Rate of Return Instrument

Review process paper

March 2025

AUSTRALIAN ENERGY REGULATOR

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1 Introduction

The AER exists to ensure energy consumers are better off, now and in the future. Consumers are at the heart of our work, and we focus on ensuring a secure, reliable and affordable energy future for Australia as it transitions to net zero emissions.

Rate of return

The rate of return an energy network business receives on its regulatory asset base, known as the return on capital, is a key driver of the total amount of revenue the business derives from network revenue determinations made by the AER. We calculate the return on capital by multiplying the rate of return to the value of the regulatory asset base.

The rate of return provides a network business with money to pay interest that accrues on its loans and provide shareholders a return on their equity investment. The estimate of the rate of return is important for promoting efficient prices in the long term interests of consumers. Its estimation can be complex and contentious, and often involves the use of regulatory judgement by the AER to promote an unbiased and balanced assessment. On the one hand, we want to set the rate as low as possible so energy consumers do not pay more than they need to. On the other hand, the rate needs to be sufficiently high to encourage network businesses and investors to continue to operate and invest in energy networks so consumers receive the safe and reliable services they want.

We note the level of the rate of return is very important to both consumers and the energy networks we regulate. We currently regulate around $130 billion in regulated capital to which the regulated rate of return is applied.[1] Therefore, a very small change in the rate of return, or how it is calculated, can have large bill impacts on consumers and large profit impacts on regulated businesses. Principally for these reasons, a process that we are required to follow for the making of a Rate of Return Instrument (RORI or Instrument), as well as its final form and required content, are specified in national energy laws.

Rate of Return Instrument

The AER is the decision-maker for RORI reviews. The RORI specifies how the AER will determine the allowed rate of return on capital invested in regulated electricity and gas networks which commence their regulatory control period during the 4-year period following its release. 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 Explanatory Statement that accompanies the RORI sets out and explains our decision, considering all the evidence before us. The RORI is binding on network businesses and the AER.[2]

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1 AER, *State of the Energy Market 2024*, p.100 and p.229, 7 November 2024.

2 NEL, s. 18H; NGL, s. 30C.

Rate of Return Instrument reviews

In February 2023, we made the 2022 RORI following an extensive process of stakeholder engagement. The 2022 RORI evolved from the 2018 RORI which was similarly engagement intensive. Overall, we consider the 2022 RORI is working well, offering a high degree of stability and predictability for stakeholders in order to facilitate sufficient investment in network infrastructure to deliver the services that energy consumers want.

These intended outcomes are supported by a significant uplift in proposed capital investments that we are seeing from network service providers for their upcoming 5-year regulatory control periods. Continuation of a strong and certain investment environment is also supported by recent regulatory changes, such as the *Accommodating financeability in the regulatory framework* rule change. This aims to address challenges that transmission network service providers may have in efficiently raising finance to proceed with actionable Integrated System Plan projects.[3]

As such, we consider the bar for any substantive change to the existing 2022 RORI will be high. The 2022 RORI remains in effect until we make its next iteration – the 2026 RORI.

Building on our extensive knowledge and learnings from previous RORI reviews, we expect the 2026 RORI review will be a more efficient and effective process that is less onerous for all interested parties. We will look at the outcomes that have been promoted by the existing 2022 RORI, what changes have occurred in the investment environment since the previous review as well as their materiality, and the implications for the long term interests of consumers going forward. This paves the way for a focussed review that is centred on the key issues at play given energy market priorities, is mindful of the industry-wide regulatory engagement burden borne by stakeholders, and is delivered in accordance with regulatory requirements.

Purpose of this paper

The 2026 RORI review will formally start in July 2025. As a first step, this paper sets out the high-level review process we will undertake to produce the 2026 RORI, and has been prepared for the information of interested stakeholders. Any general enquiries about this paper can be emailed to: RateOfReturn@aer.gov.au

We will publish a discussion paper in July 2025 where we will set out our positions on what we consider likely to be the key issues for the review, having regard to the outcomes and recommendations from the previous review, including research we have undertaken since then. We expect to make the 2026 RORI in December 2026, applying to our network revenue determinations thereafter. A detailed review timeline is set out in the next section.

