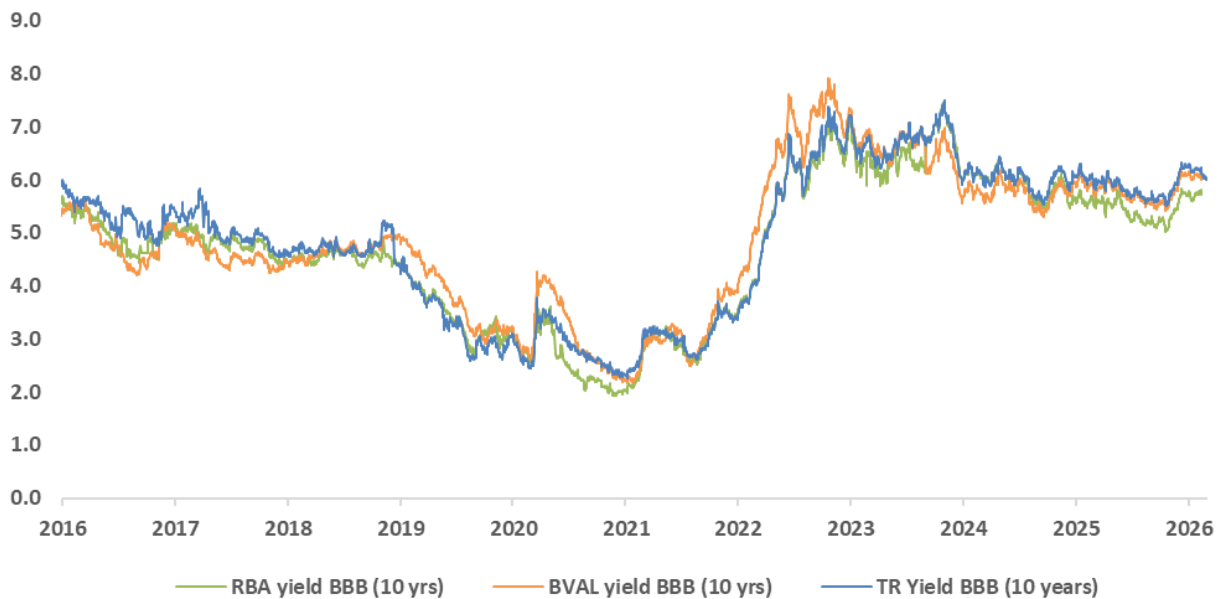
8.3 AER analysis

The AER has historically relied on yield curve data from three independent third-party providers, the RBA, Bloomberg, and Refinitiv/LSEG, to estimate the return on debt. This multi-provider approach has been in place since the 2018 RORI and, as confirmed by our empirical investigation of cost of debt sources and indices (EICSI), no single provider has been found to produce materially superior outcomes after accounting for differences in term.

Figure 8.1 presents daily BBB+ debt yield curves for each of the three providers over the period January 2016 to February 2026, constructed using the benchmark methodology set out in the 2022 RORI (10-year term, BBB+ credit rating).²²³ The figure illustrates that, over this period, the yield curves from the three providers have moved broadly together, tracking the same underlying market dynamics and exhibiting similar directional trends across different interest rate environments. While short-term divergences are observable – reflecting differences in bond selection criteria, sample composition, and curve-fitting methodologies – these tend to be transient and do not suggest any persistent systematic differences that would favour one provider over another. The broadly comparable movement across providers supports the view that averaging across the three series produces a robust and representative benchmark estimate.

²²³ AER, *Rate of return instrument - Explanatory statement*, February 2023, p. 225.

Figure 8.1 BBB+ debt yield curves for RBA, Bloomberg and Refinitiv/LSEG (January 2016 to February 2026)



Source: RBA; Bloomberg; Refinitiv/LSEG; AER analysis.

Note: Yields are shown as effective annualised rates and have been calculated according to the 2022 Instrument. Yields have been averaged over a 10-day period. RBA yield calculated as per our own estimation from 3 October 2023.

Based on the available evidence, we do not consider the methodologies used by the RBA, Bloomberg or Refinitiv/LSEG to be clearly superior to one another and our view is that the combined use of the three data providers will contribute to the achievement of the NEO and NGO to the greatest degree.

Our key reasons for this view are:

- On the bond selection criteria (including the identification of outliers) and curve-fitting methodologies, each of the RBA, Bloomberg and Refinitiv/LSEG approaches has particular strengths and limitations. We are not satisfied that any single curve is clearly superior.
- All curves require some adjustment from their published form to make them suitable for estimating the annual return on debt. We are not satisfied that one provider can be more simply or reliably adjusted than another.
- Applying equal weight to each of the three data providers is simple and fit for purpose. Developing a more complex weighting scheme would rely on contentious assumptions and we are not persuaded that the increased complexity would result in an estimator in which we have greater confidence.

- Averaging across three data providers reduces the potential impact of shocks or irregularities in any individual data series and provides a natural contingency if one provider ceases publication.²²⁴

For these reasons, our draft decision for the 2026 RORI is to estimate the return on debt using an equal-weighted average of yield estimates derived from Bloomberg, Refinitiv/LSEG and the RBA.

8.4 Options considered

The AER has assessed a range of approaches to extrapolate the RBA's corporate bond yield curve over the period from 1 January 2014 to 28 February 2026. We note that, for some approaches, data availability limited the period over which analysis could be undertaken.

The approaches we considered were:

- **Option 1** – Applying the existing spread to swap extrapolation methodology but using Bloomberg sourced swap rates for the 7-year and 10-year maturities to estimate the spreads to swap previously published by the RBA.
- **Option 2** – Using linearly interpolated swap rates that align with the effective term to maturity of the RBA's published 7-year and 10-year yields to estimate spreads to interpolated swap rates that are then used for extrapolation.
- **Option 3** – Extrapolating the RBA yield curve directly using the yields and effective tenors currently published by the RBA.
- **Option 4** – Estimating spreads to Commonwealth Government Securities (CGS) that are then used for extrapolation, where CGS yields are calculated by linearly interpolating between the nearest CGS maturities above and below the RBA's effective maturity using yields from RBA statistical table F16 (or a similar data source if table F16 ceases being published by the RBA).
- **Option 5** – Extrapolating each RBA curve, by adding the difference between Bloomberg BVAL 10-year term-to-maturity yield and the interpolated Bloomberg yield at the effective maturities of the RBA 10-year yield, to the published RBA yield.

We find that Option 1 produces results that are almost identical to those observed over the period in which the RBA published spread-to-swap data. On this basis, we use Option 1 as a benchmark against which to assess the performance of the alternative approaches. Although we do not consider Option 1 to be a viable methodology going forward, as the fixed 7-year and 10-year swap tenors do not align with the effective maturities of the RBA's published yields, introducing a material term-mismatch error, we have used it as a reference point to compare the options in terms of the mean difference and the standard deviation of differences relative to Option 1.

²²⁴ AER, *Explanatory Statement - Rate of Return Instrument*, 24 February 2023, pp. 225-227.

While slightly simpler than Options 2 and 4, Option 3 provides a slightly higher yield on average than Options 2 or 4 due to extrapolation of the base rates.

While Options 2 and 4 both address the term-matching issues identified with Option 1 and are preferable to Option 3 because they do not extrapolate the base rates, we consider that each may introduce a degree of upward bias. This reflects the likelihood that spreads to swap and spreads to CGS exhibit convexity, whereas the interpolation approaches assume linearity.

To assess the materiality of this effect, we use Bloomberg data to estimate the extent to which linear extrapolation may overstate spreads at the 10-year tenor. Our analysis indicates that extrapolating spreads to 10 years using observed yields at shorter maturities results in a mean positive estimation bias of around 1 basis point. This suggests that any bias introduced by linear interpolation of spreads to a base rate (either swap or CGS) may be small in practice.

8.5 AER consideration

On balance, we consider Option 4 (the spread to CGS method) to be the most appropriate approach. It substantially eliminates the term-matching errors present in Option 1, relies entirely on publicly available data, and is transparent and replicable. We therefore adopt Option 4 in this draft decision as our method for extrapolating the RBA yield curve in the 2026 RORI.

This approach closely approximates the swap-adjusted RBA yield curve used in previous RORIs and enables the continued use of RBA data within our estimation framework. It also restores the use of three independent data providers, which we consider contributes to the achievement of the NEO and NGO.

To assist stakeholders in their consideration of our draft decision, we have also published a Microsoft Excel workbook with the calculation of extrapolated RBA 10-years A curve and BBB curve yields.

8.5.1 Adjustment to published data

In some cases, the published third-party yield curves require minor adjustments to meet the requirements for our estimation process. Table 8.1 below sets out the current features of published yield curves that may necessitate some adjustment. Presently, these required adjustments involve extrapolation, interpolation, and conversion to an effective annual rate.

In the 2022 RORI, we adopted a common approach to the extrapolation, interpolation, and conversion for each of the published curves.²²⁵ Our draft decision for the 2026 RORI is to maintain this approach.

²²⁵ AER, *Explanatory Statement - Rate of Return Instrument*, 24 February 2023, p. 227.

Table 8.1 Necessary adjustments to published yield curves

Curve	Criteria
BVAL	Bloomberg typically publishes a daily 10-year BVAL estimate so the only necessary adjustment is conversion to an effective annual rate, which is a straightforward adjustment.
RBA	<p>The RBA only publishes data on one day per month. As a result, we are required to interpolate monthly spreads to Commonwealth Government Securities (CGS) to produce a daily yield series.</p> <p>Because of the RBA's curve-fitting methodology, its published 10-year estimate typically has an 'effective term' of less than 10 years. We extrapolate the RBA curve from its 'published' 10-year term (effective term is closer to 9 years) to an 'actual' 10-year term using linear extrapolation from the published 7-year and 10-year estimates.</p> <p>In addition, RBA estimates require conversion to an effective annual rate.</p>
Refinitiv/LSEG	Refinitiv/LSEG typically publishes a daily 10-year estimate, so the only necessary adjustment is conversion to an effective annual rate. However, Refinitiv/LSEG does not extrapolate beyond the longest term in its bond sample and the availability of its 10-year estimate may vary.

Source: AER analysis; Bloomberg; RBA; Refinitiv/LSEG.

9 Risk-free rate

The risk-free rate is a key parameter in the Sharpe-Lintner CAPM (SL CAPM), our foundation model for estimating the return on equity. The risk-free rate measures the return an investor would expect from a ‘riskless’ investment. We then add the return on this riskless asset to the equity risk premium to estimate the return on equity.

Estimating the risk-free rate requires determining the appropriate term over which returns are measured. It also requires selecting an appropriate proxy for the risk-free asset, taking into account the characteristics of the proxy and standard market and regulatory practice. An appropriate averaging period must also be specified within a defined nomination window.

In this chapter, we set out our draft decision in relation to:

- the term of the risk-free rate
- the choice of proxy for the risk-free rate
- the averaging period length
- the length of the nomination window
- the automatic application of the risk-free rate
- carve out clauses.

Stakeholder submissions on our discussion paper commented on the term of the risk-free rate, while other elements of the framework did not receive substantive comment.

9.1 Draft decision

Our draft decision is to use the yield to maturity on Commonwealth Government Securities (CGS) with a 10-year term as our proxy for the risk-free rate. This approach represents no change from the framework set out in the 2022 RORI.

In reaching this position, we have had regard to stakeholder submissions on our discussion paper. Stakeholders expressed differing views on the term of the risk-free rate.

Energy Consumers Australia (ECA) proposed adopting a 5-year term for the risk-free rate, on the basis that this would be more consistent with the Net Present Value (NPV) = 0 principle.²²⁶

Energy Networks Australia (ENA), on the other hand, submitted that the AER’s current approach to estimating the risk-free rate should be treated as settled for the purposes of the 2026 RORI review. It noted that the AER has consistently adopted a 10-year term across

²²⁶ ECA, *Attachment – EMAS Report for Energy Consumer Australia’s Submission to the AER 2026 Rate of Return Instrument Review*, December 2025, p. 44.

multiple previous reviews.²²⁷ It submitted that, consistent with the streamlined scope of the 2026 review, the risk-free rate should not be reopened in the absence of new evidence or a clear case for change. ENA therefore supported continuing to apply the existing methodology. It further submitted that, if the AER were to contemplate any departure from its established approach, stakeholders should be provided with an opportunity to make further submissions in advance of the draft decision.

We acknowledge stakeholder submissions, including ECA's view that a shorter-term approach may be more consistent with the NPV=0 principle. As we noted when we made our 2022 RORI, it has been acknowledged that aligning the term with the regulatory control period may satisfy the NPV=0 condition from a regulatory perspective, as the allowed return is reset at the start of each regulatory control period. At the same time, retaining a longer-term benchmark may satisfy the NPV=0 from an investor perspective, given it reflects the fact that investors in long-lived regulated infrastructure assets require returns consistent with long asset lives.²²⁸

These considerations reflect alternative perspectives, and stakeholders may reach differing conclusions supported by detailed analysis. On balance, we concluded in the 2022 RORI review that the case for changing from the established 10-year approach had not been made.²²⁹

In the absence of new evidence or a compelling case for change, our draft decision is to retain the existing approach for the term of the risk-free rate for the reasons we expressed in the 2022 RORI review.

We will continue to allow regulated businesses to nominate an averaging period over which we observe CGS yields to calculate the risk-free rate. The averaging period must be nominated in accordance with the following requirements:

- starts no earlier than 8 months prior to the commencement of the regulatory control period
- ends no later than 4 months prior to the commencement of the regulatory control period
- has between 20 and 60 consecutive business days in the period between the nominated start and end date
- is nominated prior to the start of the averaging period and contained in the initial proposal by the regulated business.

We have also retained the existing clause providing a default averaging period if a regulated business does not nominate an averaging period in accordance with the above requirements.

²²⁷ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 59.

²²⁸ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, pp. 108.

²²⁹ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, pp. 105-129.

Further, we have removed a redundant carve-out clause from the 2022 RORI that is no longer relevant for the 2026 RORI. This provision was previously included to address a timing issue arising from the overlap between the commencement of the 2022 RORI and certain regulatory determination processes that were underway under the 2018 RORI.²³⁰

Overall, the approach for the 2026 RORI represents no change from the framework set out in the 2022 RORI, with the exception of the redundant carve-out clause.²³¹

9.2 AER analysis and consideration

Given the extensive analysis of the risk-free rate undertaken in the 2022 RORI review, and in the absence of new evidence or a compelling case for change, our draft decision is to maintain the approach set out in the 2022 RORI for the choice of proxy for the risk-free rate, the averaging period length, the length of the nomination window, and the automatic application of the risk-free rate, with the exception of the redundant carve-out clause.²³²

9.2.1 Term of the risk-free rate

In the 2022 RORI review, we considered whether the term of the risk-free rate should align with the usual 5-year length of the regulatory control period or reflect a longer-term benchmark consistent with investor practice.²³³

At the time, we recognised that there were two arguments around the NPV=0 condition. From a regulatory perspective, NPV=0 might be satisfied by matching the term to the length of the regulatory control period. While from a long-term investor perspective, NPV=0 might be satisfied by matching the term to investor practice, which is typically 10 years. These considerations reflect the alternative perspectives held by stakeholders at the time, with consumer groups and the Australian Energy Council (AEC) favouring a shorter term consistent with the regulatory period, and network businesses favouring a longer-term benchmark consistent with investor and market practice.

On the one hand, there is a case for aligning the term with the regulatory control period. The allowed return on equity is reset at the commencement of each new regulatory period, and the rate of return should reflect the costs of providing regulated services over that period. A shorter term also avoids the mismatch between the period over which returns are earned and the period over which they are measured, and brings consistency with our approach to estimating expected inflation.

On the other hand, there is a case for retaining a 10-year term. This reflects the long-lived nature of regulated assets and market practice, where investors typically form their required returns using longer-term benchmarks. A longer-term benchmark provides a more stable and

²³⁰ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, pp. 127-128.

²³¹ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, pp. 105-129.

²³² AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, pp. 105-129.

²³³ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, pp. 107-123.

representative estimate of the risk-free rate and avoids placing undue weight on short-term movements in interest rates.

On balance, we concluded in the 2022 RORI that the case for changing from the established 10-year approach had not been made, placing weight on the following considerations:

- Stakeholders representing both consumers and industry told us that they saw merit in stability and predictability in the regulatory framework. It had been our regulatory practice to use a term of 10 years for considerable time and regulatory stability was promoted by continuing this approach.
- Changing the approach would have been of modest materiality, particularly once consequential adjustments were considered.
- We were broadly satisfied with the performance of the existing approach and considered that any change should deliver clearly superior outcomes.
- There had been a trend among Australian regulators to adopt a 10-year equity term, reflecting the view that the rate of return investors in long-lived assets require over the asset lives is better reflected by a longer-term benchmark.

Stakeholder submissions to the 2026 RORI review largely revisit these same considerations. ENA supported retaining the existing approach, while ECA proposed a 5-year term. We consider that these positions do not raise new evidence or considerations that would warrant revisiting the conclusions reached in the 2022 RORI review.

Given that most stakeholder submissions did not raise concerns with our 10-year term approach, and in the absence of new evidence or a compelling case for change, our draft decision adopts a 10-year term for the risk-free rate.

9.2.2 Choice of the proxy for the risk-free rate

In the 2022 RORI review, we considered the appropriate proxy for the risk-free rate, including whether yields on CGS should continue to be used or whether adjustments or alternative proxies should be adopted.²³⁴

We recognised that CGS yields provide a well-established and observable benchmark for the nominal risk-free rate. CGS markets are deep and liquid, and yields are transparent and widely used in financial markets and regulatory practice.

We also considered arguments that CGS yields may include a convenience yield, and therefore may not represent a pure risk-free rate.²³⁵ However, we found that the empirical evidence on convenience yields is not well established, particularly in the Australian context. The literature is unsettled, and it is not standard practice to adjust CGS yields for an estimated convenience yield. Further, any such adjustment would be difficult to estimate reliably and would introduce additional complexity and uncertainty into the estimate of the risk-free rate.

²³⁴ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, pp. 123-124.

²³⁵ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, p. 124.

More broadly, we recognised that the risk-free asset in the SL CAPM is characterised by the safety of its returns, and standard practice is to use government bond yields as a proxy. We also noted that it is common regulatory practice in Australia to use CGS yields for this purpose.

On balance, we concluded in the 2022 RORI review that CGS yields provide the most appropriate proxy for the risk-free rate. In reaching this view, we had regard to the following:

- CGS yields are consistent with the definition of a risk-free rate, reflecting securities with negligible default risk
- CGS markets are deep and liquid, supporting reliable and transparent estimation
- it is standard market and regulatory practice to use government bond yields as the proxy
- the empirical evidence on convenience yields is not well established, and any adjustment would be difficult to estimate reliably and is not supported by robust analysis.

Stakeholder submissions to the 2026 RORI review did not raise concerns with the proxy for the risk-free rate.

Given that stakeholder submissions did not raise concerns with our risk-free rate approach, and in the absence of new evidence or a compelling case for change, our draft decision adopts CGS yields as the proxy for the risk-free rate.

9.2.3 Averaging period length

In the 2022 RORI, we considered the appropriate length of the averaging period used to estimate the risk-free rate.²³⁶

We recognised that the SL CAPM does not prescribe how the risk-free rate should be estimated. In determining the averaging period, our objective is to adopt an approach that is forward-looking and relevant to prevailing market conditions, while not being unduly influenced by short-term volatility in interest rates.

We recognised that an on-the-day rate may be more reflective of current market conditions but can be highly sensitive to short-term fluctuations. Introducing an averaging period reduces the impact of this short-term volatility.

However, there is a trade-off in determining the length of the averaging period. A shorter averaging period is more responsive to prevailing market conditions, but more volatile. A longer averaging period reduces volatility, but may place less weight on more recent market conditions and depart from the on-the-day rate.

²³⁶ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, pp. 124-126.

On balance, we concluded in the 2022 RORI review that an averaging period between 20 and 60 business days provides an appropriate balance between these considerations. In reaching this view, we had regard to the following considerations:

- an averaging period reduces the influence of short-term volatility in interest rates relative to an on-the-day rate
- a 20 to 60 business day range provides a balance between stability and responsiveness to prevailing market conditions
- allowing a range provides flexibility for regulated businesses to manage volatility in the risk-free rate
- requiring the averaging period to be nominated in advance reduces the risk of selecting a period that biases the estimate of the risk-free rate.

Stakeholder submissions to the 2026 RORI review did not raise concerns with the averaging period length.

Given that stakeholder submissions did not raise concerns with our averaging period length, and in the absence of new evidence or a compelling case for change, our draft decision adopts an averaging period between 20 and 60 business days.

9.2.4 Length of the nomination window for the averaging period

In the 2022 RORI review, we considered the appropriate length of the nomination window for the averaging period.²³⁷

The nomination window specifies the period over which a regulated business may nominate the start and end dates of its averaging period. We must specify the nomination window to ensure that the RORI can be applied automatically.

We recognised that the length and timing of the nomination window involve practical considerations. In particular, the averaging period must occur sufficiently in advance of the commencement of the regulatory control period to allow for the finalisation of regulatory revenue determinations.