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[3] AEMC, *Accommodating financeability in the regulatory framework* rule change, 21 March 2024.

1.1 Review timeline

Key milestones and indicative dates for the 2026 RORI review are presented in Table 1.

Table 1 Key milestones and indicative dates for the 2026 RORI process

Key milestone	Indicative date
2026 RORI review process paper – published (for information)	28 March 2025
2026 RORI discussion paper – publish (submissions invited)	July 2025
Public forum on AER discussion paper	August 2025
Eligible Experts' report – publish (submissions invited)	October 2025
Submissions close on AER discussion paper and Eligible Experts' report	November 2025
Draft 2026 RORI & Explanatory Statement – publish (submissions invited)	**April 2026**
Public forum on draft 2026 RORI	April 2026
Independent Panel's report – publish (for information)	June 2026
Submissions close on draft 2026 RORI & Explanatory Statement	June 2026
Final 2026 RORI & Explanatory Statement – publish	**December 2026**

2 Regulatory framework

The National Electricity Law (NEL)[4] and National Gas Law (NGL) set out the regulatory framework for conducting RORI reviews. This is summarised below.

- The RORI is binding on the AER in relation to the performance or exercise of an AER economic regulatory function or power, and each network service provider / scheme pipeline service provider in relation to a matter relevant to the performance or exercise of an AER economic regulatory function or power.[5]
- The AER must make a RORI stating: for a rate of return on capital, the way to calculate the rate; and for the value of imputation credits, the value or the way to calculate the value. The AER may make a RORI only if satisfied the instrument will, or is most likely to, contribute to the achievement of the national electricity objective / national gas objective to the greatest degree. In making a RORI, the AER must have regard to the revenue and pricing principles, and other information the AER considers appropriate.[6]
- Before publishing a draft RORI, the AER must: establish a Consumer Reference Group; publish a notice on its website inviting persons to make a written submission to the AER about the proposed RORI; and seek concurrent expert opinions or evidence about the proposed RORI.[7]
- The AER must, at least 6 months before making a RORI, publish on its website a draft of the proposed RORI and explanatory information, and a notice inviting persons to make a written submission to the AER about the proposed RORI. The AER must publish submissions made on its website.[8]
- The AER must, as soon as practicable after publishing the draft RORI, establish an Independent Panel to give the AER a written report about the RORI. The AER must publish the report on its website.[9]
- In making a RORI, the AER must also have regard to: the Consumer Reference Group's advice, recommendations or submissions; the Eligible Experts' report that is published before the draft RORI; the Independent Panel's report about the draft RORI; and stakeholder submissions received during the review.[10] (See Chapter 5 of this paper for further information on the Consumer Reference Group, Eligible Experts and Independent Panel.)
- The AER must publish explanatory information for a RORI on its website when the RORI is published.[11]

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

5 NEL, s. 18H; NGL, s. 30C.

6 NEL, s. 18I; NGL, s. 30D.

7 NEL, s. 18M; NGL, s. 30H.

8 NEL, s. 18O; NGL, s. 30J.

9 NEL, s. 18P; NGL, s. 30K.

10 NEL, s. 18L; NGL, s. 30G.

11 NEL, s. 18Q; NGL, s. 30L.

- A RORI commences on the day after it is published on the AER's website, and remains in force until the end of the day it is replaced.[12]
- The AER must review each RORI and make a new RORI to replace the reviewed RORI every 4 years.[13]
- A RORI applies for the purposes of an AER economic regulatory decision made after the commencement of the RORI, and does not affect an AER economic regulatory decision made before the commencement of the RORI.[14] For example, the RORI that is in place when the AER makes a 5-year network revenue determination applies for the entire 5-year regulatory control period even though a new RORI will be published.
- The AER may make one RORI for the purposes of the NEL and the NGL.[15]

12 NEL section 18T; NGL section 30O.

13 NEL section 18U; NGL section 30P.

14 NEL section 18V; NGL section 30Q.

15 NEL section 18W; NGL section 30R.

3 Recap on the 2022 Rate of Return Instrument review

3.1 Priority topics for the 2022 RORI

As the AER moved through the process of developing the 2022 RORI with stakeholders, considerable progress was made in narrowing the issues in contention. Whilst there was broad stakeholder and expert agreement on a majority of issues, different views were maintained on 6 priority topics in the final phase of the review. As a recap for stakeholders, summarised below are those issues and where the AER landed in its final decision on the 2022 RORI.

3.1.1 Weighted trailing average return on debt

Currently, in our network revenue determinations, the calculated rate of return applies to the first year of a 5-year regulatory control period. A different rate of return may apply for the remaining years of the regulatory control period. This is because we update the return on debt component of the rate of return each year to use a 10-year trailing average portfolio return on debt that is rolled-forward each year. A trailing average return on debt is an average of the returns on debt over a historical period.

During the 2022 RORI review, we considered implementing a weighted trailing average approach to account for large capital investments that are expected to be undertaken by network service providers as part of the transition to renewable energy. This is particularly the case in relation to recent and anticipated transmission investment. The weighted trailing average approach puts more weight on the estimated debt return in years where more capital is raised (or forecast to be raised) in calculating the trailing average return on debt. We examined whether a weighted trailing average may better align with the 'net present value equals zero' (NPV=0) condition, and so may better promote efficient investment. However, our analysis identified a number of issues that could mitigate potential benefits provided by a weighted trailing average, while adding significant complexity. A majority of stakeholder submissions to our draft 2022 RORI supported retention of the simple trailing average approach.

For the 2022 RORI we considered it was not sufficiently necessary to make a change from our existing approach. As such, we decided to maintain the 10-year simple trailing average approach with annual updates to determine network service providers' return on debt allowances, as adopted for the 2018 RORI. We continued the transition that had commenced in previous regulatory determinations for network service providers, allowing businesses to complete their 10-year transition period from the previous on-the-day approach to the simple trailing average approach.

3.1.2 Equity beta

Equity beta (beta) is a key parameter within the Australian domestic Sharpe-Lintner Capital Asset Pricing Model (SLCAPM) that we use to estimate the return on equity. It measures a firm's exposure to systematic risk compared with that of the market. Systematic risk of an asset is the risk that the asset contributes to a fully diversified portfolio and cannot be reduced through portfolio diversification. Under the assumptions of the SLCAPM, investors are only provided compensation for bearing systematic risk because it is costless to diversify away all other risk (and so require no compensation for bearing it).

Our value for beta is primarily informed by the beta estimates of the existing Australian comparator set of 9 firms. We also use international firms' beta estimates, which we consider to be less relevant than Australian estimates, as a cross-check.

Some stakeholders consider that data from international energy firms may contain useful information. In our 2018 RORI review, we reported beta estimates of a group of international energy firms, which was used as a cross-check only. We have continued to update these firms' beta estimates in our rate of return annual update since then to inform stakeholders' consideration and our own analysis of this matter.

Our approach to date has been to place most weight on estimates using the longest data period available, while also being informed by beta estimates calculated using the recent 5 years of data. After considering the available data and its strengths and weaknesses, we considered that a case for a change in beta had not been established for the 2022 RORI. As a result, we adopted the same overall approach to estimating equity beta as we did for the 2018 RORI and the same value of 0.6 for equity beta.

An ongoing issue in this space is the diminishing number of the Australian comparator firms we use for estimating beta. Due to market de-listings arising from takeovers, this has declined from 3 firms at the time of the 2018 RORI review to 1 firm at the time of the 2022 RORI review. At the same time, there are complexities around developing an approach that incorporates international firms as comparators. Such firms have different characteristics and operating, market and regulatory environments compared to Australian energy network businesses. For the 2022 RORI, the Independent Panel supported our overall approach, including our reasoning and exercise of judgement.