Under our previous approach, the timing of the nomination window created practical difficulties for finalising decisions, as there was limited time between the end of the averaging period and the commencement of the regulatory control period.

On balance, we concluded in the 2022 RORI review that the nomination window should be specified so that a nominated averaging period must start and end between 8 months and 4 months, respectively, before the commencement of the regulatory control period. In reaching this view, we had regard to the following considerations:

- it provides sufficient time to finalise regulatory revenue determinations following the averaging period

²³⁷ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, p. 126.

- it supports the automatic application of the RORI
- it maintains flexibility for regulated businesses in selecting their averaging period within the allowed window
- it reduces the risk of selecting an averaging period that could bias the estimate of the risk-free rate.

Stakeholder submissions to the 2026 RORI review did not raise concerns with the appropriate length of the nomination window for the averaging period.

Given that stakeholder submissions did not raise concerns with the nomination window, and in the absence of new evidence or a compelling case for change, our draft decision requires the averaging period to start and end between 8 months and 4 months, respectively, before the commencement of the regulatory control period.

9.2.5 Automatic application of the risk-free rate

In the 2022 RORI review, we considered how the risk-free rate should be applied under a RORI that operates automatically.²³⁸

We recognised that the RORI is designed to apply automatically, without the need for the AER to exercise discretion in individual regulatory determinations. This requires that the methodology specifies clear and workable processes for determining the risk-free rate in a range of scenarios.

We considered circumstances where additional guidance is required to ensure the automatic application of the risk-free rate. This included situations where a final decision is delayed, where a nominated averaging period does not meet the specified criteria, and where the number of business days in an averaging period changes.

On balance, we concluded in the 2022 RORI review that it is appropriate to codify the approach to applying the risk-free rate in these scenarios. In reaching this view, we had regard to the following considerations:

- specifying clear rules supports the automatic application of the RORI without the need for discretion
- it is appropriate that nominated averaging periods remain valid in circumstances such as delays to final decisions
- including a default averaging period provides a practical mechanism where nominated periods do not meet the specified criteria.

Stakeholder submissions to the 2026 RORI review did not raise concerns with the automatic application of the risk-free rate.

²³⁸ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, p. 127.

Given that stakeholder submissions did not raise concerns with the automatic application of the risk-free rate, and in the absence of new evidence or a compelling case for change, our draft decision adopts a codified approach to applying the risk-free rate.

9.2.6 Carve-out clauses

In the 2022 RORI review, we included a carve-out provision to address a timing issue arising from the overlap between the commencement of the 2022 RORI and certain regulatory revenue determination processes.²³⁹

This provision allowed affected network service providers to nominate averaging periods consistent with the 2018 RORI, ensuring they were not disadvantaged where averaging periods had already been nominated prior to the updated framework being known.

For the 2026 RORI, this timing issue does not arise as there is no change in approach between successive RORIs. The averaging period framework has been retained from the 2022 RORI, and there are no transitional circumstances requiring alternative arrangements.

As a result, the 2022 RORI carve-out provisions are redundant and not required for the 2026 RORI for the risk-free rate.

²³⁹ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, pp. 127-128.

10 Market risk premium

The market risk premium (MRP) is the difference between the expected return on a market portfolio and the return on the risk-free asset. The MRP compensates an investor for the systematic risk of investing in the market portfolio. Systematic risk affects all firms in the market (such as macroeconomic conditions and interest rate risk) and cannot be eliminated or diversified away through investing in a wide pool of firms.

Our regulatory task is to estimate the MRP required by investors over the risk-free rate to invest in a fully diversified Australian market portfolio. This MRP, multiplied by our equity beta estimate, gives the equity risk premium for the businesses we regulate, assuming a 40% equity to 60% debt capital structure. This equity risk premium is added to the risk-free rate to determine the allowed return on equity, which should reflect the opportunity cost of equity investment given its level of systematic (or non-diversifiable) risk.

10.1 Draft decision

Our draft decision is to set an MRP of 6.1% per annum over the yield to maturity on Australian Commonwealth Government Securities (CGS) with a term to maturity of 10 years. This is a decrease from 6.2% in the 2022 RORI. We have estimated that an MRP of 6.1% for the 2026 RORI will likely deliver an aggregate reduction in regulated revenues of around \$190 million via regulatory revenue determinations to be set under the 2026 RORI, all else equal.²⁴⁰ This is estimated to reduce the average residential customer bill by about \$1.50 per annum.

The MRP was not identified as a key area of focus for this review. However, in response to submissions, we have considered whether a change to the point estimate is warranted, applying the same methodology used in the 2022 RORI and having regard to updated evidence.

In response to our discussion paper, Energy Networks Australia²⁴¹ (ENA) and Endeavour Energy²⁴² submitted that the AER should maintain the existing approach to estimating the MRP, as there has been no material change in the underlying evidence or academic literature since the 2018 and 2022 RORIs. The Consumer Reference Group (CRG)²⁴³ identified the potential for upward bias in the MRP, including in relation to the use of the arithmetic mean of the historical excess returns (HER) estimate.

²⁴⁰ The estimated impact for each year is calculated by multiplying the forecast closing equity proportion of the RAB in the prior year by the reduction in the equity risk premium attributable to the market risk premium of 0.06 percentage points. The total impact is the sum of the impacts in each year. Where forecasts are not available, we have assumed nominal RAB growth of 4% per annum.

²⁴¹ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 60.

²⁴² Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p. 3.

²⁴³ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 8.

Consistent with our previous RORIs, we estimate an *unconditional* MRP. This reflects a stable, long-run estimate of the equity risk premium that evolves gradually over time, rather than one that varies with short-term movements in market conditions.

In this review, we have assessed a range of relevant evidence, including the HER evidence, forward-looking estimates derived from dividend growth models (DGM), survey evidence and other market indicators. We have evaluated this evidence in terms of its consistency with economic and financial theory, and its contribution to achieving the National Electricity Objective (NEO) and National Gas Objective (NGO). This is consistent with the methodology we used to determine the MRP in 2022.

The HER evidence, based on the arithmetic average, suggests a range of approximately 6.1% to 6.6%, which is consistent with the range adopted in the 2022 RORI review. The updated arithmetic average for the most recent sample period has increased from 6.2% to 6.3%, which is broadly consistent with the midpoint of the range. The updated weighted average for the most recent sample period remains lower than the arithmetic range at 6%, although it has increased from 5.9% estimated in 2022.

DGM estimates have declined materially relative to 2022, ranging from approximately 3.6% to 4.3%. Survey evidence indicates median estimates of around 6%, with no material change in recent years. Market indicators, including dividend yields and implied volatility, are below long-run averages, and credit spreads have narrowed, suggesting downward pressure on the MRP.

While the arithmetic average of the HER, considered in isolation, could support an increase in the MRP, the DGM estimates and market indicators point in the opposite direction and supports a decrease in the long-run equity risk premium.

Consistent with the 2018 and 2022 RORIs, we had regard to a range of evidence in determining an appropriate point estimate within the HER based range, rather than adopting a mechanical update based on any single source of evidence. On balance, having regard to available evidence and stakeholder submissions, we consider that reducing the MRP to 6.1% represents an appropriate estimate of the long-run equity risk premium. The evidence available to us is discussed below.

10.2 AER analysis and consideration

10.2.1 What has changed since the 2022 RORI review

Since the 2022 RORI review, we have continued to apply the same methodological framework for estimating the MRP. This includes consideration of the HER, DGM and other supporting evidence, and the use of an unconditional MRP.

We have not identified any new developments in the academic literature or evidence that would warrant a change to this methodology. The key considerations remain consistent with those examined in the 2022 RORI review.²⁴⁴

²⁴⁴ AER, *Explanatory Statement – Rate of Return Instrument*, 24 February 2023, pp. 134-170.

However, we have continued to update the inputs used to inform the point estimate of the MRP in our annual update reports for the information of stakeholders.²⁴⁵ This includes updating the relevant data and reviewing how it informs the appropriate parameter.

Given these facts, and consistent with our targeted review approach and stakeholder submissions, in this review we have focused on whether the point estimate remains appropriate.

10.2.2 Stakeholder views

In response to our discussion paper,²⁴⁶ ENA and Endeavour Energy submitted that the AER should apply the existing approach for the 2026 RORI, noting that the MRP was not identified as a priority issue for this review and does not warrant reconsideration.²⁴⁷

ENA submitted that the current approach is anchored to the long run arithmetic average of the HER, with other evidence used as secondary checks, and that there is no new evidence to justify a departure from the approach adopted in the 2018 and 2022 RORIs.²⁴⁸

Endeavour Energy noted that any refinements to the approach could be considered outside the current review and sought clarity on the data period to be used to inform the estimate.²⁴⁹

CRG, identified the potential for upward bias in the MRP point estimate selected in the 2022 RORI review.²⁵⁰ In particular, limitations in the HER estimate, including the exclusion of geometric averages, survivorship bias skewing results, and the influence of the sample period ending at a relatively high point in the market.

10.2.3 Framework for estimating MRP

We have updated the HER to the end of calendar year 2025. Table 10.1 presents arithmetic, geometric and weighted averages across a range of sampling periods, with the corresponding 2022 RORI review estimates shown in brackets.

The arithmetic average of the HER estimates ranges from 6.1% to 6.6% across the available sample periods, which is consistent with the range adopted in the 2022 RORI review, with modest increases across some sample periods. For the most recent sample period (1988–2025), the arithmetic average is 6.3%. However, the arithmetic average is subject to upward bias, with the degree of bias increasing with the length of the investment horizon relative to the historical sample period.

²⁴⁵ AER, *Rate of Return Annual Update 2025*, November 2025.

²⁴⁶ AER, *2026 Review Discussion Paper*, 4 August 2025.

²⁴⁷ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 60; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p. 3.

²⁴⁸ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 60.

²⁴⁹ Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p. 3.

²⁵⁰ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 8.

On the other hand, the geometric average is lower and ranges from 4.4% to 5.1% across sample periods, also broadly unchanged from the 2022 RORI review. For the most recent sample period, the geometric average is 5.0%. The geometric average tends to produce downward biased estimates, particularly where the investment horizon is short relative to the sample period.

The horizon weighted average addresses these respective biases by blending the two measures in proportion to the forecast horizon relative to the sample period. For the most recent sample period, the weighted average is 6.0%, a small increase relative to the 2022 RORI estimate of 5.9%.

DGM estimates are materially lower, ranging from approximately 3.6% to 4.3% depending on model specification and averaging period. These estimates have also materially declined relative to those observed in the 2022 RORI review (5.0% to 5.8%). While we do not place primary reliance on DGM estimates, we have some regard to them for directional purposes. We note some caution is warranted in this regard given that elevated asset valuations and the influence of recent inflation dynamics may affect the reliability of these models in the current period.

Survey evidence indicates median estimates of around 6%, with no material change in recent years.

Market indicators show that dividend yields and implied volatility are below their long run averages in recent periods, while credit spreads on corporate debt have narrowed relative to historical levels, suggesting downward pressure on the MRP.

In summary, when all of the evidence is assessed as a whole, the evidence is mixed. The arithmetic average HER estimate supports a modest increase in the MRP, while the weighted average suggests a point estimate should be lower. DGM estimates, survey evidence and market indicators similarly suggest the MRP may have decreased.

10.2.3.1 Historical excess returns

We have updated the HER to the end of calendar year 2025.²⁵¹ Across the sample periods, the estimates remain broadly stable, with only modest changes relative to the 2022 RORI review (2022 figures in brackets). The weighted averages are generally lower than the arithmetic averages, and they have changed marginally over time.

Table 10.1 Historical excess returns (10-year term as at 31 December 2025; 2022 RORI review estimates in brackets)

Sampling Period	Arithmetic average (%)	Geometric average (%)	Weighted average (%)
1883-2025 (1883-2022)	6.4% (6.3%)	5.1% (5.0%)	6.3% (6.3%)
1937-2025 (1937-2022)	6.1% (6.1%)	4.4% (4.4%)	6.0% (5.9%)

²⁵¹ Our historical excess returns estimations method is described in AER, *Rate of Return Instrument, Explanatory Statement*, February 2022, pp. 139-145.

1958-2025 (1958-2022)	6.6% (6.6%)	4.5% (4.4%)	6.3% (6.3%)
1980-2025 (1980-2022)	6.6% (6.6%)	4.7% (4.6%)	6.2% (6.1%)
1988-2025 (1988-2022)	6.3% (6.2%)	5.0% (4.9%)	6.0% (5.9%)

Comparator: Table 7.3 (p. 159) of the 2022 RORI Explanatory Statement.

Source: Handley, *An estimate of the historical equity risk premium for the period 1883 to 2011*, April 2012, p. 6; AER update for 2012–2025 market data.

Note: Calculated using an assumed imputation utilisation value (or theta value) of 0.641706711.

10.2.3.2 Dividend growth model

We have updated the DGM estimates using the latest available data to February 2026, with results presented for different averaging periods. These estimates are shown alongside those used in the 2022 RORI review.

Across all specifications, the updated DGM estimates are much lower than those observed in the 2022 RORI review. The two-stage model produces estimates in the range of around 3.6% to 4.0%, while the three-stage model produces estimates in the range of around 4.0% to 4.3%, depending on the averaging period applied.

The reduction in the updated DGM estimates reflects changes in market conditions, including lower dividend yields and updated growth expectations. Consistent with past RORI reviews, we consider the DGM provides some trend information, noting its sensitivity to inputs and assumptions.²⁵² We also note previously the ENA supported stronger use of DGM estimates, albeit in a specific calibrated formulation we did not consider appropriate.²⁵³

Table 10.2 Dividend growth model estimates (two-stage and three-stage models, updated to February 2026; 2022 RORI review estimates in brackets)

Averaging period	Two-stage model	Three stage model
2-month average ending February 2026 (December 2022)	3.6 (5.5%)	4.0 (5.0%)
6-month average ending February 2026 (December 2022)	3.7 (5.7%)	4.0 (5.2%)
12-month average ending February 2026 (December 2022)	4.0 (5.8%)	4.3 (5.3%)

Comparator: Table 7.4 (p. 160) of the 2022 RORI Explanatory Statement.

Source: Bloomberg; AER analysis; Consensus Economics.

Note: The growth rate of 3.84% applied in both the two-stage and three-stage DGM for 2026 was calculated from long term forecast from real GDP growth and expected inflation sourced from Consensus Economics, less a 1% deduction for net new share issuance from new companies and new share issues from existing companies.

²⁵² AER, *2022 Rate of Return Instrument – Explanatory Statement*, p. 145.

²⁵³ AER, *2022 Rate of Return Instrument – Explanatory Statement*, p. 148.

10.2.3.3 MRP survey results

Survey evidence provides a useful cross-check on market expectations of the MRP. The available evidence is limited, with the survey by Fernandez being the only source that provides consistent and comparable estimates across both the 2022 and 2026 RORI review periods. These results indicate a mean MRP estimate of 6.3% and a median estimate of 6.0% for both 2022 and 2025 survey years. This suggests that survey-based expectations of the MRP have remained broadly stable over this period.

Overall, the survey evidence is broadly consistent with the range indicated by the HER.

Table 10.3 MRP survey results (2012 to 2025)

Survey	Number of responses	Mean (%)	Median (%)	Mode (%)
Fernandez et al (2012)	73	5.9	6.0	n/a
Fernandez et al (2013)	17	6.8	5.8	n/a
Fernandez et al (2014)	93	5.9	6.0	n/a
Fernandez et al (2015)	40	6.0	5.1	n/a
Fernandez et al (2016)	87	6.0	6.0	n/a
Fernandez et al (2017)	26	7.3	7.6	n/a
Fernandez et al (2018)	74	6.6	7.1	n/a
Fernandez et al (2019)	54	6.5	6.1	n/a
Fernandez et al (2020)	37	7.9	6.2	n/a
Fernandez et al (2021)	31	6.4	6.3	n/a
Fernandez et al (2022)	34	6.3	6.0	n/a
Fernandez et al (2023)	39	6.2	6.0	n/a
Fernandez et al (2024)	34	5.5	5.4	n/a
Fernandez et al (2025)	27	6.3	6.0	n/a
KPMG (2013)	19	n/a	6.0	6.0
KPMG (2015)	~27	n/a	6.0	6.0
KPMG (2017)	45	n/a	6.0	6.0
KPMG (2018)	56	5.5	6.0	6.0
KPMG (2019)	59	5.9	6.0	6.0
Asher and Hickling (2013)	46	4.8	5.0	6.0

Survey	Number of responses	Mean (%)	Median (%)	Mode (%)
Asher and Hickling (2014)	27	4.4	4.6	6.0
Asher and Carruther (2015)	29	4.9	n/a	n/a
Carruther (2016)	24	5.3	n/a	n/a

Comparator: Table 7.5 (p. 162) of the 2022 RORI Explanatory Statement.

Source: Fernandez et al, *Survey: Market Risk Premium and Risk-Free Rate used for 88 countries in 2023*, June 2023; Fernandez et al, *Survey: Market Risk Premium and Risk-Free Rate used for 96 countries in 2024*, March 2024; Fernandez et al, *Survey: Market Risk Premium and Risk-Free Rate used for 54 countries in 2025*, May 2025. All other data is the same as published with the 2022 RORI Explanatory Statement.

10.2.3.4 Conditioning variables

Conditioning variables are market data and indicators that provide information on the potential risk in the market.²⁵⁴ These include dividend yields, volatility index and credit spreads, as described below.

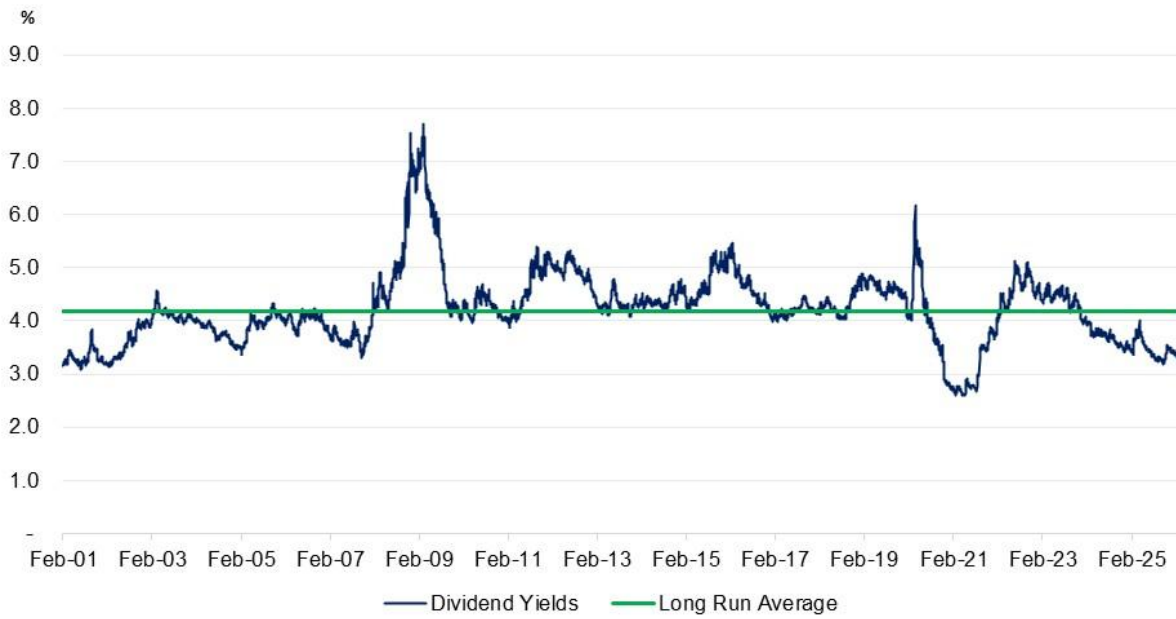
Dividend Yields

Dividend yields provide an indicator of expected equity returns over time. Figure 10.1 shows dividend yields for the ASX200 from February 2001-2026.

Recent observations indicate that dividend yields are below their long-run average. While dividend yields have exhibited periods of volatility, particularly during market stress, current levels are lower than those observed over much of the sample period. This suggests a lower expected return on equity relative to historical norms.

²⁵⁴ Our use of conditioning variables is described in AER, *2022 Rate of Return Instrument, Explanatory Statement*, February 2023, p. 155.

Figure 10.1 Dividend yields from ASX200 (February 2001-2026)



Comparator: Figure 7.5 (p. 164) of the 2022 RORI Explanatory Statement.

Source: AER analysis; sourced via Bloomberg code AS51.