3.1.3 Term of the return on equity

This topic came to our attention in 2020 during our review of how inflation should be incorporated into our regulatory framework. Before our review, we estimated expected inflation based on a 10-year term. During the review, we came to the view that it would be more consistent to employ a term for inflation that matched the length of the regulatory period (typically 5 years). At the time, we did not express a concluded view on whether we should also employ a shorter term in other parts of our regulatory framework – in particular, for our estimate of the return on equity.

In the process of developing the 2022 RORI, we looked at the appropriate term for the return on equity. After extensive consultation and consideration, our view was that the question of the term of return on equity must be settled through the exercise of regulatory judgement. We had seen cogent cases made for employing a term that matches the length of the regulatory period and a term of 10 years, consistent with our current practice. We decided to maintain our 2018 RORI approach of using a 10-year term for the return on equity. At the time, we were not satisfied there was a sufficiently strong case for changing the approach from our 2018 RORI, but acknowledged that the balance could shift in future reviews.

3.1.4 Market risk premium

Our regulatory task in estimating the market risk premium (MRP) to use in the domestic SLCAPM, is to estimate the risk premium required by investors over the return on the risk-free asset to invest in a fully diversified Australian market portfolio. When the MRP is added to the risk-free rate of return, this will give an estimate of the opportunity cost of investing in an investment with the same systematic risk as a fully diversified Australian equities market portfolio (or a 'market' portfolio with a beta of 1, by definition). In estimating the MRP, and then applying the MRP in the RORI, the risk-free rate we use is equal to the yield to maturity on Australian Government Securities with a term to maturity of 10 years.

The MRP we estimate is multiplied by our estimate of equity beta to give an estimate of the equity risk premium required to invest in the equity of the businesses we regulate, assuming a 40% equity to 60% debt capital structure. This equity risk premium is then added to an estimate of the risk-free return to determine the allowed return on equity. This allowed return should reflect the opportunity cost of this equity investment given its level of systematic (or non-diversifiable) risk.

In estimating the MRP, we reviewed various sources of evidence and noted the evidence before us was incomplete and some pieces of evidence had greater explanatory power than others. Therefore, we exercised judgment to determine the value of the MRP. Our decision was to set an MRP of 6.2% per annum.

3.1.5 Use of our industry debt index

We developed the Energy Infrastructure Credit Spread Index (EICSI) in 2018 with assistance from Chairmont using actual debt issuance data obtained from regulated network service providers. It reports a rolling 12-month historical average of credit spreads across all new debt instruments issued by privately-owned network service providers, and provides an indication of the cost of debt issued by network service providers to compare with our estimate of the cost of debt.

After reviewing our draft 2022 RORI, the Independent Panel to the review recommended that the AER should consider using the EICSI as the primary source of data relating to credit spreads, and that the current third-party yield curve approach be used as the cross-check. After undertaking further analysis using updated data and reviewing each of our debt models, we were satisfied that our current approach of using third-party yield curve data gave an unbiased outcome and we would not be making an adjustment to our benchmark approach. As a result, our 2022 RORI final decision was to maintain the approach used in the 2018 RORI and in our draft 2022 RORI decision of using the EICSI as a sense-check on our benchmark return on debt.

3.1.6 Role of cross-checks in determining the rate of return

During the 2022 RORI review, we explored a range of measures that might provide some insight into the suitability of our overall rate of return. All measures have some limitations but, collectively, may provide a sense-check of our overall outcome. We considered regulatory asset base multiples[16], financeability tests[17], scenario testing[18], historical profitability[19], investment trends[20], and rate of return approaches by other regulators and practitioners[21]. Our decision was to adopt cross-checks as a sense-check of our overall outcome, rather than approach them in a formulaic way.