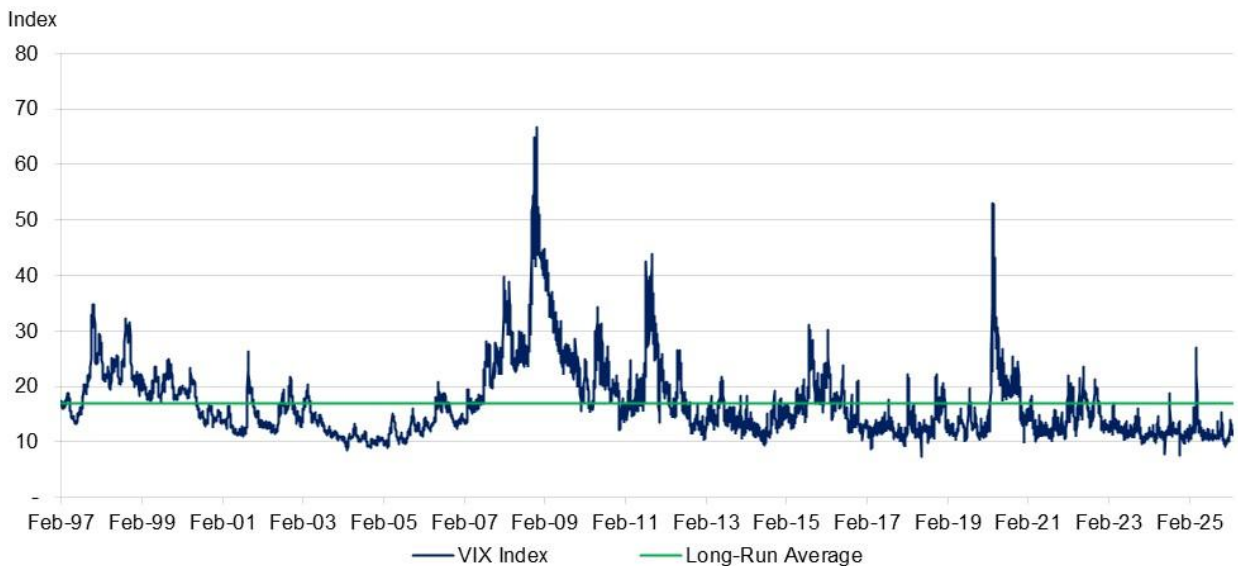
Note: Long run average taken from the start of the data series in 2000.

Volatility index

Implied volatility provides a measure of market uncertainty and risk. Figure 10.2 shows the implied volatility index for the ASX200 over the period February 1997-2026.

Recent observations indicate that implied volatility is below its long-run average. While volatility has spiked during periods of market disruption, current levels are relatively subdued compared to historical peaks. This suggests that current market conditions are associated with lower perceived equity risk.

Figure 10.2 Implied volatility of ASX200 (February 1997-2026)



Comparator: Figure 7.4 (p. 163) of the 2022 RORI Explanatory Statement.

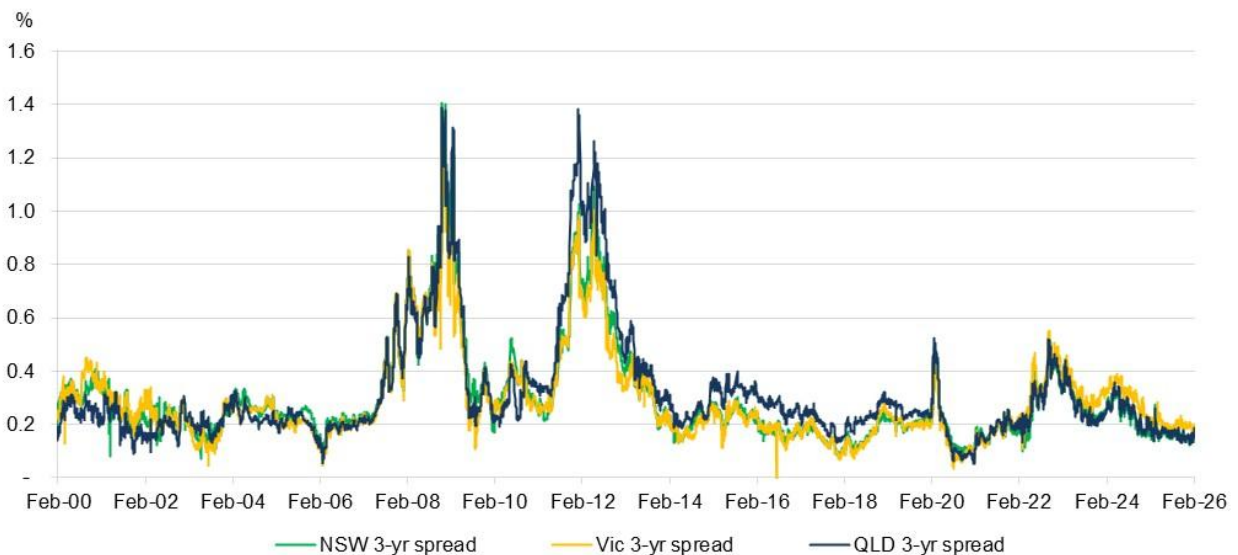
Source: AER analysis; ASX200 VIX volatility index, sourced via Bloomberg code AS51VIX from 2 January 2008 and code CITJAVIX prior to 2 January 2008. Long run average taken from the start of the data series in 1997.

Credit Spreads

Credit spreads provide an indication of the compensation required by investors for bearing credit risk. Figure 10.3 and Figure 10.4 show credit spreads for Australian State Government debt and non-financial corporate bonds, respectively.

Recent observations indicate that credit spreads have narrowed relative to historical levels. While spreads increased during periods of market stress, they have since declined and remain below long-run averages. This suggests that the compensation required for bearing credit risk is lower than in the past.

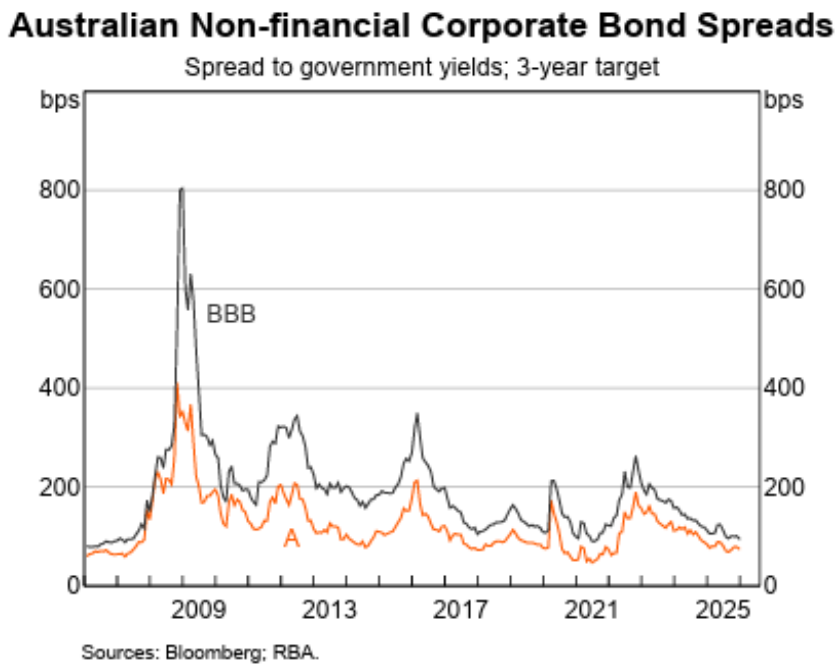
Figure 10.3 Credit spreads from Australian State Government debt (February 2000-2026)



Comparator: Figure 7.6 (p. 164) of the 2022 RORI Explanatory Statement.

Source: AER analysis; Spreads between the Australian Sovereign 3 Year Index and the State Government bonds with a term to maturity of 3 years, sourced via Bloomberg interest rate statistics.

Figure 10.4 Credit spread of corporate debt



Source: RBA, *Chart Pack*, downloaded February 2026.

Note: Data updated to 4 February 2026.

10.2.4 AER consideration

As summarised earlier, submissions from ENA and Endeavour Energy support maintaining the existing approach to estimating the MRP, while the CRG identified the potential for upward bias in the MRP point estimate we selected in the 2022 RORI review.

We consider that our approach to estimating the MRP requires having regard to a range of evidence, rather than a mechanical update of any single source of evidence. Consistent with the 2018 and 2022 RORIs, we assess a range of evidence, including the HER, forward-looking estimates, survey data and market indicators, and apply judgement to determine an appropriate point estimate.

Having regard to all available evidence, our draft decision is to reduce the MRP to 6.1% from the value of 6.2% used in the 2022 RORI.

In the 2022 RORI review, we moved the MRP up from 6.1% used in the 2018 RORI to 6.2%, having regard to small upward movements in several HER estimates and upward movement in the conditional MRP at that time. These upward movements supported a slightly higher point estimate of 6.2% within the arithmetic HER range for different sub periods (of 6.1% to 6.6%).

Considering the HER data to 2025, the arithmetic HER range is unchanged relative to 2022, although two estimates within this range have increased by 0.1% including the HER estimate from 1988 to 2025 that has increased from 6.2% to 6.3%. However, current conditional MRP evidence has materially decreased relative to the evidence we considered in 2022. DGM

estimates have declined significantly, credit spreads have narrowed and other market indicators point downward.

Having regard to the same considerations as the 2022 RORI, and to the broader downward movement across a range of indicators, we consider this evidence supports a move back to the lower bound of the HER arithmetic range at 6.1%. Setting the MRP at 6.1% represents a parameter update within the existing methodological framework, having regard to the HER, DGM and other supporting evidence. We have estimated that an MRP of 6.1% for the 2026 RORI will likely deliver an aggregate reduction in regulated revenues of around \$190 million via regulatory revenue determinations to be set under the 2026 RORI, all else equal.²⁵⁵

Endeavour Energy and ENA also sought clarity on the data period to be used to inform the MRP, including whether calendar year 2026 data would be incorporated. Due to practical limitations, we will not be including 2026 calendar year data as the 2026 RORI will be made before the end of the 2026 calendar year.

We welcome further views on our draft decision to set the MRP at 6.1% for the 2026 RORI.

²⁵⁵ The estimated impact for each year is calculated by multiplying the forecast closing equity proportion of the RAB in the prior year by the reduction in the equity risk premium attributable to the market risk premium of 0.06 percentage points. The total impact is the sum of the impacts in each year. Where forecasts are not available, we have assumed nominal RAB growth of 4% per annum.

11 Return on debt approach

11.1 Draft decision

This section presents our draft decision on our overall approach to the return on debt for the 2026 RORI, including the implementation of our approach.

As part of this draft decision, we have considered a number of aspects of the return on debt approach – namely the use of the simple trailing average methodology and the data sources used to estimate the return on debt – which are discussed in Chapters 7 and 8, respectively.

Our draft decision is to retain the simple trailing average approach to estimating the return on debt, consistent with the 2022 RORI. We have also decided to reintroduce the Reserve Bank of Australia’s yield curve data alongside other third-party providers.

For all other parameters governing our return on debt approach, there is no change in approach from the 2022 RORI. That is, we have retained a benchmark debt term²⁵⁶ of 10 years, a benchmark credit rating of BBB+, the existing averaging period framework, and data provider contingency arrangements.

11.2 AER analysis and consideration

11.2.1 Benchmark debt term

Our draft decision is to maintain a benchmark debt term of 10 years for the 2026 RORI, consistent with the approach adopted in the 2022 RORI.

To estimate the allowed return on debt for a network service provider (NSP), we specify a benchmark debt term for the benchmark debt portfolio. The benchmark debt term is used to derive yields for estimating the return on debt, and it also establishes the period over which the trailing average is calculated.²⁵⁷

To assess whether the current benchmark debt term remains appropriate, we examined industry debt data. In 2019, we developed the weighted average term to maturity at issuance (WATMI), with assistance from Chairmont Consulting.²⁵⁸ This approach uses actual debt issuance data obtained from regulated NSPs to estimate the average term of debt issued by those businesses. We have continued to use this approach, updated with more recent data. WATMI estimates suggest that the average term of debt is currently between 8 years as the lower bound, and 10 to 11 years as the upper bound. This indicates that a 10-year debt term is consistent with the observed market practice.

No submissions raised concerns regarding the benchmark debt term.

²⁵⁶ Debt term refers to the term to maturity of debt at the time of issuance.

²⁵⁷ Under the current approach, the return on debt is calculated using a 10-year trailing average of historical benchmark debt costs. This is updated each year as the 10-year window moves forward, with the oldest annual estimate of the cost of debt dropping out and a new one being added each year.

²⁵⁸ Chairmont, *Aggregation of Debt Data for Portfolio Term to Maturity*, 28 June 2019.

Our draft decision is therefore to maintain the benchmark debt term at 10 years. This remains consistent with the long-term debt financing practices of regulated businesses. Our analysis of industry debt data also does not show clear evidence that the current 10-year benchmark debt term is no longer appropriate, or that a materially better alternative exists.

11.2.1.1 Estimation approach

Conceptual considerations

We maintain the conceptual framework set out in the 2018 and 2022 RORIs and the 2013 Rate of Return Guidelines, which concluded that the choice of term at issuance reflects a trade-off between refinancing risk and overall portfolio costs.²⁵⁹ Within the constraints of corporate debt market, a regulated business would be expected to issue longer-term bonds to minimise refinancing risk. However, this is balanced against higher costs arising from the term premium associated with longer-term issuance.

Refinancing risk is the risk that a firm may not be able to efficiently finance its debt at a given point in time. This may occur because suitable debt instruments are unavailable or cannot be refinanced at a comparable cost. Refinancing risk is often driven by systematic factors, such as macroeconomic conditions or changes in debt market liquidity. However, it may also arise from company-specific factors.

The need to manage refinancing risk must be balanced against the overall cost of the benchmark business's debt portfolio. For example, a longer average term of debt reduces the frequency of refinancing. However, it also increases the total cost of the portfolio due to the upward-sloping term structure and the term premium associated with longer-term debt. Efficient debt financing practices reflect this trade-off and may vary over time.

Below we examine evidence from actual debt raisings by privately-owned NSPs between 2014 and 2025.

Using the EICSI and WATMI for estimating the benchmark term

To support the assessment of benchmark debt term, we collected debt issuance data from privately-owned NSPs that we regulate. We use two complementary measures: the Energy Infrastructure Credit Spread Index (EICSI) and the WATMI. Together, these provide evidence on average debt terms based on this issuance data.

We developed the EICSI in 2018 with assistance from Chairmont Consulting.²⁶⁰ It reports a rolling 12-month historical average of credit spreads across all new debt instruments issued by privately-owned NSPs. In addition, it provides an indication of the average term and credit rating of debt instruments issued by NSPs.

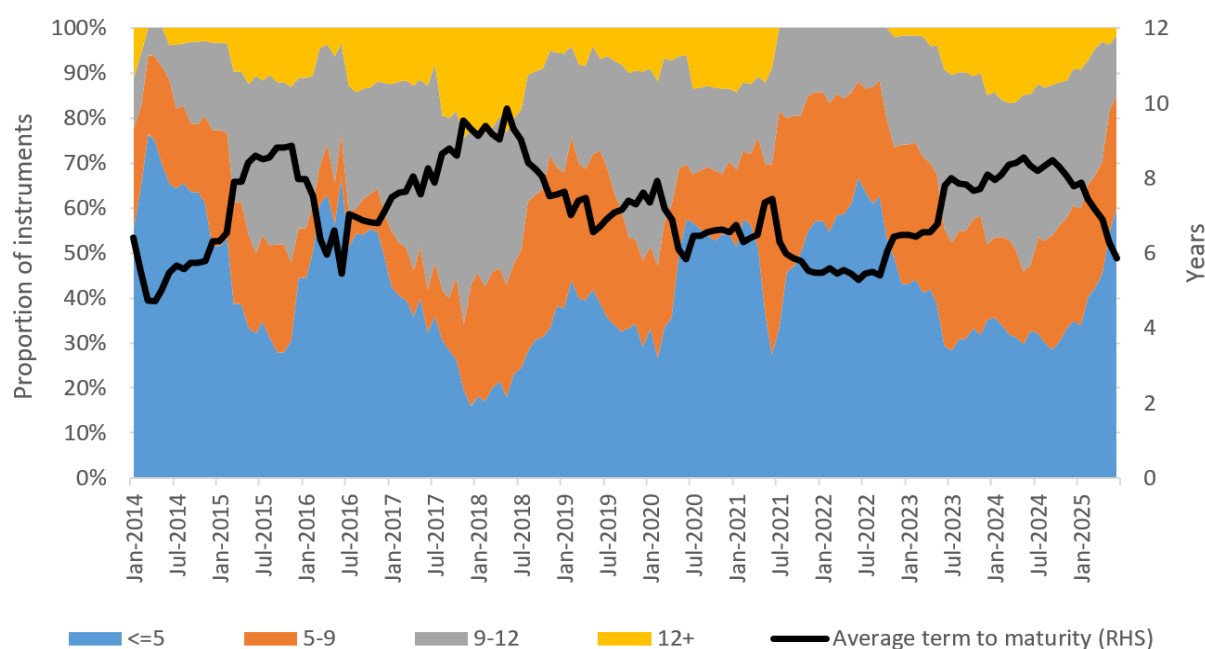
²⁵⁹ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, p. 197; AER, *Draft rate of return guideline - explanatory statement*, 10 July 2018, p. 352; AER, *Final rate of return guideline—Explanatory statement*, December 2013, p. 104.

²⁶⁰ Chairmont, *Aggregation of Return on Debt Data report*, 28 April 2018.

The detailed methodology for constructing the EICSI – including the criteria for inclusion of instruments, data collection processes, and calculations of the index – is set out in the Explanatory Statement that accompanied the 2022 RORI.²⁶¹

As shown in Figure 11.1, the simple average term of all instruments in the EICSI varies over time. The average term to maturity between 2014 and 2025 is 7.2 years. In June 2016, the average term was under 6 years, increasing to almost 10 years in May 2018. Between July 2023 and January 2025, the average term was around 8 years. More recently, the average term declined to around 6 years, reflecting an increase in shorter-term debt issuance. A similar pattern was observed in the 2022 RORI review, where we identified a decline in the average term in 2021–2022. That analysis found the decline was largely driven by increased issuance of short-term bank debt, which tended to have relatively small face values.²⁶²

Figure 11.1 Proportion of debt instruments included in EICSI by broad term to maturity grouping (January 2014 to June 2025)



Source: AER analysis; Chairmont, *Aggregation of debt data for portfolio term to maturity*, 28 June 2019.

The 2019 Chairmont report proposed an alternative method for estimating the average term of debt using the WATMI.²⁶³ This measure is weighted by the face value of debt and does not apply the same exclusion criteria as the EICSI.²⁶⁴ As a result, it includes a broader range of instruments. In addition, instruments remain in the WATMI until maturity, in contrast to the EICSI where instruments are only included for 12 months. For example, a 10-year bond remains in WATMI for 10 years but only 12 months in the EICSI. Because of this, the WATMI better reflects the overall debt portfolio of an NSP at a given point in time.

²⁶¹ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2013, pp. 206–209.

²⁶² AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, p. 199.

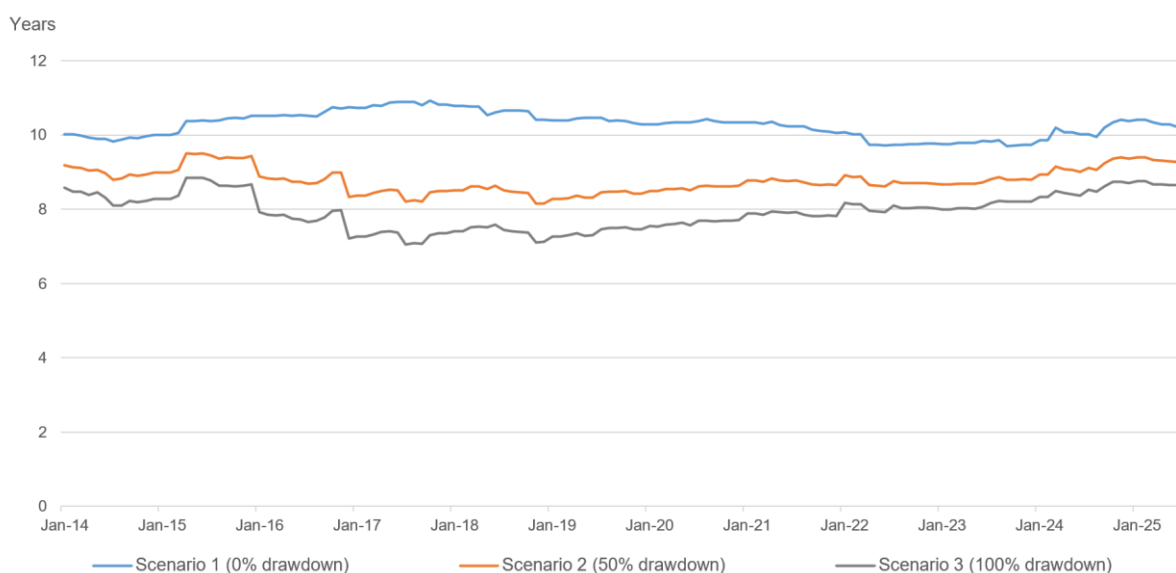
²⁶³ Chairmont, *Aggregation of Debt Data for Portfolio Term to Maturity*, 28 June 2019.

²⁶⁴ See the criteria for the inclusion of instruments in the EICSI set out in the AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, pp. 206–207.