16 A measure of the value of the firm compared with the regulatory asset base.

17 These tests aim to assess whether a business can raise debt capital at a given credit rating.

18 An approach for observing rate of return outcomes in different states of the world.

19 Over the past few years, the AER has been expanding our reporting of historical profitability measures in our annual network performance reports.

20 Investment trends can provide some indication of the rate of return because an allowed rate of return that is too high (low) may encourage (discourage) inefficient (efficient) over-investment (investment).

21 A review of rate of return approaches can provide an indication of the required rate of return because: other regulators also set the rate of return for regulated businesses; discount rates used by market analysts and valuation reports may indicate the rate of return expected by investors; and discount rates used by statutory bodies may provide an indication of the rate of return expected by investors (depending on the purpose of the discount rates used).

4 Approach to the 2026 Rate of Return Instrument review

4.1 A less onerous approach

We will take a less onerous approach to the 2026 RORI review compared to previous RORI reviews. Our approach builds on our extensive knowledge and learnings from previous RORI reviews and meets regulatory requirements for the conduct of such a review. This practical approach will deliver an outcome that is no less robust than previous reviews and is to be expected as successive RORIs are refined and mature over time. As a result, we expect the 2026 RORI review will be a more efficient and effective process for all interested parties.

Following the release of this process paper, we will publish an AER discussion paper in July 2025 to formally start the 2026 RORI review. The discussion paper will set out our positions on what we envisage will likely be the focus issues for the review, having regard to the outcomes and recommendations from the previous review, including research we have undertaken since then. Stakeholders will then be able to consider and engage with these initial positions and also let us know if any other areas need to be considered during the review.

The previous chapter set out the 6 priority topics in the final phase of the 2022 RORI review and how they were dealt with at the conclusion of the review. Since then, and overall, we consider the 2022 RORI has been working well, offering a high degree of stability and predictability for stakeholders in order to facilitate sufficient investment in network infrastructure to deliver the services that energy consumers want. It is derived from detailed research on rate of return subject matter that has been subject to intensive public debate and scrutiny. These past learnings are important to the shape and refinement of any future RORI. Accordingly, a high bar for change will likely apply for any substantive changes to the existing RORI for its 2026 iteration.

Given the recommendations of the previous Independent Panel, the large capital investments that are likely to be required to transition the economy to renewable energy, as well as stakeholder interest to date, we envisage the focus for the 2026 RORI review will likely be on the following two issues.

- The methodology involved for moving away from a simple trailing average to a weighted trailing average approach to the return on debt in certain circumstances.
- Research into the equity beta, particularly given the reduction in the number of listed Australian comparator firms in recent times and the appropriateness of using international comparator firms to inform our work going forward.

At the end of the 2026 RORI review process, after considering all the evidence before us, the AER will decide on whether a case for change has been made.

Previous RORI reviews have been lengthy, involving several rounds of consultation and sometimes reconsidering previously settled positions and unduly adding pressure to an already tight review timeline. In undertaking the 2026 RORI review, we will be mindful of the industry-wide regulatory engagement burden borne by stakeholders.

Stakeholder consultation is key for every RORI review. We will aim to complete some of the key milestones sooner, giving stakeholders an earlier look at the RORI as it takes shape, enabling stakeholders the opportunity to form more definitive views on key issues before making submissions.

We will be open-minded, flexible and transparent in our approach as we progress our review. For example, we may schedule additional public forums and stakeholder meetings, as necessary, to discuss matters that are relevant to our considerations.

The next chapter provides background information on the 3 key advisory and expert panels that will be used to inform our 2026 RORI review.

5 Advisory and expert panels

5.1 Consumer Reference Group

The role of the Consumer Reference Group (CRG) is to help the AER implement an effective consumer consultation process for making the proposed RORI.

The Consumer Reference Group may carry out its activities, including giving advice or recommendations to the AER about the RORI, in the way it considers appropriate. The Group may consult with consumers of electricity and gas, facilitate consumer engagement in the process for making the RORI, and make written submissions to the AER about the content of the RORI and the process for making it. The AER must publish on its website any written advice, recommendations, or submissions given to it by the Group.