The WATMI also includes scenarios for the drawdown of bank debt (that is, whether reported bank debt facilities are utilised). As shown in Figure 11.2, scenario 1 reflects no drawdown, scenario 2 reflects a 50% drawdown, and scenario 3 reflects 100% drawdown (that is, all bank facilities are fully utilised). When bank facilities are drawn, the weighted average term decreases because these facilities typically have shorter terms than other debt instruments (such as bonds).

Under the 0% drawdown scenario, the weighted average term at issuance remains relatively stable between 10 and 11 years. The 50% and 100% drawdown scenarios show lower average terms, with some increase observed from January 2019 onwards. The 100% drawdown scenario is currently close to 9 years. This analysis is presented in Figure 11.2 and reflects the updated data received from NSPs through to June 2025.

Figure 11.2 Weighted average term to maturity at assurance for the EICSI dataset - comparison of drawdown sensitivities (January 2014 to June 2025)



Source: AER analysis, based on method in Chairmont, *Aggregation of debt data for portfolio term to maturity*, June 2019.

Based on our analysis of debt issuance data up to June 2025, we consider that maintaining a benchmark debt term of 10 years remains appropriate. This aligns with the observed debt financing practices of regulated businesses, which continue to issue longer-term debt, and is consistent with the average term indicated by WATMI. While recent data show some increase in shorter-term debt issuance, there is no clear evidence that this represents a persistent, sector-wide shift away from the existing benchmark. Any adjustment to the benchmark term would need to be supported by evidence that, on average, regulated businesses issue shorter-term debt, and that this pattern is not driven by temporary conditions or a particular sub-sample. On this basis, this draft decision maintains the benchmark debt term at 10 years. We will continue to monitor debt issuance patterns for any future indication that a change may be warranted.

11.2.2 Use of industry data

Our draft decision is to maintain the use of the EICSI as a cross-check of our benchmark return on debt approach, consistent with the 2018 and 2022 RORIs.

The EICSI provides an estimate of NSP-issued debt costs (measured as a credit spread over the swap rate), allowing comparison with our benchmark allowance.

Extending the dataset to June 2025, the EICSI remains below the allowed return on debt, indicating possible outperformance by NSPs relative to the benchmark. We further decompose this outperformance into three components: credit rating; debt term; and a residual component. We find no evidence that credit ratings explain the outperformance, as NSPs’ actual credit ratings align with our benchmark credit rating.

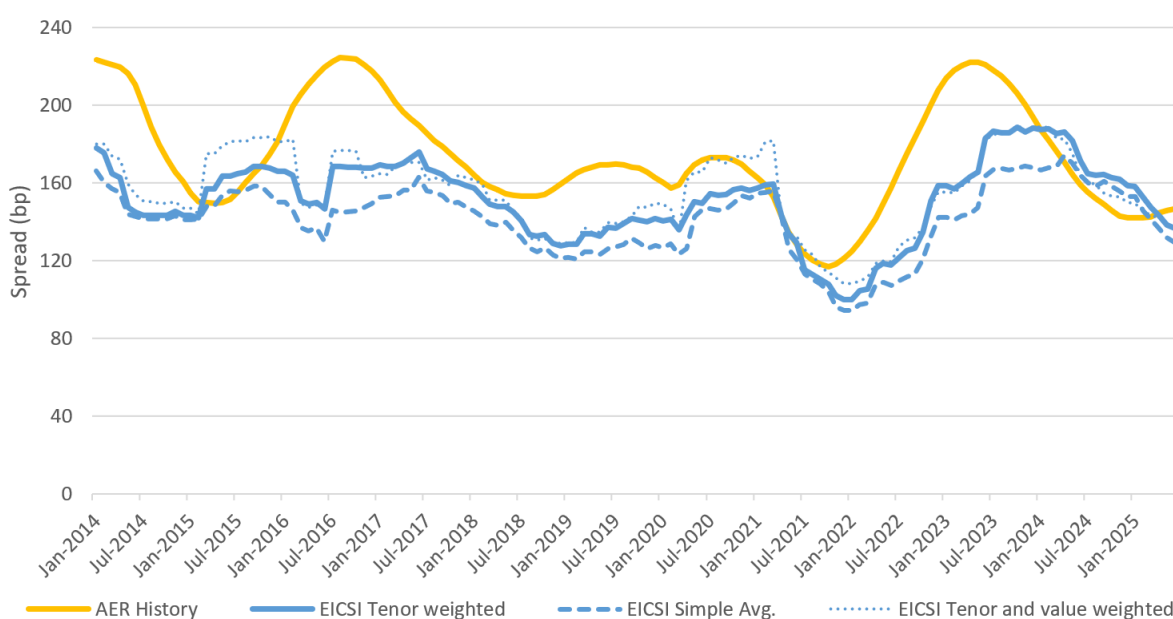
Differences in debt term appear to be a key factor. In interpreting the result, it is important to consider the full set of available evidence, including WATMI estimates and the construction and limitations of the EICSI. The EICSI is a simple average of instruments issues over a 12-month period and therefore reflects a short-term view of issuance, which may not be representative of the term of overall debt portfolio. This can give rise to differences when compared to the benchmark, which is intended to reflect the average term of the portfolio.

When considered alongside broader evidence, including WATMI estimates, the average term of NSP debt remains broadly consistent with a 10-year benchmark. Accordingly, we do not consider that there is evidence of material and persistent outperformance that would warrant an adjustment to the current benchmark return on debt approach.

11.2.2.1 Analysis of data

Figure 11.3 compares the EICSI against our allowed cost of debt. The EICSI has remained below our cost of debt for almost the entire period observed, suggesting possible outperformance. There have been only 24 months in the past 138 months in which the EICSI was above our benchmark cost of debt, with deviations of no more than 19 basis points. On average, the gap between the EICSI and our approach has been about 22 basis points.

Figure 11.3 Comparison of EICSI (spread over swap) 12-month rolling average (unweighted, tenor weighted and tenor and face value weighted) against AER A/BBB (10-year term) estimate (January 2014 to June 2025)



Source: AER analysis; Chairmont, *Aggregation of debt data for portfolio term to maturity*, 28 June 2019.

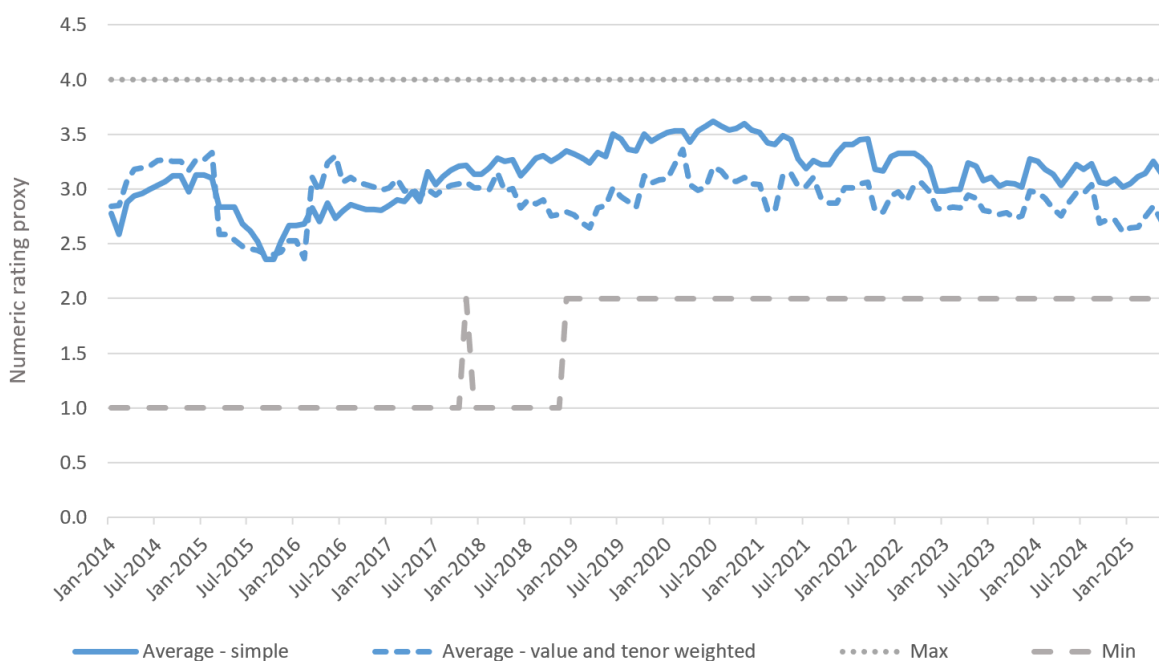
Following the methodology applied in the 2022 RORI, we decompose the observed EICSI outperformance into the 3 factors of credit rating, debt term, and a residual component.²⁶⁵

Impact of credit rating

To analyse the credit ratings, we assigned a numerical scale to credit ratings to facilitate comparison across debt instruments.²⁶⁶ Under this numerical rating, the range of BBB+ would be between 2.5 and 3.5.

As shown in Figure 11.4, the current average rating is between 3 and 3.5, and it has been relatively stable around the BBB+ range since around 2018. Thus, there is no clear relationship between credit rating and the observed outperformance.²⁶⁷

Figure 11.4 Average and face value weighted credit rating (proxy) of instruments in EICSI (January 2014 to June 2025)



Source: AER analysis; Chairmont, *Aggregation of debt data for portfolio term to maturity*, 28 June 2019.

Impact of term to maturity of debt

To assess whether debt term differences explain this outperformance, we undertake a matched-term analysis. This approach adjusts our benchmark cost of debt to reflect the observed term of instruments included in the EICSI, rather than the fixed 10-year benchmark

²⁶⁵ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, p. 210.

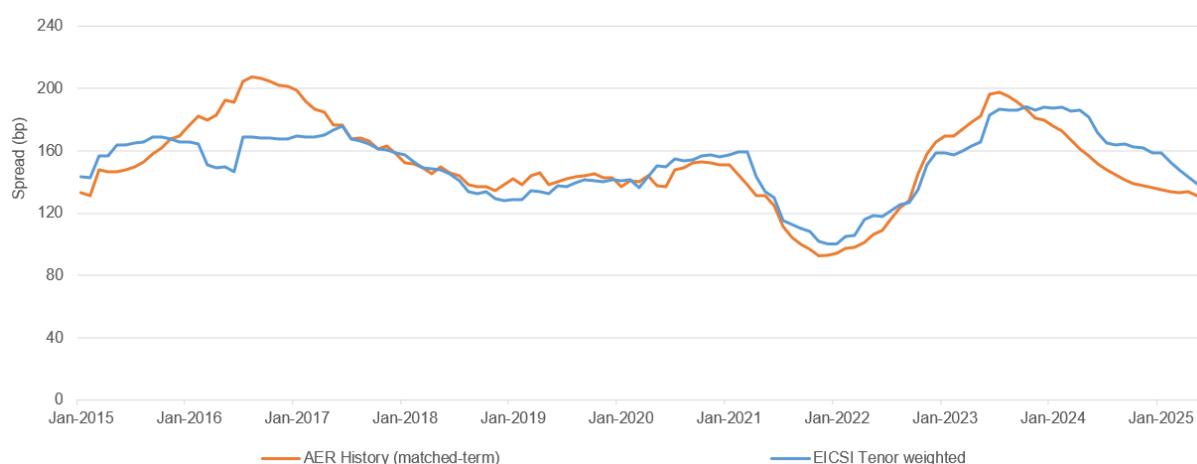
²⁶⁶ BBB was assigned a value of 1, with each one-notch increase in credit rating assigned a value one unit higher (e.g. BBB=2, BBB+=3, A-=4, A=5). See detailed assigning method in the AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, p. 211.

²⁶⁷ It should also be noted that, while rating proxies have been used to allow for this quantitative analysis, credit rating bands are ordinal (non-metric). Although they are ordered categories, the distances between each category are not known. The proxies assume distances are equal between each band, which may not be true in practice.

term. Figure 11.5 compares EICSI (tenor weighted²⁶⁸) against an AER historical series using a matched-term, where the benchmark cost of debt is alighted to the EICSI term.²⁶⁹ Under this matched-term analysis, the average outperformance relative to the benchmark reduces significantly from 22 basis points to 0.2 basis points.

This result indicates that differences in debt term between NSP issuance and our benchmark are a major driver of the observed outperformance. However, we do not consider that this finding alone implies that the benchmark term should be revised. The reasons have been discussed in section 11.2.2.

Figure 11.5 Comparison of EICSI 12-month rolling average (tenor weighted) against AER A/BBB (matched-term) estimate (January 2015 to June 2025)



Source: AER analysis; Chairmont, *Aggregation of debt data for portfolio term to maturity*, 28 June 2019.

Other impacts

We have also considered whether other factors may explain the residual outperformance. Consistent with our analysis and findings in the 2022 ROR review, we find that the choice of third-party data series (i.e. Bloomberg, Refinitiv/LSEG and RBA) is unlikely to be a key driver of the observed outperformance. While some limited residual outperformance may be observed during periods of elevated credit spreads, these observations are relatively infrequent and do not materially affect the overall result.²⁷⁰

Conclusion

Overall, the evidence indicates that the primary driver of the observed outperformance is the difference in debt term between NSP issuance and our benchmark. After adjusting for term, the remaining difference is within normal estimation error. We also consider that the benchmark term of 10 years remains appropriate, as suggested by the WATMI estimates. In addition, the EICSI index has inherent limitations, as it reflects only newly issued debt and is

²⁶⁸ Tenor weighted EICSI is where each instrument is weighted in proportion to its tenor.

²⁶⁹ This involves interpolating values for the AER benchmark estimates from the published debt curves for each 0.1-year increments between 5 and 10 years and matching this to the average term in EICSI for each month.

²⁷⁰ AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2013, pp. 214–221.

based on a relatively small sample that may not fully represent the broader NSP debt portfolio.

Finally, we note that any observed outperformance may be temporary, reflecting recent short-term issuance driven by factors such as economic uncertainty, acquisitions, or other temporary financing strategies. Overall, these considerations support that the current benchmark methodology remains appropriate.

11.2.3 Benchmark credit rating

Our draft decision is to maintain a benchmark credit rating of BBB+ for the 2026 RORI. We consider this is consistent with the available empirical evidence. This draft decision represents no change from the benchmark set out in the 2022 RORI.

The benchmark credit rating we adopt is used to determine the allowed cost of debt for NSPs. The credit ratings of NSPs have remained broadly stable since the 2022 RORI. As shown in Table 11.1, the industry median has consistently been BBB+ across the period, with the exception of 2021 when it temporarily improved to A-, before returning to BBB+ again in subsequent years. We have continued to update the credit rating data in our annual update reports, which tracks these ratings on a yearly basis.²⁷¹ This ongoing monitoring confirms that the empirical evidence remains consistent with the benchmark credit rating of BBB+, and provides no basis to depart from the position established in the 2022 RORI review.²⁷²

Table 11.1 Credit Rating

Issuer	2018	2019	2020	2021	2022	2023	2024	2025	2026
APA Infrastructure Ltd	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB
ATCO Gas Australia LP	BBB+	BBB+	BBB+	BBB+	BBB+	BBB+	BBB+	BBB+	A-
DBNGP Trust	BBB	BBB	BBB	NR	NR	NR	NR	NR	NR
DBNGP Finance Co P/L	BBB	BBB	BBB	A-	A-	A-	A-	A-	A-
DUET Group	NR	NR	NR	NR	NR	NR	NR	NR	NR
ElectraNet P/L	BBB+	BBB+	BBB	NR	BBB	BBB	BBB	BBB	BBB
Energy Partnership (Gas) P/L	BBB+	BBB+	BBB+	A-	A-	A-	A-	A-	A-
Australian Gas Networks Ltd	BBB+	A-	A-	A-	A-	A-	A-	A-	A-
ETSA Utilities	NR	A-	NR	NR	NR	NR	NR	NR	NR

²⁷¹ AER, *Rate of Return annual update*, November 2025, p. 24.

²⁷² AER, *Rate of return Instrument - Explanatory Statement*, 24 February 2023, pp. 222-225.

Draft 2026 Rate of Return Instrument – Explanatory Statement

ETSA Utilities Finance P/L	A-	A-	A-	A-	A-	A-	A-	A-	A-
Powercor Australia LLC	NR	NR	NR	NR	NR	NR	NR	NR	NR
AusNet Services (Distribution) Pty Ltd	NR	NR	NR	NR	NR	NR	NR	NR	NR
AusNet Services Ltd	A-	A-	A-	A-	BBB+	BBB+	BBB+	BBB+	BBB+
AusNet Service Holdings P/L	A-	A-	A-	A-	BBB+	BBB+	BBB+	BBB+	BBB+
AusNet Transmission Group P/L	A-	A-	A-	A-	BBB+	BBB+	BBB+	BBB+	BBB+
SGSP (Australia) Assets Pty Ltd	A-	A-	A-	A-	A-	A-	A-	A-	A-
The CitiPower Trust / CitiPower I	NR	NR	NR	NR	NR	NR	NR	NR	NR
United Energy Distribution P/L	A-	A-	A-	A-	A-	A-	A-	A-	A-
Victoria Power Networks Pt/L	BBB+	BBB+	A-	BBB+	BBB+	BBB+	BBB+	BBB+	BBB+
Victoria Power Networks (Finance) P/L	A-	BBB+	A-	A-	A-	A-	A-	A-	A-
NSW Electricity Networks Finance P/ L	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB
Ausgrid Finance P/ L	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB
Network Finance Company P/L	BBB+	BBB+	BBB+	BBB+	BBB+	BBB+	BBB+	BBB+	BBB+
Industry Median (Yearly)	BBB+	BBB+	BBB+	A-	BBB+	BBB+	BBB+	BBB+	BBB+

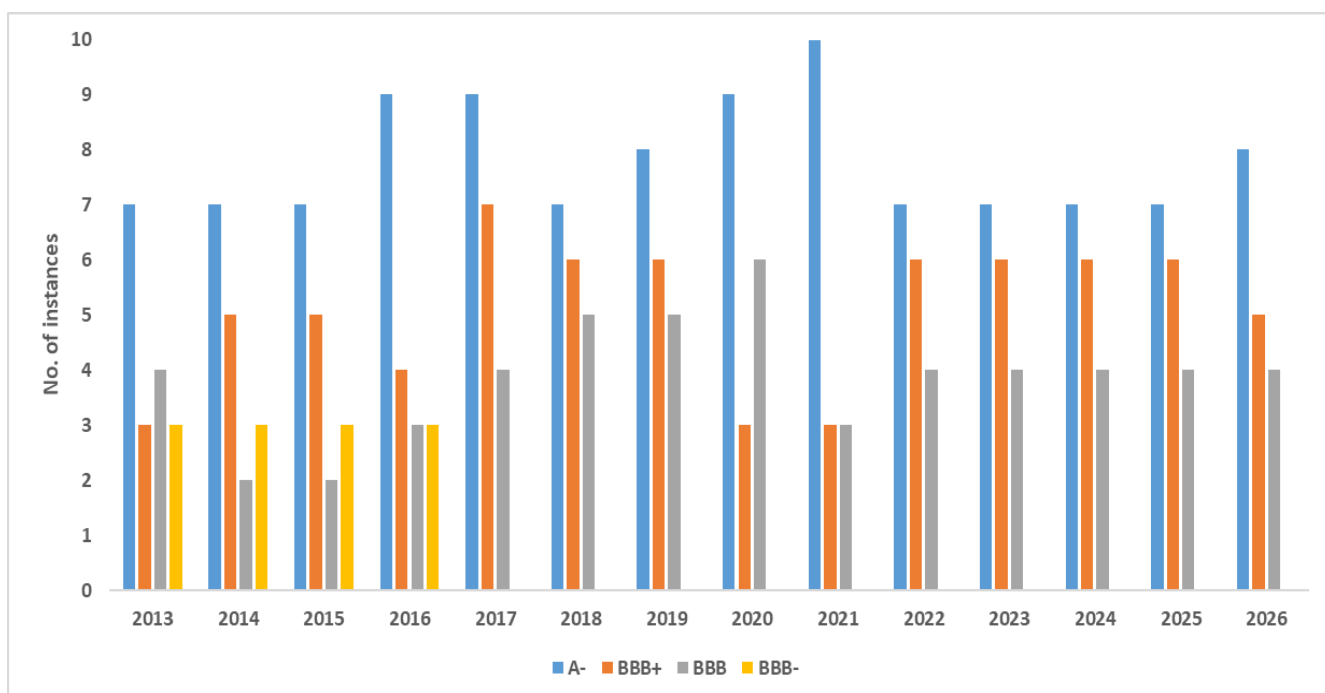
Source: Bloomberg; Refinitiv/LSEG (S&P Global, Moodys); AER analysis.

Note: The data is as 31 December for each year except 2026. ATCO Gas Australia, DBNGP Trust and DBNGP Finance are not regulated by the AER. For some of the NSPs, there is now more than one related entity listed in the table, which may affect the calculation of the median. However, after considering this factor, we still consider BBB+ to be the appropriate benchmark.