The Consumer Reference Group for the 2026 RORI review is expected to consist of between 3 to 5 members. We expect one of these members to be a representative from Energy Consumers Australia. We will likely seek to form a Group which blends experience from several fields, such as: consumer advocacy, insight and engagement; regulatory decision-making; knowledge of the energy sector or other utilities; and financial and economic analysis. We will work with the Group to build their skills and capabilities in areas relevant to the rate of return.

We will commence the process of seeking expressions of interest and appointing the Consumer Reference Group after publishing this process paper, but before publishing a draft RORI.

5.2 Eligible Experts

Eligible Experts are persons with qualifications or experience in a field the AER considers relevant to making a RORI, such as: finance; economics; law; consumer affairs; and institutional investment.

Before publishing a draft RORI, the AER must seek concurrent expert opinions or evidence about the proposed RORI. The AER may seek the expert opinions or evidence in the way it considers appropriate. Accordingly, we will publish an AER discussion paper in July 2025 and an Eligible Experts' report in October 2025, and invite stakeholder submissions on both papers by November 2025. In turn, the Eligible Experts' report and stakeholders' submissions will inform our considerations for the draft 2026 RORI that follows.

The AER must call for nominations of Eligible Experts, but may seek the expert opinions or evidence from any Eligible Expert. If practicable, the AER must seek the expert opinions or evidence from at least 3 Eligible Experts.[22] We will commence the process of seeking expressions of interest and appointing Eligible Experts after publishing this process paper, but before publishing a draft RORI. We expect to appoint 3 to 5 Eligible Experts for the 2026 RORI review.

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[22] NEL section 18M; NGL section 30H.

5.3 Independent Panel

The AER must, as soon as practicable after publishing the draft RORI, establish an Independent Panel to give the AER a written report about the RORI. The Panel is set up to provide an independent review of the draft RORI and report to the AER on its findings.

The Independent Panel's report must include the Panel's assessment of the evidence and reasons supporting the rate of return on capital or the value of imputation credits under the RORI, and state whether the report is given by consensus. The Panel may carry out its activities in the way it considers appropriate, but must seek to give the report by consensus. The Panel must give the report to the AER before the AER makes the RORI. The AER must publish the report on its website.

The Independent Panel must consist of at least 3 members, appointed by the AER, who have qualifications or experience in a field the AER considers relevant to making a RORI, such as: finance, economics, law, consumer affairs, institutional investment. The AER must also take reasonable steps to minimise and manage any conflicts of interest a Panel member may have in relation to making the RORI. We expect to appoint 3 members to the Panel for the 2026 RORI review.

The role of the Independent Panel is not to act as a second decision-maker. Rather, it is to test that the AER has exercised its regulatory judgement appropriately. The Panel will check we have undertaken an effective review process, engaged with the material before us with an open mind, and reached a decision that is supported by our stated reasons and the information available to us.

In the 2022 RORI review, we asked the Independent Panel to consider two questions:

- In the Panel's view, is the draft RORI supported by evidence and reasons, taking into account competing factors such as accuracy, consistency, accessibility and transparency?
- In the Panel's view, is the draft RORI likely to contribute to the achievement of the national electricity objective and national gas objective?

While we are yet to finalise the questions we will ask the Independent Panel to advise on for the 2026 RORI review, the above questions are indicative of what may be asked. The Panel will run from the publication of the draft 2026 RORI until their report is published approximately 6 weeks later.

Glossary

Term	Definition
AER	Australian Energy Regulator
CRG	Consumer Reference Group
EICSI	Energy Infrastructure Credit Spread Index
Instrument (or RORI)	Rate of Return Instrument
MRP	Market risk premium
NEL	National Electricity Law
NGL	National Gas Law
NPV	Net present value
RORI (or Instrument)	Rate of Return Instrument
SLCAPM	Sharpe-Lintner Capital Asset Pricing Model