We determine the benchmark credit rating by reference to the observed credit ratings of a sample of regulated NSPs. Firms without an active rating from Standard & Poor's or Moody's are excluded from the sample for the relevant year.

To identify the median rating, we assign each rating category a numeric rank, from 1 (BBB-) to 6 (A+), and count the number of firms at each level. We then cumulate firm counts from the highest rating downward until the cumulative total reaches the median position, calculated as the integer part of $(n + 1) / 2$, where n is the total number of rated firms. We apply the same approach from the lowest rating upward as a cross-check. Where both approaches produce the same result, that rating is the benchmark credit rating. Figure 11.6 displays the instances in each credit rating per year.

Figure 11.6 Instances of each Credit Rating per year (2018 – 2026)



Source: AER Analysis.

We also analysed the credit ratings of instruments included in our EICSI to assess whether the mix of ratings has changed over time. Using the numerical scale described in section 11.2.2.1, the average credit rating of issued instruments has remained relatively stable within the BBB+ range over the past five years.

In our view, the evidence supports maintaining a benchmark credit rating of BBB+.

11.2.3.1 Implementation of the benchmark credit rating

Our draft decision for the 2026 RORI is to use a weighting of two-thirds broad-BBB curves and one-third broad-A curves to reflect a BBB+ benchmark credit rating. This is consistent with the approach adopted in the 2022 RORI.²⁷³

²⁷³ AER, *Rate of Return instrument - Explanatory statement*, February 2023, p. 222.

A combination of broad BBB and broad A curves is required to provide the best fit to a BBB+ benchmark credit rating because:

- Reliance on a broad BBB curve only would overestimate the level of credit risk of a BBB+ benchmark credit rating due to the inclusion of lower rated bonds in the sample (BBB and BBB-).
- Reliance on a broad-A curve only would underestimate the level of credit risk for a BBB+ benchmark credit rating as all the constituents (A-, A, A+) are higher rated than the BBB+.

A two-thirds broad-BBB and one-third broad A blend was selected for the 2018 RORI after analysis of actual debt raised by NSPs in the EICSI showed that it provided the best estimate of the BBB+ benchmark.²⁷⁴

We therefore conclude that a two-thirds broad-BBB and one-third broad A estimate is a good match for our benchmark credit rating of BBB+. This is supported conceptually and by our analysis of debt issuances since 2013.

Stakeholder submissions on our discussion paper did not raise concerns with the benchmark credit rating we have adopted to date or our implementation approach.

Given that stakeholder submissions did not raise concerns with our benchmark credit rating approach, and in the absence of new evidence or a compelling case for change, our draft decision adopts a weighting of two-thirds broad BBB curves and one-third broad A curves to reflect a BBB+ benchmark credit rating.

11.2.4 Return on debt averaging period

Our draft decision for the 2026 RORI is to retain the averaging period framework set out in the 2022 RORI.²⁷⁵ This includes:

- an averaging period of between 10 business days and 12 months
- a nomination window commencing no earlier than 17 months prior to the start of a regulatory year
- an averaging period finishing no later than 5 months prior to the start of a regulatory year
- a requirement that averaging periods do not overlap across regulatory years.

Regulated businesses may nominate averaging periods within this framework in accordance with the RORI.

The averaging period is used to estimate the return on debt by observing market yields over a defined period prior to the start of each regulatory year. It is intended to reduce the impact

²⁷⁴ AER, *Rate of return instrument - Explanatory statement*, December 2018, p. 280.

²⁷⁵ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp. 228-231.

of short-term volatility in debt markets while providing a representative estimate of efficient financing costs.

We consider that the current averaging period framework remains mostly appropriate for the purpose of implementing the return on debt approach. The design of the averaging period framework was considered in the 2022 RORI. Submissions to the 2026 RORI review did not raise concerns with the existing framework or propose any changes, indicating that stakeholders generally consider the existing approach to be operating as intended.

As noted in Chapter 9, a redundant carve-out clause from the 2022 RORI that is no longer relevant for the 2026 RORI has been removed.

Given the extensive analysis of the averaging period framework established in the 2022 RORI review, and in the absence of new evidence or a compelling case for change or stakeholder concerns with our existing approach, our draft decision is to retain the averaging period framework set out in the 2022 RORI, with the exception of the redundant carve-out clause.

11.2.5 Data providers contingencies

Our draft decision for the 2026 RORI is to adopt an annually updating return on debt approach.

As a result, our decision on how to apply third-party data sources must be fully specified upfront in each RORI and must be capable of application over the regulatory control period without the use of subsequent judgement or discretion.

The principles underpinning our approach to third-party data source contingencies are set out in the 2022 RORI.²⁷⁶ These principles were designed to ensure that the return on debt methodology remains transparent, robust and capable of mechanical application over time.

In the 2022 RORI, we specified a series of contingencies to address potential changes in third-party data sources, including revisions to methodologies and changes in data availability.²⁷⁷ These contingencies were designed to ensure the continued application of the return on debt methodology without the need for ongoing judgement or discretion.

Since the 2022 RORI, the RBA has ceased publication of swap-spread data previously used in the construction of its yield curve. To address this, our draft decision for the 2026 RORI is to retain the existing contingency framework but amend the approach for calculating the extrapolation of the RBA yield curve. This ensures the methodology remains operational, transparent, and consistent with the principles set out in the 2022 RORI.

²⁷⁶ AER, *Explanatory Statement - Rate of Return Instrument*, 24 February 2023, p. 231.

²⁷⁷ AER, *2022 Rate of Return Instrument (Version 1.2)*, 2 August 2023, cl. 26.

12 Gearing ratio

A regulated network service provider's (NSP) financing is made up of debt and equity capital. The gearing ratio, also known as leverage ratio, is the proportion of an NSP's regulatory asset base (RAB) financed by debt. It is used to weight the expected required returns on debt and equity to derive the weighted average cost of capital (WACC).

The level of gearing is interrelated with the equity beta and credit rating because of leverage risk on these parameters. There are also interrelationships between gearing and tax expense.

The gearing ratio has not been identified as a key focus area in this review. However, we have reviewed the case for change with respect to the selected parameter value because gearing relates to the equity beta parameter, which we reviewed in Chapter 6.

12.1 Draft decision

Our draft decision is to maintain a gearing ratio of 60% for the 2026 RORI based on a benchmarking approach and an examination of relevant empirical evidence. This represents no change in approach from the 2022 RORI.

We maintain our estimation approach from the 2022 RORI, including:

- giving primary weight to longer historical averages
- using listed NSPs for the comparator set of firms
- placing primary weight on gearing estimates based on market values (n.b. the availability of market value of debt is limited, so the book value of debt is used as a proxy)
- removing hybrid securities from both debt and equity values.

Our reasons for maintaining a gearing ratio of 60% include:

- we give primary weight to the long-term historical average of market value estimates of gearing, which is currently around 57% and not materially different from the benchmark gearing ratio of 60% that we adopted in the 2022 RORI review
- we reviewed our data on NSPs' actual debt-to-RAB ratio, which has been close to 60%
- consistency with the trailing average return on debt allowance given the absence of new evidence or a compelling case for change
- stakeholders broadly supported maintaining a current gearing ratio of 60%.

12.2 AER analysis and consideration

12.2.1 Estimation approach

Sample period

Our approach is to give more weight to the longer period averages. This is consistent with our approach to equity beta, which is also based on data from listed Australian comparator firms.

In the 2022 RORI review, we considered both shorter (5 years) and longer (10 years or more) historical averages of NSPs' gearing ratios. However, 4 of the 5 firms in our comparator set are now delisted, with only APA Group remaining. To avoid over-reliance on APA Group, we consider it appropriate to give more consideration to longer period estimates, which include all 5 firms in our comparator set.

The Consumer Reference Group (CRG) submitted that gearing levels have not been stable over time by pointing out that the observed gearing of: Envestra declined from 77% in 2008 to 47% in 2014; APA Group declined from 73% in 2008 to 45% in 2018; and DUET Group declined from 80% in 2010 to 51% in 2016.²⁷⁸ We note these periods are selectively chosen and do not necessarily reflect a longer-term trend. APA Group's gearing, for example, increased from 51% in 2006 to 73% in 2008 and again from 45% in 2018 to 57% in 2025. The CRG did not propose an alternative estimation period that we should use, nor did any other stakeholder.

By giving the most weight to long-term estimates, we minimise the impact of short-term factors that are cyclical or one-off, and which can temporarily obscure the true underlying gearing level of a benchmark efficient entity.

Comparator set

Our comparator set for gearing estimation includes 5 listed Australian NSPs with data commencing from 2006. We observe that 4 of these 5 firms are now delisted, with only APA Group remaining.

As per the challenges considered earlier for equity beta estimation, we have not found any viable alternatives to these domestic firms. The observed gearing levels of international energy firms, for example, have been significantly different to that of our domestic comparator set. Therefore, we do not consider international firms to be good proxies to the firms that we regulate. We consider it prudent to continue to rely on our domestic comparator set.

Stakeholders did not raise the issue of comparator set for gearing in their submissions.

Market and book value of equity

A gearing ratio requires estimates of the value of a business's debt and equity. These values can be obtained from book values and market values. Book values are derived from financial

²⁷⁸ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 13.

statements, whereas market values are obtained from market prices of debt and equity securities.

Our view is to continue to rely primarily on market value estimates because they better reflect current market information on the efficient financing of the benchmark entity. The use of market values is consistent with our approach to other rate of return parameters that are typically informed by market data. The market value of debt is not readily available because corporate debt tends not to be actively traded, therefore we use book value of debt as a proxy for market value of debt.

Stakeholders did not raise issues around market or book values in their submissions.

Hybrid securities

Hybrid securities are securities that have characteristics of both debt and equity. Our draft decision is to continue our current approach of excluding hybrid securities from gearing calculations.

In the 2022 RORI review, our sensitivity analyses showed that excluding hybrid securities is almost equivalent to treating hybrids as 50% debt and 50% equity, which is a common approach used by credit rating agencies in their assessments.²⁷⁹ We showed that the difference between excluding these values, and treating them as 100% debt, did not have a material impact on the overall gearing level.²⁸⁰

Stakeholders did not raise the issue of hybrid securities in their submissions.

12.2.2 Empirical estimates

Table 12.1 presents gearing estimates for 5 comparator businesses since 2006, using market values of equity and book values of debt (n.b. book value of debt is used as a proxy for the market value of debt).

Table 12.1 Gearing estimates based on market values of equity and book values of debt

Firm	Envestra Limited	APA Group	DUET Group	AusNet Services Limited	Spark Infrastructure Group	Average
Ticker	ENV	APA	DUE	AST	SKI	N/A
2006	66%	51%	79%	56%	60%	62%
2007	65%	59%	67%	55%	57%	61%
2008	77%	73%	76%	59%	70%	71%
2009	75%	68%	80%	70%	70%	73%

²⁷⁹ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp. 93-94.

²⁸⁰ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp. 93-94.

Firm	Envestra Limited	APA Group	DUET Group	AusNet Services Limited	Spark Infrastructure Group	Average
Ticker	ENV	APA	DUE	AST	SKI	N/A
2010	74%	61%	80%	64%	65%	69%
2011	66%	53%	79%	64%	62%	65%
2012	63%	47%	72%	59%	59%	60%
2013	53%	46%	71%	57%	62%	58%
2014	47%	45%	64%	58%	55%	54%
2015	n/a	50%	62%	59%	56%	57%
2016	n/a	49%	51%	54%	54%	52%
2017	n/a	49%	n/a	50%	52%	50%
2018	n/a	45%	n/a	53%	57%	52%
2019	n/a	45%	n/a	53%	59%	52%
2020	n/a	45%	n/a	57%	59%	54%
2021	n/a	49%	n/a	49%	58%	52%
2022	n/a	45%	n/a	44%	n/a	45%
2023	n/a	50%	n/a	n/a	n/a	50%
2024	n/a	56%	n/a	n/a	n/a	56%
2025	n/a	57%	n/a	n/a	n/a	57%
5-year average	n/a	51%	n/a	47%	58%	52%
10-year average	n/a	49%	51%	52%	56%	52%
Average since 2006	65%	52%	71%	57%	60%	57%

Source: Annual reports; AER analysis.

Note: SKI estimates are as at 31 December each year (except 2021, which represents 30 June estimates due to availability of data). AST estimates are as at 31 March each year. All other estimates are as at 30 June each year. Average values for each year represent the average for all firms in that year and does not make any adjustment for these timing differences. Average values are calculated as simple averages with any n/a values in the year range indicated ignored. These estimates presented reflect our decision to exclude all hybrid securities from analysis.

For completeness, Table 12.2 presents gearing estimates for 5 comparator businesses since 2006, using book values of both equity and debt.

Table 12.2 Gearing estimates based on book values of equity and debt

Firm	Envestra Limited	APA Group	DUET Group	AusNet Services Limited	Spark Infrastructure Group	Average
Ticker	ENV	APA	DUE	AST	SKI	N/A
2006	91%	67%	82%	57%	81%	76%
2007	90%	69%	75%	57%	80%	74%
2008	82%	71%	76%	58%	89%	75%
2009	80%	70%	79%	67%	85%	76%
2010	79%	68%	79%	62%	66%	71%
2011	78%	63%	77%	60%	69%	70%
2012	78%	64%	77%	61%	68%	70%
2013	71%	63%	79%	61%	68%	68%
2014	71%	65%	76%	64%	67%	69%
2015	n/a	68%	74%	69%	66%	69%
2016	n/a	71%	65%	64%	69%	67%
2017	n/a	71%	n/a	62%	69%	67%
2018	n/a	70%	n/a	66%	73%	70%
2019	n/a	74%	n/a	69%	76%	73%
2020	n/a	77%	n/a	74%	77%	76%
2021	n/a	77%	n/a	66%	76%	73%
2022	n/a	81%	n/a	81%	n/a	81%
2023	n/a	86%	n/a	n/a	n/a	86%
2024	n/a	80%	n/a	n/a	n/a	80%
2025	n/a	84%	n/a	n/a	n/a	84%
5-year average	n/a	81%	n/a	74%	76%	81%
10-year average	n/a	77%	65%	69%	73%	76%
Average since 2006	80%	72%	76%	65%	74%	74%

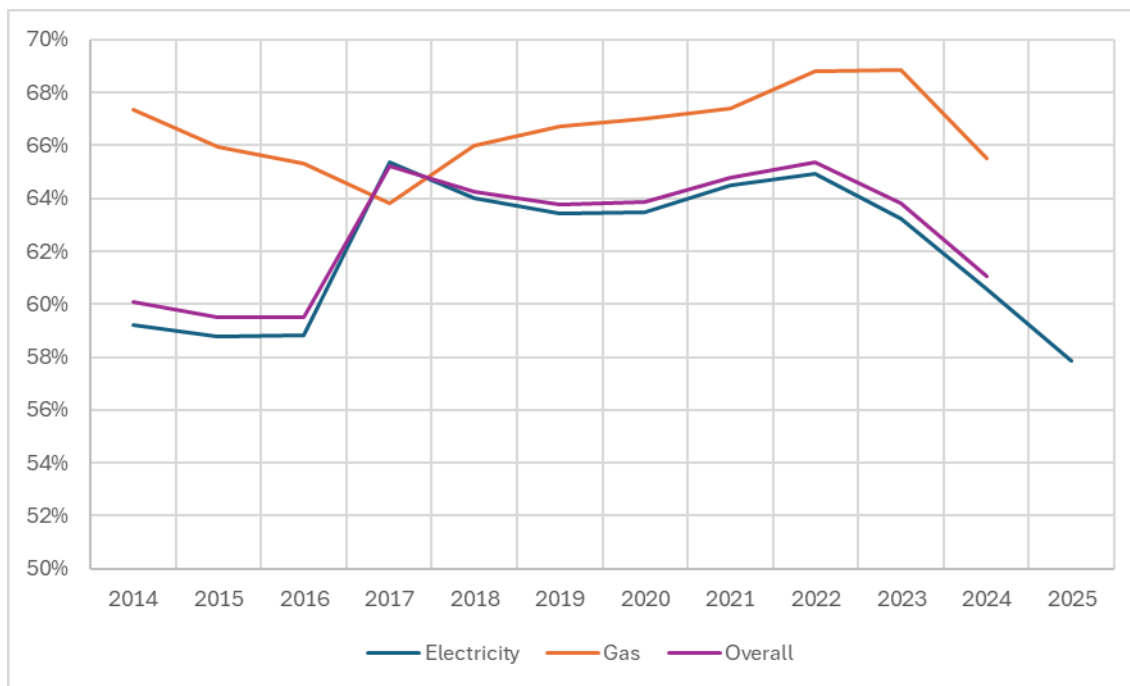
Source: Annual reports; AER analysis.

Note: SKI estimates are as at 31 December each year (except 2021, which represents 30 June estimates due to availability of data). AST estimates are as at 31 March each year. All other estimates are as at 30 June each year. Average values for each year represent the average for all firms in that year and does not make any adjustment for these timing differences. Average values are calculated as

simple averages with any n/a values in the year range indicated ignored. These estimates presented reflect our decision to exclude all hybrid securities from analysis.

We also reviewed data on NSPs’ actual debt-to-RAB ratios between 2014 to 2025, which we used as a cross-check. As shown in Figure 12.1 below, the overall ratio has been close to our benchmark gearing ratio of 60%.

Figure 12.1 NSPs’ average debt-to-RAB ratios, value weighted



Source: AER analysis.

Note: Figures for 2025 are preliminary and are subject to change.

12.2.3 Point estimate

Our draft decision is to maintain a benchmark gearing value of 60% for the 2026 RORI. This is based primarily on the long-term historical average of market value estimates, which is currently estimated at around 57%, and not materially different from our current benchmark value of 60%, as shown in Table 12.1. Shorter term market value estimates are lower (52%), as shown in Table 12.1. While book value estimates are higher (74-81%), as shown in Table 12.2. We also observed that the actual aggregate debt-to-RAB ratio across all the NSPs has been close to our benchmark gearing ratio of 60%.

We note that any change in our current benchmark gearing value would have significant complications for the trailing average return on debt allowance. We have not seen new evidence or a compelling case for change to warrant a change from the 60% benchmark gearing value. Therefore, our draft decision is to maintain the gearing ratio at 60%.

Whilst discussing the issue of gearing in the context of equity beta, our 2026 RORI review Eligible Experts, Mr Kumareswaran and Associate Professor Partington, agreed that the AER

should maintain the current benchmark value of gearing of 60% for the 2026 RORI.²⁸¹ Our other Eligible Expert, Professor Johnstone, also noted this approach as “pragmatic and generally representative.”²⁸²

NSP stakeholders, including Energy Networks Australia (ENA), Ausgrid and Endeavour Energy, also supported maintaining the current gearing ratio of 60%.²⁸³

The CRG observed that the 10-year average gearing ratio of 52% is below the current benchmark value of 60%, but did not suggest that we should adopt a different value of gearing.²⁸⁴ We noted in earlier in this section that we give primary weight to the longest-period market value estimates (rather than 10-year estimates), which is currently 57% and not materially different from our benchmark value of 60%.

²⁸¹ Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, pp. 23-27, 38.

²⁸² Eligible Experts, *2026 Rate of Return Instrument review – Eligible Experts’ joint report*, 24 November 2025, p. 14.

²⁸³ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p.38; Ausgrid, *Submission to the AER’s 2026 RORI discussion paper*, December 2025, p.3; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p.2.

²⁸⁴ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 13.

13 Imputation tax credits

Under the Australian imputation tax system, investors receive imputation credits (also known as franking credits) for tax paid at the company level. For eligible shareholders, imputation credits can be used to offset their Australian income tax liabilities. The value of imputation credits (known as gamma or ‘ γ ’) needs to be factored into regulation to recognise that imputation credits benefit equity holders, in addition to any dividends or capital gains they receive.²⁸⁵

Given that we use a post-tax framework with a rate of return that is derived after company tax, but before personal tax, the value of imputation credits is not a WACC parameter.²⁸⁶ Instead, it is a direct input into the calculation of a regulated firm’s tax liability, via the corporate tax component of the building block model. This approach is consistent with standard Australian regulatory practice and is the approach prescribed in the National Electricity Rules (NER) and National Gas Rules (NGR).

13.1 Draft decision

Our draft decision is to set a value of 0.58 for imputation credits (gamma) for the 2026 RORI.

We have maintained our overall approach to estimating gamma and its two parameters from the 2022 RORI. We have updated our empirical estimates and have adopted the following values:

- Gamma: 0.58 (distribution rate x utilisation rate)
- Distribution rate: 0.898716207
- Utilisation rate: 0.641706711

The draft decision value of 0.58 represents small increase from 0.57 in the 2022 RORI. This increase would lead to a small decrease in the regulated revenues of network service providers where a tax liability accrues. It would not affect firms that have no income tax payable because of net losses in the current regulatory period or losses carried over from previous regulatory periods.

For example, we estimate a reduction of about \$6.5 million in revenue, in aggregate, across the five Victorian electricity distribution businesses for which we released 2026-31 final decisions on 30 April 2026. This is estimated to reduce the average residential customer bill by less than \$1 per annum in the 2026-31 regulatory control period.

²⁸⁵ In this document, we use ‘value of imputation credits and ‘gamma’ interchangeably.

²⁸⁶ The AER uses a nominal vanilla WACC.

13.2 AER analysis and consideration

13.2.1 Estimation approach

Our overall framework has been to adopt the ‘utilisation’ approach, under which the value of imputation credits is equal to the product of two parameters (distribution rate x utilisation rate).²⁸⁷

- The distribution rate²⁸⁸ is the proportion of imputation credits generated that are distributed to investors. Our estimate of the distribution rate was informed by financial statements data of the top 50 Australian Securities Exchange (ASX) listed firms.
- The utilisation rate is the utilisation value to investors in the market per dollar of imputation credits distributed. Our estimate of the utilisation rate estimate was informed by Australian Bureau of Statistics (ABS) wealth data applying the equity ownership approach.

We maintain our approach from the 2022 RORI of not using the implied market value approach or data from the Australian Taxation Office to estimate the utilisation rate.²⁸⁹

Rounding approach

Our draft decision for the 2026 RORI is to maintain our approach of not rounding the distribution rate or the utilisation rate but rounding the overall gamma number to 2 decimal places.²⁹⁰

While rounding is not expected to create an error on average, we consider rounding intermediate numbers in calculations could create a rounding error and, as a result, a bias at a given point in time.

13.2.2 Updated empirical estimates

We maintain our ‘utilisation’ approach of estimating gamma as a product of the distribution rate and the utilisation rate.

This utilisation approach is informed by the Monkhouse extension of the Officer framework,²⁹¹ where investors are considered to obtain a certain ‘utilisation’ value from distributed credits and no value from undistributed credits.

Clauses 6.5.3 and 6A.6.4 of the NER and rule 87A of the NGR set out the cost of corporate income tax rule, which includes an adjustment for the value of imputation credits as follows:

²⁸⁷ See P. Monkhouse, ‘The Valuation of Projects Under the Dividend Imputation Tax System’, *Accounting and finance*, 1996, vol. 36(2), pp. 185-212.

²⁸⁸ This is also known as payout rate.

²⁸⁹ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp. 241-244.

²⁹⁰ AER, *2022 Rate of Return Instrument, Explanatory Statement*, p. 244.

²⁹¹ R. Officer, ‘The cost of capital of a company under an imputation system’, *Accounting and finance*, vol. 34(1), May 1994, pp. 1-17.

The estimated cost of corporate income tax of a Distribution/Transmission Network Service Provider for each regulatory year (ETC_t) must be calculated in accordance with the following formula:

$$ETC_t = ETI_t \times r_t \times (1-\gamma)$$

Where:

ETI_t is an estimate of the taxable income for that regulatory year that would be earned by a benchmark efficient entity as a result of the provision of standard control/prescribed transmission services if such an entity, rather than the Distribution/Transmission Network Service Provider, operated the business of the Distribution/Transmission Network Service Provider, such estimate being determined in accordance with the post-tax revenue model.

r_t is the expected statutory income tax rate for that regulatory year as determined by the AER, and

γ is the value of imputation credits.

Using our latest empirical estimates, this draft decision adopts a value of 0.58 for imputation credits (gamma) for the 2026 RORI, based on a distribution rate of 0.898716207 (unrounded) and a utilisation rate of 0.641706711 (unrounded, using the most recent 10-year average).

Distribution rate

Our estimate of the distribution rate is informed by our update of Dr Lally's previous analysis of the aggregate distribution rate using the data in the financial reports of the top 50 ASX listed firms.²⁹² We updated this analysis using 2025 data and applied the same methodology used by Dr Lally.

We estimated the distribution rate as the amount of franking credits distributed divided by the amount of tax paid from 2001 to 2025 for the top 50 ASX firms:

$$Distribution\ Rate_{2001\ to\ 2025} = \frac{Franking\ Credits\ Distributed_{2001\ to\ 2025}}{Tax\ Paid_{2001\ to\ 2025}}$$

The amount of franking credits distributed is estimated for each year from 2001 to 2025 from dividend payments based on a tax rate of 30%:

$$Franking\ Credits\ Distributed = Franking\ Dividends \times \frac{Tax\ Rate}{1 - Tax\ Rate}$$

The amount of tax paid is estimated by taking the most recent franking account balance as at 2025, minus the franking account balance as at 2000, plus the amount of franking credits distributed.

We estimated the aggregate distribution rate to be 0.898716207 (unrounded).

²⁹² Lally, *Estimating the distribution rate for imputation credits for the top 50 ASX companies*, 24 June 2021.

Table 13.1 shows the estimates of distribution rate since 2018.

Table 13.1 Distribution rates for the ASX top 50

ASX top 50	2018 RORI (2000 – 2017)	2022 RORI (2000 – 2021)	Draft 2026 RORI (2000 – 2025)
Imputation distribution (\$m)	235,970	346,008	481,646
Tax payments (\$m)	265,770	393,786	535,927
Distribution rate	0.888	0.879	0.899

Comparator: Tables 1 and 2 (pages 5–7) of October 2018 Lally report.

Source: AER analysis; Lally, *Estimating the distribution rate for imputation credits for the top 50 ASX companies*, 22 November 2019, p.6; Lally, *Estimating the distribution rate for imputation credits for the top 50 ASX companies*, 24 June 2021, p.6.

Note: The top 50 ASX companies were determined at 1 August 2018, consistent with the 2018 report.

Utilisation rate

Our approach to estimating the utilisation rate is informed by the Monkhouse framework, where the utilisation value is equal to the weighted average, by wealth and risk aversion, of the utilisation rates of individual investors.²⁹³

For an ‘eligible’ investor, each dollar of imputation credit received is assumed to be fully returned to the investor in the form of a reduction in tax payable or a refund.²⁹⁴ Therefore, we have considered that eligible investors have a utilisation rate of 1. Conversely, ‘ineligible’ investors cannot utilise imputation credits and are assumed to have a utilisation rate of 0.

Furthermore, our draft decision is to continue to adopt an estimate using the 10-year average because we consider the utilisation rate to be stable over time and that a longer period would produce a more reliable estimate. The most recent 10-year average is 0.641706711.

Table 13.2 shows our estimates of the utilisation rate since 2018.

Table 13.2 Utilisation rates from the equity ownership approach (2000 to 2025)

Estimates	2018 RORI	2022 RORI	Draft 2026 RORI
Range of annual estimates	0.612 – 0.697	0.618 – 0.702	0.618 – 0.702
Most recent point estimate	0.638	0.625	0.642
Average over last 5 years	0.646	0.642	0.636
Average over last 10 years	0.643	0.647	0.642

Comparator: Page 249 of the 2022 Explanatory Statement.

Source: AER analysis; ABS, *Australian National Accounts: Finance and Wealth*, December 2025.

Note: ABS data commences in September 2000 and runs to June 2018 (2018 RORI), September 2022 (2022 RORI) and December 2025 (Draft 2026 RORI).

²⁹³ J. Handley, *Report prepared for the Australian Energy Regulator: Advice on the value of imputation credits*, 29 September 2014, pp.18-20.

²⁹⁴ This is the return to eligible investors before administrative costs, personal taxes and diversification costs.

14 Overall rate of return cross-checks

Cross-checks involve comparing estimates of the rate of return against other relevant information sources. They may provide a sense check on whether the calculated estimates appear reasonable and broadly consistent with other sources of information. They can also provide additional information in situations where regulatory judgement may be required.

Cross-checks can be applied at different levels, including to the overall rate of return, the return on equity, and individual components of the return on equity (such as the risk-free rate and market risk premium (MRP)).

In this chapter, we focus on cross-checks at the overall rate of return and return on equity levels.

We also outline the sensitivity and scenario testing we have undertaken. Sensitivity analysis examines how the rate of return responds to changes in individual underlying parameters. Scenario analysis examines rate of return outcomes in different states of the world.

We also look at our draft decision for the 2026 RORI in the round, and consider whether the decision as a whole is likely to contribute to the achievement of the National Electricity Objective (NEO) and National Gas Objective (NGO) to the greatest degree.

14.1 Draft decision

Our draft decision for the 2026 RORI is to maintain the approach from the 2022 RORI of using cross-checks as a ‘sense check’ on the overall allowed rate of return and to assist in identifying potential issues.

Cross-checks are not applied in a mechanistic or formulaic manner, and they are not used to directly determine parameter estimates for the allowed rate of return. Rather, they provide supporting evidence and context for the exercise of regulatory judgement.

In applying cross-checks, we consider not only the results themselves, but also how those results should be interpreted. Where a cross-check indicates a potential concern, we assess whether this reflects an issue with the rate of return, or whether it may arise from other elements of the broader regulatory framework.

For example, where financeability metrics indicate potential pressure, this does not necessarily imply that the allowed rate of return is inappropriate. The outcomes may instead reflect assumptions relating to operating costs or the profile of depreciation. In these cases, any response may involve adjustments outside the rate of return. We discuss this further in section 14.2.2.

If we were to find that the RORI does not perform well under a particular cross-check or future scenario, we would consider options for adjustment, having regard to trade-offs with other aspects of the framework. This could include reconsidering:

- Capital asset pricing model (CAPM) input parameters (for example, equity beta and the use of the dividend growth model (DGM) to estimate the MRP)

- Cost of debt assumptions
- Broader settings (for example, the notional gearing assumption, and the revenue profile).

In the 2022 RORI review, we assessed a broad range of potential cross-checks and evaluated the insights each could provide. We found that regulated asset base (RAB) multiples, financeability tests and scenario testing provide useful information in a cross-checking context. By contrast, historical profitability, investment trends, other regulators' rate of return and analysts' discount rates were found to provide more limited insight, and therefore we considered these measures should not play a role in informing the overall rate of return.²⁹⁵

Our analysis in this review does not provide evidence to depart from this view. Accordingly, for the 2026 RORI, we will focus on RAB multiples, financeability tests and scenario analysis.

We have also considered historical profitability, in response to concerns raised by the Consumer Reference Group (CRG), Australian Council of Social Service (ACOSS), Justice and Equity Centre (JEC) and Institute for Energy Economics and Financial Analysis (IEEFA), as discussed in section 14.2.3.²⁹⁶ However, consistent with our previous conclusions, we do not place weight on this metric in informing the overall rate of return.

We have not included other cross-checks – such as investment trends, other regulators' rate of return, and analysts' discount rates – as we continue to find that they provide no useful conclusions about the rate of return.

We find that the parameters maintained for the 2026 RORI are supported by the selected cross-checks:

- RAB multiples – Recent transactions involving minority stakes in Endeavour Energy and Transgrid, indicating multiples of around 1.57 to 1.58, suggest that investors continue to place a premium on regulated network assets.
- Financeability tests – Indicate no material deterioration in financeability since the application of the 2022 RORI.
- Sensitivity and scenario testing – Sensitivity testing of key inputs (such as the risk-free rate and equity beta), and scenario testing across a range of potential future states of the world, do not indicate material concerns with the performance of the draft 2026 RORI.

Having regard to the results of the selected cross-checks, we are satisfied that we have exercised our judgment across parameters, methodologies and ranges such that the decision in the round will, or is most likely to, contribute to the achievement of the NEO and

²⁹⁵ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp. 259-283.

²⁹⁶ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, pp. 9-10; ACOSS, *Submission 2026 RORI*, December 2025, p. 2; JEC, *Rate of Return Instrument Review discussion paper*, December 2025, pp. 2-4; IEEFA, *Rate of Return Instrument Review discussion paper*, December 2025 pp. 1-2.

NGO to the greatest degree. We consider that our draft decision on the overall 2026 RORI is reasonable in light of this evidence.

14.2 AER analysis and consideration

14.2.1 Regulatory asset base multiples

Regulatory asset base (RAB) multiples measure the value of a firm relative to its RAB. RAB multiples can be estimated using:

- the share price of a firm with equity ownership in a regulated service provider, observed continuously where the firm is listed on a stock exchange (referred to as trading multiples), and/or
- the price paid when a significant ownership stake is transacted, such as through the sale of a large parcel of shares or a takeover (referred to as transaction multiples).

There are differing views on the role and usefulness of RAB multiples as a cross-check, as they can be influenced by a range of factors beyond the regulated rate of return. These factors include:

- the presence of unregulated business activities and expectations of growth in these activities
- control premium, overpayment or ‘winner’s curse’ effects
- incentive rewards and outperformance relative to regulatory allowances.

In the 2022 RORI review, we recognised that the application of RAB multiples requires careful interpretation, and that factors beyond the allowed rate of return can influence the value of regulated businesses. However, we did consider that RAB multiples provide a useful cross-check as they offer a direct indicator of the value that investors place on the businesses we regulate. We also noted that the rate of return earned on the RAB is an important driver of that value.

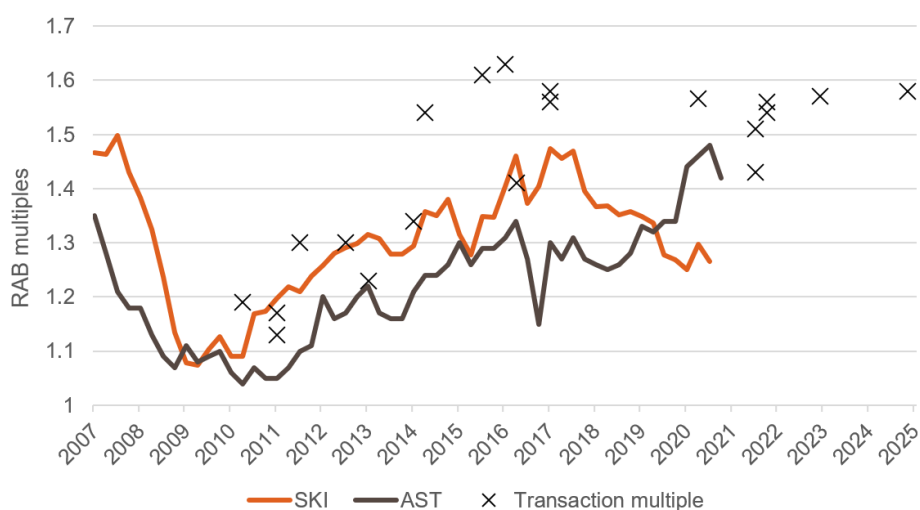
Since the 2022 RORI review, both Spark Infrastructure (SKI) and AusNet Services (AST) have been delisted following acquisition transactions. As a result, publicly observable market data from these firms is no longer available, and we are unable to continue tracking RAB multiples based on listed market valuations for these businesses.

However, we have updated the available evidence on RAB multiples using recent transaction data. In particular:

- a 12.6% stake in Endeavour Energy was acquired by Macquarie Asset Management
- a 10% stake in Transgrid was acquired by Government of Singapore Investment Corporation.

These transactions imply RAB multiples of around 1.57x for Endeavour Energy and 1.58x for Transgrid. These estimates are materially above the range of 0.9x–1.3x identified in 2018.²⁹⁷

Figure 14.1 AER regulated networks – transaction and trading multiples



Source: Morgan Stanley Research; AER analysis.

Note: These values have not been adjusted for factors that may drive RAB multiples above 1. SKI is Spark Infrastructure and AST is AusNet Services.

Overall, our further investigation leads us to conclude that the current and expected rates of return are at least sufficient, as part of the overall regulatory compensation to investors, and that the allowed return has not been below investor expectations. However, in view of the limitations with this type of analysis, we do not consider the evidence is sufficiently strong to make an adjustment to the position we have reached in our consideration of individual parameters.

14.2.2 Financeability tests

Financeability refers to a service provider's ability to meet its financing requirements.

Financeability tests consider whether a business can raise debt capital, and fund interest costs at a given credit rating. In practice, credit assessments are undertaken by rating agencies and involves both quantitative metrics and qualitative judgements. As a result, it is not possible to precisely replicate rating agency outcomes through a mechanical benchmark assessment. As such, regulators typically condense their analysis to a review of financial metrics against a benchmark rule of thumb.

In the 2022 RORI review, we used financeability tests as a sense check and used the funds from operations (FFO) to net debt ratio as the key financeability metric. This ratio measures the free cashflow relative to borrowings. We compared the resulting ratio against a 7% benchmark threshold and found that our financeability tests did not suggest that financeability had emerged as a problem under the 2018 RORI.²⁹⁸

²⁹⁷ Biggar D., *Understanding the role of RAB multiples in regulatory processes*, February 2018, p. 11.

²⁹⁸ AER, *Rate of Return instrument - Explanatory statement*, February 2023, pp. 266-269.

Stakeholders, including Energy Networks Australia (ENA), submitted that we should consider applying financeability tests set out in the AER's Financeability Guideline (Guideline) as part of the 2026 RORI review. ENA considered that this framework could be used to assess whether the regulatory allowances provided under the RORI are consistent with maintaining the benchmark BBB+ credit rating.²⁹⁹

Under the Financeability Guideline, four financial metrics are used to assess financeability:

- FFO interest coverage
- Net debt / RAB
- FFO / Net debt
- Retained cash flow / Net debt.

To inform its submission, ENA commissioned HoustonKemp to apply these metrics to outcomes from determinations that applied the 2022 RORI. According to ENA, this analysis indicates that a number of network service providers (NSPs) would not meet the benchmark BBB+ credit rating under these metrics.³⁰⁰ ENA acknowledges that credit ratings also depend on qualitative factors and, therefore, does not propose that financeability tests be applied in a mechanical way. However, ENA submits that the AER should clarify the extent to which it tolerates financeability test failures across determinations.³⁰¹

Submissions from Ausgrid and Endeavour Energy also support the use of financeability tests as a cross-check to assess the performance of the RORI framework.³⁰²

We consider that financeability tests can provide useful contextual information when assessing the overall rate of return. However, they should be interpreted as a sense check rather than a determinative test.

Financeability tests and associated financial ratios, on their own, are unlikely to indicate whether the allowed return on capital is set at an inappropriate level. This reflects several inherent limitations.

- Credit rating assessments typically involve both quantitative analysis of a service provider's actual and projected revenues, expenditure and financing costs, and qualitative assessment of its regulatory environment and ownership model. These assessments are used to form a view on a service provider's ability and willingness to meet its financial obligations. As a result, a service provider may have a credit rating above or below the benchmark depending on qualitative judgements and whether the service provider is expected to outperform or underperform relative to regulatory

²⁹⁹ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, p. 16.

³⁰⁰ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp. 17-19.

³⁰¹ ENA, *AER 2026 Rate of Return Instrument Review Response to AER Review Discussion Paper*, December 2025, pp. 14, 16.

³⁰² Ausgrid, *Submission to the AER's 2026 RORI discussion paper*, December 2025, pp. 3-4; Endeavour Energy, *2026 Rate of Return Instrument (RORI) Review Discussion Paper*, December 2025, p. 1.

allowances. Accordingly, a credit rating below the benchmark does not necessarily indicate that the allowed rate of return is insufficient (and vice versa).³⁰³

- Financeability outcomes are highly sensitive to assumptions about capital structure. Firms actively manage their financeability position through financial policies such as adjusting gearing levels, issuing equity or retaining earnings. In some cases, firms may choose to maintain higher debt levels even if this increases the risk of a credit rating downgrade.³⁰⁴
- Financeability test results may be affected by the timing of regulatory cash flows, particularly the profile of depreciation allowances. A business may fail a financeability test even when the overall level of regulatory revenues is sufficient, simply because cash flows occur later in regulatory period.³⁰⁵

These considerations are consistent with the intent of the Guideline. The Guideline is designed to assess whether a transmission NSP faces a financeability constraint when undertaking an actionable Integrated System Plan (ISP) project, rather than to determine whether the allowed rate of return is appropriate.³⁰⁶

Where a financeability issue is identified under the Guideline, the AER may adjust regulatory cash flows – for example, by bringing forward depreciation – to improve cash flows during the project’s construction phase. Importantly, any such adjustment must be net present value (NPV) neutral, meaning it changes the timing of revenue recovery but does not increase the total revenue recovered from consumers over the long term. In this way, the Guideline facilitates efficient investment in major transmission projects, while protecting the long-term interests of consumers.³⁰⁷

Therefore, we consider it appropriate to continue using the FFO/net debt ratio as a contextual cross-check when assessing financeability. As financeability tests are used only as a sense check rather than a determinative test, a single indicator is sufficient to provide an overall signal of potential financeability concerns.

We have updated our financeability analysis since the 2018 RORI review (see Table 14.1 below). We found that 28 of the 33 firms met the 7% rule of thumb threshold. We note that our update for 2025 uses our draft decision beta of 0.55 and MRP of 6.1%.

Overall, this analysis continues to support our conclusion that financeability has not emerged as a concern. However, in view of the limitations of this analysis, we do not consider the evidence is sufficiently strong to warrant an adjustment to the position reached in our consideration of individual parameters.

³⁰³ AER, *Draft rate of return guidelines*, Explanatory statement, July 2018, pp. 152-153.

³⁰⁴ AER, *Rate of Return instrument - Explanatory statement*, February 2023, p. 267.

³⁰⁵ AER, *Draft rate of return guidelines*, Explanatory statement, July 2018, pp.150-151.

³⁰⁶ AER, *Financeability guideline*, November 2024, pp.3-4.

³⁰⁷ AER, *Financeability guideline*, November 2024, pp.3-4.

Table 14.1 Update of 2018 RORI FFO/net debt analysis

Measure	2018	2022	2025
Number of firms	29	32	33
Average FFO/net debt	8.44%	8.07%	10.07%
Industry average return on equity	7.06%	7.32%	8.44%
Number of firms with less than 7% FFO/net debt	8	10	5
Number of firms with higher FFO/net debt compared to 2018	-	8 out of 32	21 out of 33
Number of firms with higher FFO/net debt compared to 2022	-	-	29 out of 33
Average increase in FFO/net debt compared to 2018	-	1.19%	2.12%
Average decrease in FFO/net debt compared to 2018	-	-1.06%	-0.92%
Average increase in FFO/net debt compared to 2022	-	-	1.65%
Average decrease in FFO/net debt compared to 2022	-	-	-0.39%

Source: AER analysis; RBA, *Statement on Monetary Policy*, November 2025.

Note: Net debt is estimated as the average of opening and closing debt proportion (60%) of the RAB. Average changes in FFO/net debt are calculated as the simple average of the difference between each firm's estimates over the periods 2018 to 2022 and 2022 to 2025. We estimated each firm's FFO/net debt as the average over the relevant 5-year period. Average increases and decreases in FFO/net debt are calculated as the simple average of the percentage change in FFO/net debt for firms that experienced an increase or decrease over the period from 2018 to 2025. The 2025 column is a hypothetical FFO estimate for illustrative purposes, which assumes real operating expenditure and capital expenditure cash flow is fixed and makes updates to inflation and the return on equity. The return on equity has been calculated using a risk-free rate of 4.78% estimated over an averaging period of 20 business days ending 31 December 2025, an MRP of 6.1% and an equity beta of 0.55. An inflation forecast of 2.68% was used based on the November 2025 RBA Statement on Monetary Policy. We note using an inflation forecast of 2.76% based on the May 2026 RBA Statement on Monetary Policy would not have changed the results materially.

14.2.3 Historical profitability

Historical profitability measures are backward-looking measures of the actual returns earned by businesses.

In the 2022 RORI review, we considered that historical profitability may provide contextual information. However, we did not consider that useful conclusions about the rate of return can be drawn from the analysis of historical profitability.³⁰⁸ Consistent with this view, neither the 2018 nor 2022 RORI reviews relied on historical profitability in a material way when deciding the overall rate of return.

The CRG, ACROSS, JEC and IEEFA have pointed to evidence from the AER's 2024 Electricity and Gas Networks Performance Report showing that actual returns on regulated

³⁰⁸ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, p. 272.

equity (RoRE) have consistently exceeded the allowed return on equity.³⁰⁹ In particular, attention has been drawn to the high RoRE outcome observed in 2023.³¹⁰

The AER's most recent network performance analysis indicates that these outcomes were largely driven by the treatment of inflation within the regulatory framework.³¹¹ As outlined in the AER's 2025 Electricity and Gas Networks Performance Report (2025 Report):

“The operation of the framework involves NSPs bearing the risk from actual inflation differing from expected inflation, as it is a more efficient allocation of risk. NSPs have greater resources or ability than consumers to mitigate against variations from expected inflation. As NSPs bear the risk from inflation, there will be higher returns for NSPs when inflation is higher than expected, and lower returns when inflation is lower than expected. There has been a recent shift from a very low to a materially higher inflation rate environment, contributing to higher RoRE achieved by network.”

Additionally, as shown in Figure 14.2, the 2025 Report indicates that as inflation has moderated, RoRE has declined. In particular, the weighted average electricity NSP RoRE fell by 6.9% between 2023 and 2024.³¹²

Some stakeholders raised concerns regarding the impact of inflation on the rate of return.³¹³ These issues are discussed in section 14.2.5.1, where we discuss how inflation is applied across our key models (including the post-tax revenue model (PTRM), roll-forward model (RFM) and annual pricing model).

³⁰⁹ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, pp. 9–10; ACOSS, *Submission 2026 RORI*, December 2025, p. 2; JEC, *Rate of Return Instrument Review discussion paper*, December 2025, pp. 2–4; IEEFA, *Rate of Return Instrument Review discussion paper*, December 2025 pp. 1-2.

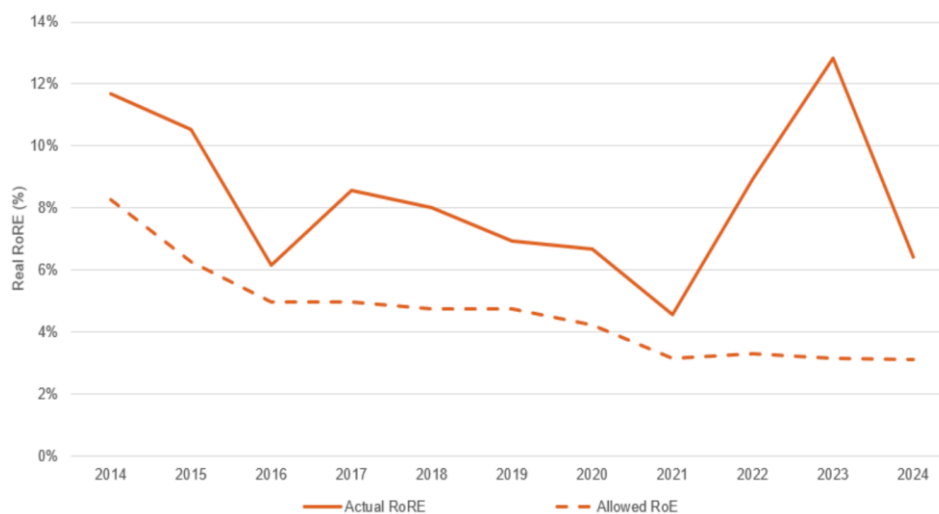
³¹⁰ CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 9.

³¹¹ AER, *2025 Electricity and gas networks performance report*, December 2025, p. 78-79.

³¹² AER, *2025 Electricity and gas networks performance report*, December 2025, p. 79.

³¹³ ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER's 2026 Rate of Return Instrument Review*, December 2025, pp. x-xii, 12-15; CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 9.

Figure 14.2 Real returns on regulated equity compared with forecast returns on equity – DNSPs and TNSPs



Source: AER, *Electricity and gas network performance report 2025*, p. 79.

More broadly, the AER's performance reports show that realised returns vary over time and are influenced by a range of factors beyond the allowed rate of return. These include revenue adjustments, incentive scheme outcomes, opex and capex outperformance, capital structure, cost of debt and inflation rate variation.³¹⁴

In particular, the AER's incentive-based regulatory framework – including the Efficiency Benefit Sharing Scheme (EBSS) and Capital Expenditure Sharing Scheme (CESS) – provides network businesses with incentives to outperform expenditure benchmarks and improve efficiency. Under these schemes, businesses are able to retain a share of efficiency gains for a defined period, which is intended to encourage efficient service delivery in the long-term interests of consumers. Consistent with the design of these schemes, efficiency gains are subject to sharing mechanisms and are not expected to persist indefinitely. Over time, the benefits of improved efficiency are passed through to consumers through lower forecast costs.³¹⁵

Taken together, this evidence suggests that the differences between actual RoRE and allowed returns largely driven by features of the regulatory framework and prevailing economic conditions, rather than necessarily reflecting systematic overestimation of the allowed rate of return. Consistent with the approach taken in the 2018 and 2022 RORI reviews, we consider that historical profitability has limitations as a basis for assessing the forward-looking rate of return.

³¹⁴ See detailed explanation in AER, *2024 Electricity and gas networks performance report*, September 2024, pp. 73-75.

³¹⁵ AER, *Final decision - Review of incentive schemes for networks*, 28 April 2023, p. 4.

14.2.4 Sensitivity testing

We undertake sensitivity testing on key parameters to assess how changes would affect the ROE, revenues and household bills. These tests also inform our assessment of how the RORI may perform under different states of the world (scenario analysis).

Risk-free rate test – How does the return on equity vary with the risk-free rate?

This sensitivity test examines how the return on equity varies with changes in the risk-free rate.

We estimate that for any given point in time, a $\pm 3\%$ change in the risk-free rate would result in:

- $\pm 3\%$ on ROE
- $\pm 9.6\%$ on revenues³¹⁶
- $\pm \$77$ per year on household bills.

This reflects the direct relationship between the risk-free rate and the allowed return on equity under a fixed MRP framework.

Beta test – How does the return on equity vary with beta?

We consider whether there is evidence to support an equity beta between 0.4 and 0.7. Our draft decision reduces equity beta from the 2022 RORI value of 0.6 to 0.55. We estimate that each ± 0.05 change in beta has the following impacts:

- $\pm 0.3\%$ on ROE
- $\pm 1.0\%$ on revenues
- $\pm \$8$ per year on household bills.

Overall, we are satisfied that an equity beta of 0.55 is supported by the evidence.

14.2.5 Scenario analysis

Scenario testing is a technique used to project outcomes under the draft 2026 RORI based on potential movements in underlying inputs and parameters. It allows the rate of return (and regulated revenue) to be modelled across a range of economic scenarios.³¹⁷ This exercise also assists stakeholders in understanding the impact of alternative assumptions on price levels, price stability and price movements over time.

The outcome of most interest for this review is variations in the return on equity. However, with some assumptions, these results can be extended to the overall rate of return, revenues and prices.

³¹⁶ Our calculation of bill impacts is based on an assumption that a 1% change in the ROR results in an 8% impact on NSPs' unsmoothed revenues. Assuming a 40% network component of the \$2,000 average household bill, this results in a 3.2% bill impact. This calculation ignores demand impacts.

³¹⁷ AER, *Overall rate of return, equity and debt omnibus - final working paper*, December 2021, p. 141.

Scenario testing has several strengths:

- it allows stakeholders, including us, to observe how the rate of return performs under different conditions and assumptions, and how it responds to changes in the underlying parameters; and
- it may act as a sense check on our rate of return if properly implemented especially because the RORI is fixed for the duration of its (four-year) application.

Our analysis indicates that scenario testing is a useful tool for exploring how the RORI may perform under different conditions, while recognising that it is not intended to provide definitive outcomes. Accordingly, scenario tests have been developed to assess how the framework operates across a range of potential states of the world, including the implications for consumer bills over time.

Building on the approach adopted in the 2022 RORI review, we consider a range of economic environments characterised by differing combinations of interest rates, inflation, and growth. This analysis is intended to provide insights into how the RORI performs under varying economic conditions. We do not express any view about the likelihood of these scenarios.

14.2.5.1 Higher interest rates and higher inflation rates (0-5 years)

In recent years, macroeconomic conditions have evolved significantly. Following the period of elevated inflation and rapid monetary tightening observed in 2022–23, inflationary pressures have moderated but remain above long-term targets. Interest rates have stabilised at a higher level than those prevailing prior to 2022, reflecting ongoing uncertainty regarding the persistence of inflation.

Possible impacts on consumers and wider economy include:

- continued cost of living pressures, particularly rising costs of fuel, food and energy
- higher mortgage and borrowing costs
- reduced real value of savings during periods of elevated inflation
- reduced investment potential leading to lack of job creation.

We have considered the implications of these conditions for our draft 2026 RORI and the broader regulatory framework in which it operates. We have assessed whether the current decisions are likely to best achieve the NEO and NGO in such a scenario.

The RORI reflects higher interest rates in two primary ways.

- First, the allowance for debt costs will increase each year to reflect a 10-year trailing average. As the rates increase, the trailing average cost of debt will increase. We have applied this approach since 2013 and, while it does not reflect the forward-looking opportunity costs, all stakeholders are aware of the reasons and benefits of this approach. We consider this approach is appropriate to closely reflect company costs on an ongoing basis.

- Second, the allowed return on equity will increase at the time of each regulatory determination during the life of the RORI. A periodic update at each regulatory price/revenue reset (generally, every 5 years) using market data at the time the determination is made, means that energy consumers will not see interest rates reflected in energy bills until each reset falls due (once every 5 years). We consider that setting the return on equity at each decision point, based on the most recent market data for SL CAPM and cross-checks, is a fair approach. This approach helps to secure that consumers' bills closely reflect costs, as estimated at each determination. The key benefit of this approach is that it allows us to consider the best information at regular intervals without over relying on mechanical updates, which would not be appropriate (or possible) when judgement is required.

Therefore, consumers' energy bills will increase progressively in line with high interest rates over the short term.

Inflation is considered across a number of regulatory processes, including:³¹⁸

- the PTRM, which uses expected inflation to set total revenue requirements for the regulatory period and establish a starting revenue for year one
- annual pricing, which escalates allowed revenue for years 2 to 5 using a CPI-X formula based on actual inflation
- the RFM, which updates the RAB by applying actual inflation at the end of each regulatory period.

Through these mechanisms, inflation affects the regulatory framework in a number of ways. Higher inflation contributes to increases in the RAB, which are recovered from consumers over time, and is reflected in annual price adjustments through CPI-based indexation. As a result, movements in actual inflation flow through to prices, meaning that regulated revenues vary over time broadly in line with price movements in the wider economy.

ECA and other consumer stakeholders raised concerns about the treatment of inflation in this context – particularly its impact on the rate of return – and have suggested it be considered further as part of the 2026 RORI review.³¹⁹ In particular, concerns have been raised that where actual inflation differs from expected inflation, there is potential for a mismatch between prices paid by consumers and revenues received by network businesses relative to expectations.

We do not consider inflation to be a rate of return issue, but a broader regulatory framework issue relating to how a NSP's RAB is indexed. Accordingly, we consider inflation is outside the scope of this RORI review. We will continue to give consideration to whether further work in this area is warranted.

³¹⁸ AER, *Rate of Return Instrument, Explanatory Statement*, 24 February 2023, pp. 296-297.

³¹⁹ ECA, *Attachment - EMAS Report for Energy Consumer Australia's Submission to the AER's 2026 Rate of Return Instrument Review*, December 2025, pp. x-xii, 12-15; CRG, *Submission to AER Rate of Return Instrument Review discussion paper*, December 2025, p. 9.

Overall, we consider that the draft 2026 RORI remains robust in a scenario of higher inflation and higher interest rates because it:

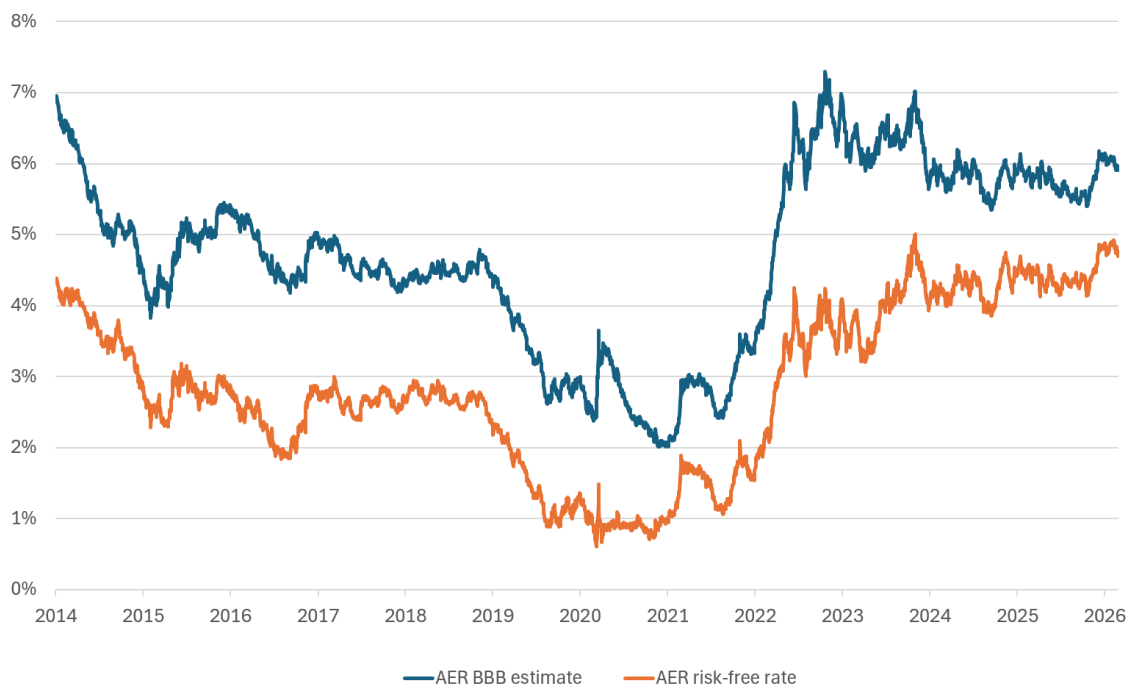
- automatically reflects market conditions for corporate debt rates through the trailing average debt mechanism
- reflects changing equity markets at each regulatory determination
- reflects inflation over the long term (via additions to RAB) and protects consumers from short-term spikes.

14.2.5.2 Lower interest rate (0-5 years)

From 2010 to 2021, interest rates declined for both short-term debt (for example, debt maturing in less than a year) and longer-term debt (for example, those maturing in 5 to 10 years). These movements in interest rates are important to the networks we regulate and their customers. Changes in interest rates affect the revenues and prices that we allow the regulated networks to charge, the costs that networks face in providing services, and ultimately the prices paid by consumers.

In a low interest rate environment, return on debt estimates (for BBB rated debt) decline in line with falling interest rates (as shown in Figure 14.3). This relationship has also been observed as interest rates have increased since 2021, with return on debt estimates rising accordingly.

Figure 14.3 Comparison of AER BBB estimate and AER risk-free rate



Sources: AER analysis; Bloomberg; RBA.

However, the trailing average return on debt allowance has usually exceeded the on-the-day rates during a downward trend in interest rates (as shown in Figure 7.1).

Our position remains that our current approach to estimating the return on debt remains appropriate in a low-interest rate environment.

We also considered changes to the cost of equity in this scenario.

Our estimates of the cost of equity have also declined from 2010 to 2021, reflecting their linkage to Commonwealth Government Securities (CGS). Lower estimates of the return on equity, in turn, affected networks' cashflows, including through reduced allowed returns and RAB indexation adjustments.

For NSPs, the return on equity is updated at the time of each regulatory determination during the life of the RORI. This results in changes to allowed revenues over time, with lower estimates of the return on equity contributing to reductions in prices faced by consumers at the time of each determination.

We note that the 2018 RORI was applied during periods of low interest rates and low inflation. During this period, investor demand, as measured in our RAB multiples (see Figure 14.1), actually increased. This gives us confidence that the 2026 RORI would also be reasonable, given our proposal to use the same approach for risk-free rate and MRP.

This evidence provides support for maintaining our approach to estimating the return on equity, including the use of CGS-based risk-free rates and the MRP, under the draft 2026 RORI. Accordingly, we consider that our approach to the return on equity remains appropriate in a low interest rate environment.

14.2.5.3 Lower economic growth (0-5 years)

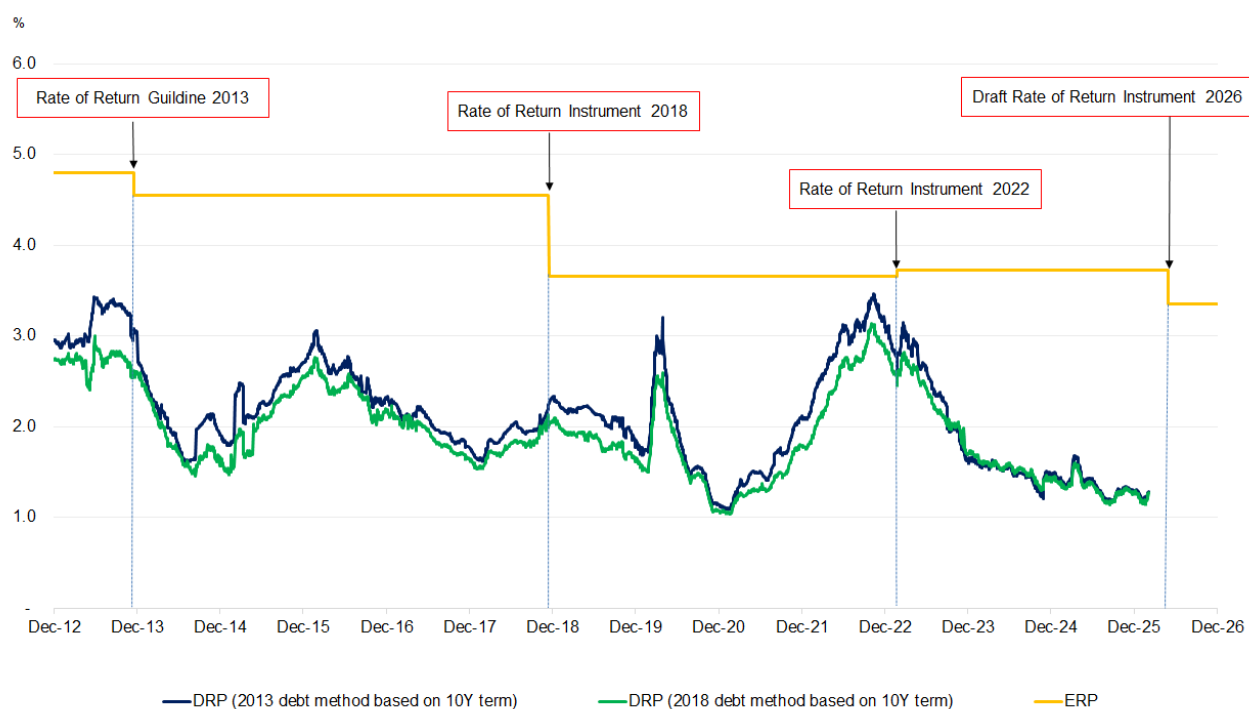
We consider the potential implications of a low growth scenario for the RORI.

Possible impacts of such a scenario on consumers and the broader economy include:

- reduced business and consumer spending, reflecting weaker economy activity
- higher unemployment, as businesses seek to reduce costs
- changes in debt and equity markets. For example, the dividend growth model (DGM) suggests that equity prices will fall as growth falls. In this case, investors may look for safe stocks in a 'flight to safety' and demand for network assets may actually increase.

Overall, the impact of a low growth scenario on the RORI is uncertain, as low growth may be associated with a range of outcomes for interest rates, inflation, and risk parameters such as the equity risk premium (ERP) and equity beta.

However, we can draw insights from how the 2022 RORI has performed over time. In our determinations, we have had regard to the margin between the ERP and debt risk premium (DRP) as a relative indicator. As shown in Figure 14.4, a positive spread between the ERP and DRP has been maintained over this period. This provides some confidence that the draft 2026 RORI is likely to remain robust under a low growth scenario.

Figure 14.4 Comparison of ERP and DRP

Source: AER analysis; Bloomberg; Thomson Reuters; RBA.

We also take comfort from our approach to estimating equity beta. Our approach places weight on long-term estimates, such that the RORI reflects long-run market conditions rather than short-term fluctuations. This is consistent with our view that the beta for the benchmark efficient entity is relatively stable over time.

This view is supported by the observed stability in revenues and share prices of Australian regulated energy businesses during periods of market volatility, including the COVID-19 pandemic period and recent acquisition activity. This stability reflects the underlying characteristics of these businesses, including their natural monopoly features and operation within a stable regulatory framework.

Overall, we consider that our approach promotes stability and predictability in the allowed rate of return by relying on long-term parameter estimates. Accordingly, we consider that the draft 2026 RORI is sufficiently robust to the risks outlined in this low growth scenario.

14.2.6 Decision in the round and conclusion

Having regard to the selected cross-checks and supporting analysis, we are satisfied that the overall rate of return that is derived under the draft 2026 RORI is consistent with our established approach and the objectives of the RORI.

The results of RAB multiples analysis, financeability testing, and sensitivity and scenario analysis do not indicate material concerns with the current approach or the draft decision reduction in the equity risk premium. Taken together, these cross-checks provide comfort that the allowed rate of return remains within a reasonable range of outcomes consistent with efficient financing costs.

While these cross-checks are inherently subject to uncertainty and should not be interpreted in isolation, they together support the view that the parameters applied in this draft decision are appropriate in current market conditions.

Accordingly, we consider that our draft decision for the 2026 RORI in the round reflects a reasonable exercise of regulatory judgement across the relevant parameters and methodologies, and is most likely to contribute to the achievement of the NEO and NGO to the greatest degree.

Appendix A: List of submissions

The following stakeholders made submissions in response to the AER’s discussion paper (4 August 2025) and Eligible Experts’ report (24 November 2025).

Stakeholder	Date
Australian Council of Social Service (ACOSS)	December 2025
APG Asset Management, IFM Investors and AustralianSuper	December 2025
Ausgrid	December 2025
AusNet Services	December 2025
Clean Energy Finance Corporation (CEFC)	December 2025
Consumer Reference Group (CRG)	December 2025
Energy Consumers Australia (ECA)	December 2025
Energy Networks Australia (ENA)	December 2025
Endeavour Energy	December 2025
Energy Queensland	December 2025
Energy Users’ Association of Australia (EUAA)	December 2025
First Nations Clean Energy Network (FNCEN)	December 2025
Institute for Energy Economics and Financial Analysis (IEEFA)	December 2025
Justice and Equity Centre (JEC)	December 2025
Lynette LaBlack / Save Our Surroundings Riverina	December 2025
Marinus Link	December 2025
Queensland Treasury Corporation (QTC)	December 2025
Transgrid	December 2025

Appendix B: Summary of submissions

The tables below summarise the key points made by stakeholders in response to the AER's discussion paper.

Summary of submissions on weighted trailing average

Theme	Summary of submissions	AER consideration
Need for change from the simple trailing average	<ul style="list-style-type: none"> The simple trailing average does not reflect efficient financing costs where capex is large, uneven or concentrated over short periods. New debt raised at historical rates could misalign the allowed return on debt with prevailing market rates, undermining NPV neutrality and investment incentives. (Energy Networks Australia (ENA), Queensland Treasury Corporation (QTC), Transgrid, AusNet Services, Energy Queensland and Marinus Link) The case for change had not been established. The AER had previously concluded any deviation from the NPV = 0 condition was not material. The discussion paper did not demonstrate a material change in circumstances since the 2022 RORI. (Consumer Reference Group (CRG)) The need for a weighted trailing average had not been demonstrated. Recent rule changes and policy developments already addressed financeability concerns associated with lumpy transmission capex. (Institute for Energy Economics and Financial Analysis (IEEFA)) 	See section 7.2.4
Support for a weighted trailing average	<ul style="list-style-type: none"> Support adopting a weighted trailing average approach to the return on debt in principle. A weighted trailing average would better reflect the timing and scale of actual debt issuance, reduce under- or over-compensation during periods of interest rate volatility, and improve alignment with efficient financing practices. (ENA, QTC, Transgrid, AusNet Services, Endeavour Energy, Energy Queensland, Marinus Link and CEFC)). Support for a weighted trailing average is conditional on the approach being simple, proportionate, consistent with past AER decisions and transparent in its outcomes. Also, existing debt should continue to be treated using historical rates, with any increase in debt assumed to be raised at the prevailing benchmark rate and transitioned using the AER's established transition approach. (ENA) 	See section 7.2.4
Choice of weighted trailing average model	<ul style="list-style-type: none"> Preference for a simplified weighted trailing average methodology, commonly referencing the approach developed by the QTC. Applying the prevailing benchmark cost of debt to incremental debt better reflects efficient financing costs at the time capital is deployed, particularly for large and uneven capex 	See section 7.2.4

	<p>programs. Under the QTC approach, historical rates would continue to apply to existing debt, with new debt incorporated into the portfolio over time and transitioning back to a simple trailing average. (ENA, Transgrid, AusNet Services, Endeavour Energy, Energy Queensland and CEFC)</p> <ul style="list-style-type: none"> • The above stakeholders submitted that the QTC approach was simpler and more transparent than alternative weighted trailing average models and more closely aligned with observed financing practices. • The above stakeholders submitted that the AER's weighted trailing average illustrative example was complex, impractical and inconsistent with real-world debt issuance practices, noting firms typically issue a small number of large tranches rather than multiple small issuances each year. • The above stakeholders submitted that the AER's approach would increase debt raising, transaction and administrative costs, increase reliance on derivatives, and not reflect efficient and prudent funding strategies based on standard market tenors. 	
<p>Application of a weighted trailing average approach</p>	<ul style="list-style-type: none"> • If a weighted trailing average were adopted, it should generally apply across all NSPs rather than through opt-in mechanisms. Uniform application would avoid unnecessary complexity, arbitrary cut-offs and asymmetries, and reduce the risk of distorting investment incentives. (QTC, ENA, Transgrid, AusNet Services, Endeavour Energy, Energy Queensland, CEFC and Energy Consumers Australia (supported by its consultant, EMAS)) • Materiality thresholds should not be used, noting thresholds would be arbitrary, potentially incomplete, could give rise to distortions and gaming behaviour, and lacked an objective basis for determination. (QTC) • Thresholds would introduce unnecessary complexity and edge cases, noting small changes in forecast capex could move a network above or below a threshold across years. (ENA) • Threshold-based application would be particularly problematic for networks with large and variable RAB growth, such as transmission networks. (Transgrid) • Under the QTC design, businesses with declining RAB would automatically revert to simple trailing average, reducing the need for explicit thresholds or optional triggers. (AusNet Services) • Endeavour Energy supported uniform application under the simplified QTC model but submitted that a materiality threshold may be appropriate if the AER's illustrative weighted trailing average were adopted due to complexity concerns. (Endeavour Energy) 	<p>See section 7.2.4</p>

	<ul style="list-style-type: none"> Targeted application may be preferable, noting thresholds could influence NSP behaviour and that there is no objectively correct threshold. (CRG) 	
True-up mechanisms and roll-forward mechanism	<ul style="list-style-type: none"> Any mismatch between forecast and actual outcomes are addressed in principle through the existing RAB roll-forward and capital expenditure sharing scheme (CESS), and that no separate true-up is required under a weighted trailing average. (ENA) A roll-forward adjustment is required under a weighted trailing average so the return on debt reflects actual financing outcomes, which would require changes to how the CESS applies debt weights. (Transgrid) Supports an adjustment to reconcile forecast debt (PTRM) and actual debt (RFM), particularly for large projects where timing uncertainty can materially affect financing costs. (QTC) Supports a true-up mechanism to reduce the risk of over- or under-recovery where financing requirements differ from those assumed at determination. (AusNet Services) Some form of true-up or adjustment is required under a weighted trailing average (CEFC, CRG and ECA (supported by its consultant, EMAS)), though timing should depend on materiality and may occur in the next regulatory period (CRG). 	See section 7.2.4
Interaction with Capital Expenditure Sharing Scheme (CESS)	<ul style="list-style-type: none"> The CESS already applies returns to actual capex, and that only limited adjustment to the financing benefit calculation may be required under a weighted trailing average. (ENA) Does not consider financing benefits would be double-counted where a true-up and the CESS co-exist. (QTC) The CESS would need to be modified to recognise actual rather than forecast debt weights and avoid double counting. (Transgrid) Any overlap between a weighted trailing average and the CESS should be managed within the CESS and is expected to be minor. (AusNet Services) Interaction between a weighted trailing average and the CESS could result in overlap if not addressed (CEFC and CRG), though any CESS changes should follow the RORI (CRG). 	See section 7.2.4
Consumer impacts and revenue outcomes	<ul style="list-style-type: none"> Consumer impacts of a weighted trailing average depend on the timing of capex and interest rate movements, with modelling using Ausgrid indicating returns would have been above the uniform trailing average from 2022–23. (ECA (drawing on its consultant's (EMAS) modelling) The above outcome is attributed to low capex when interest rates were low, and higher capex coinciding with higher interest rates. EMAS (ECA's consultant) 	See section 7.2.4

	<ul style="list-style-type: none"> Based on the above information, a weighted trailing average could, in some circumstances, result in higher allowed revenue and higher prices, and that impacts should be assessed across the full revenue building block, not the return on debt in isolation. (ECA) 	
Consumer compensation and distributional effects	<ul style="list-style-type: none"> NSPs benefited materially from the trailing average return on debt during periods of falling interest rates. (ECA (supported by its consultant, EMAS)) Consumers have not had a symmetrical opportunity to recover those benefits as interest rates have risen. (ECA) Based on the above information, if the return on debt methodology were changed, consumer compensation may be required, potentially through a one-off RAB adjustment. (ECA) 	See section 7.2.4

Summary of submissions on Third-party yield curve data

Theme	Summary of submissions	AER consideration
Third-party yield curve data	<ul style="list-style-type: none"> Supports reintroducing RBA corporate bond yield data as an input to estimating the return on debt, advocating for equal weighting across three independent third-party data sources, consistent with past RORI. (ENA, AusNet Services and QTC). Supports a straightforward yield-based extrapolation using published RBA yields and do not support independently sourcing swap data or applying a swap risk premium approach, noting that RBA corporate bond yields have effective tenors shorter than 10 years. (ENA and AusNet Services). Provided analysis indicating that the swap risk premium approach produces downward-biased and more volatile estimates, submitting that linear extrapolation using RBA 7- and 10-year corporate bond yields provides a simpler and more accurate estimate, with a further submission that any swap-based approach would require tenor adjustment to avoid bias. (QTC, supported by ENA). 	See section 8.2.4

Summary of submissions on market risk premium

Theme	Summary of submissions	AER consideration
Approach to estimating the market risk premium	<ul style="list-style-type: none"> The AER should apply the existing approach to estimating the market risk premium (MRP) for the 2026 RORI, noting that MRP had not been identified as a priority issue for the current review and does not warrant reconsideration. (ENA and Endeavour Energy). The AER's current MRP approach is anchored to the long-run arithmetic average of historical excess returns, 	See section 10.2.3

	<p>with other evidence used as secondary checks, and submitted that there is no new evidence to justify a departure from the approach adopted in the 2018 and 2022 RORIs. (ENA)</p> <ul style="list-style-type: none"> • Potential refinements could be made outside the current review (Endeavour Energy), and clarity is sought on the data period to be used to inform the MRP, including whether calendar-year 2026 data will be incorporated (Endeavour Energy and ENA). • Potential for upward bias in the MRP point estimate selected in the 2022 RORI, and highlighted limitations in the HER estimate, including the exclusion of geometric averages, surveyorship bias and the influence of the sample period ending at a relatively high point in the market. (CRG) 	
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Summary of submissions on approach to the risk-free rate

Theme	Summary of submissions	AER consideration
Approach to estimating the market risk premium	<ul style="list-style-type: none"> • Adopting a 5-year term for the risk-free rate, which would be more consistent with the NPV = 0 principle. (ECA (supported by its consultant, EMAS)) • The AER's current approach to estimating the risk-free rate should be treated as settled for the purposes of the 2026 RORI, noting that the AER has consistently adopted a 10-year term across multiple prior reviews. (ENA) • Consistent with the streamlined scope of the 2026 RORI review, the risk-free rate should not be reopened or reconsidered in the absence of new evidence or a clear proposal to depart from the existing approach and therefore supports continuing to apply the current methodology. (ENA) • If the AER were to contemplate any departure from its established approach to the risk-free rate as part of the 2026 RORI process, stakeholders should be given the opportunity to provide further submissions in advance of the draft RORI. (ENA) 	See section 9.2.1

Summary of submissions on equity beta

Theme	Summary of submissions	AER consideration
Use of international data	<ul style="list-style-type: none"> • Positions on international data: <ul style="list-style-type: none"> ○ Support adopting international firms. (ENA, Ausgrid, AusNet Services, Endeavour Energy, Energy Queensland, Transgrid, JEC and APG). 	See section 6.2

	<ul style="list-style-type: none"> ○ Support adopting a limited sample of 3 international firms: Vector (NZ), National Grid (UK) and Hydro One (Canada). (ECA) ○ Support using international firms only as cross-checks. (CRG) ○ Do not support using international data. (IEEFA) ● Reasons for adopting international data: <ul style="list-style-type: none"> ○ Domestic data is insufficient and/or outdated, with 8 of the 9 firms having been delisted. (ENA, Ausgrid, AusNet Services, Endeavour Energy, Energy Queensland, Transgrid, JEC and APG) ○ Other regulators have used international data. (ENA, Ausgrid, Energy Queensland, and Transgrid) ○ Difference in observed beta and gearing between domestic and international firms are not significant, because there is significant variance within domestic data on both measures. (ENA) ○ Index composition differences should not be of concern, because Australia’s own index composition has changed over time. (ENA) ● Reasons against adopting international data: <ul style="list-style-type: none"> ○ There are fundamental differences between domestic and international firms. (CRG and IEEFA) ○ There is an observed difference between the betas of domestic and international firms. (ECA) 	
<p>Use of international firms in the comparator set</p>	<ul style="list-style-type: none"> ● Agree with AER’s proposed filters, but not Partington’s additional filters. (ENA, AusNet Services, and Endeavour Energy) ● Suggested additional filters. (Transgrid) ● Any tests or processes that might be used to exclude international comparators should also be applied to the domestic comparator set. (ENA) ● Differences between Australian and international firms should be carefully and transparently addressed, sensitivity analysis should be used. (Transgrid) ● Do not support using international CAPM or adjusting for differences in market composition. (ENA, AusNet, Endeavour Energy and Transgrid) 	<p>See section 6.2.2</p>

<p>Treatment of gearing and debt beta</p>	<ul style="list-style-type: none"> • Support de-levering and re-levering to 60% benchmark gearing. (ENA (supported by its consultant, Frontier), Ausgrid and Endeavour Energy) • Supports using debt beta. (Transgrid) • Supports a value of 0.125 for debt beta. (ECA (supported by its consultant, EMAS)) • Supports a value of 0.1 or less for debt beta. (ENA (supported by its consultant, Frontier)) 	<p>See section 6.2.2.2</p>
<p>Networks return and regulatory risk exposure</p>	<ul style="list-style-type: none"> • Networks enjoy significant regulatory protection that limits its systematic risk exposure. (ECA (supported by its consultant, EMAS) and CRG) • Networks have earned return on capital more than that provided under the regulatory framework, which justifies a reduction in the value of beta within the limited scope of the 2026 RORI. (ECA (supported by its consultant, EMAS) and CRG) 	<p>See section 6.3.1 and 6.3.2</p>
<p>Greenfield risk</p>	<ul style="list-style-type: none"> • Greenfield projects carry materially higher, more systematic risk than brownfield projects due to scale, complexity, limited existing assets, and operational history, often correlating with macroeconomic factors, and therefore deserve a higher equity beta. (Transgrid) • Precedents from FERC (US) and Ofgem (UK) recognise elevated risks for large greenfield transmission projects and allow higher returns on equity than for brownfield projects. (Transgrid) 	<p>See section 6.3.4</p>
<p>Other consideration relevant to equity beta</p>	<ul style="list-style-type: none"> • Support the ongoing use of the longest period estimates because long term data is more stable (CRG and ENA) • Supports a single beta value for electricity and gas. (CRG) 	<p>See sections 6.2.3.5 and 6.3.2</p>
<p>Appropriate value of equity beta</p>	<ul style="list-style-type: none"> • Beta should be reduced to 0.5 or below, in line with the estimates of the majority regulated firms. (ECA, ECA (supported by its consultant, EMAS), CRG, ACROSS, IEEFA and JEC) • Current beta of 0.6 is materially lower compared to other regulators. (ENA, Marinus Link, and APG) • Beta should be in the range of 0.6 to 0.8, with a mid-point of 0.7, based on a combined sample of domestic and 	<p>See section 0</p>

	international firms. (ENA (supported by its consultant, Frontier))	
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Summary of submissions on cross-checks

Theme	Summary of submissions	AER consideration
Financeability test	<ul style="list-style-type: none"> Proposes inclusion of a financeability test, based on the AER's Financeability Guideline to assess consistency with the assumed BBB+ credit rating, referring to analysis commissioned by ENA from HoustonKemp suggesting allowances may not consistently support that rating, while not advocating mechanical application of the test. (ENA) Support the use of financeability tests as a cross-check to assess the performance of the RORI framework. (Ausgrid and Endeavour Energy) 	See section 14.2.2
Network outperformance	<ul style="list-style-type: none"> The current framework remains upwardly biased, with network service providers earning returns above AER benchmarks, particularly in relation to the return on equity. (CRG, ACOSS, JEC and IEEFA) 	See section 14.2.3

Glossary

Term	Definition
ABS	Australian Bureau of Statistics
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASX	Australian Securities Exchange
ATO	Australian Tax Office
CAPM	Capital Asset Pricing Model
CESS	Capital expenditure sharing scheme
CGS	Commonwealth Government Securities
CPI	Consumer Price Index
CRG	Consumer Reference Group
DGM	Dividend growth model
ECA	Energy Consumers Australia
EICSI	Energy Infrastructure Credit Spread Index
ENA	Energy Networks Australia
ERAWA	Economic Regulation Authority Western Australia
ERP	Equity risk premium
FFO/net debt	Funds from operations to net debt
HER	Historical excess returns
Instrument (or RORI)	Rate of Return Instrument
ISP	Integrated System Plan
MRP	Market Risk Premium
NEL	National Electricity Law
NEO	National Energy Objective
NER	National Electricity Rules
NGL	National Gas Law
NGO	National Gas Objective

NGR	National Gas Rules
NPV	Net Present Value
NSP	Network service provider
NZCC	New Zealand Commerce Commission
PTRM	Post-tax revenue model
OLS	Ordinary Least Squares
QCA	Queensland Competition Authority
QTC	Queensland Treasury Corporation
RAB	Regulatory asset base
RBA	Reserve Bank of Australia
RFM	Roll-Forward Model
RIN	Regulatory Information Notice
RoRE	Returns on regulated equity
RORI (or Instrument)	Rate of Return Instrument
RPP	Revenue and pricing principles
STA	Simple trailing average
SL CAPM	Sharpe-Lintner Capital Asset Pricing Model
WACC	Weighted average cost of capital
WATMI	Weighted average term to maturity at issuance
WTA	Weighted trailing average