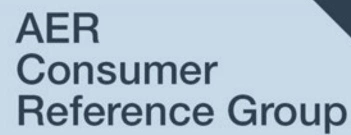

Advice to the Australian Energy Regulator on the Term of the Rate of Return

CRG Response to the AER's Draft Working Paper on the Term of the Rate of Return

2 July 2021

Executive summary

The Consumer Reference Group (CRG) thanks the Australian Energy Regulator (AER) for the opportunity to respond to the two Draft Working Papers published in May 2021, namely:

- *Rate of return -Term of the rate of return, Draft working paper May 2021*(12345467.1) (***Term paper***); and
- *Rate of return and cashflows in a low interest rate environment, Draft working paper May 2021* (***LIRE paper***)

We understand that the purpose of the AER's working papers is to consider technical aspects of the rate of return and to thereby narrow the focus of work ahead of the active phase of the 2022 Rate of Return Instrument (RoRI) development.

This advice pertains to the AER's ***Term paper***.

Overview of the draft *Term paper*

The draft *Term paper* considers:

- Whether the term between equity, debt and expected inflation needs to align
- A suitable term for the rate of return:
    - Term of the return on equity (return on equity)
    - Term of the return on debt (debt)

The AER concludes:

- The terms do not need to align
- Reducing the term of the risk-free rate component of return on equity from 10 years to 5 years best satisfies the NPV=0 principle and the 'regulatory task'
- The term of the debt, namely the 10-year trailing average should be retained, although there may be special circumstances where this is not appropriate
- The AER is continuing to consider whether adjustments could be made to other aspects of the Debt in line with the observed practices of the networks

CRG's principal observations

The CRG's principal observations with respect to the *Term paper* are:

- The AER has suggested significant changes to the estimation of the return on equity. The CRG advises if there is a significant change to the approach, then this change must be supported by a substantial body of evidence and any change must also be based on good regulatory practice and consumer feedback.

- The CRG does not agree with the AER's statement that individual rate of return parameters, such as 'term', can be determined on a 'stand- alone' basis. Any changes to the term of the risk-free rate (in the return on equity SL-CAPM model) must also include an assessment of the impact on other equity parameters, such as equity beta and the market risk premium.
- Confidence is essential to the efficient operation and use of energy as set out in the energy objectives. Findings from the CRG's consumer engagement activities and research, support consumer endorsement of this principle as consistent with good regulatory practice.
- The CRG concludes at this stage, the AER has not provided sufficient evidence of the need for such a change and the impact of such a change on consumer prices and services.

Specific elements of the CRG's advice to the AER are summarised below, followed by our recommendations for the AER.

CRG's preliminary advice

Our preliminary advice to the AER is as follows:

Term of the risk-free rate in the return on equity

- The 10-year risk free rate has been an established and strongly defended component of the AER's rate of return decisions for more than a decade.
- The underlying regulatory concept was that the 10-year risk free rate was most appropriate given the long life of the regulated assets.
- Regulators and experts have favoured many different approaches, and there is no unified view of the 'correct' approach.
- To change this long-standing and widely adopted approach, the AER has an onus to provide substantial evidence that it has:
    - Established the theoretical foundations for its proposed changes
    - Demonstrated its theoretical objective can be achieved in practice
    - Identified the 'real world' circumstances necessitating its proposed change
    - Considered the 'real world' impact of its proposed change on consumers

The *Term paper* does not adequately address the first of these requirements and provides **no analysis or commentary** on the other three requirements.

- In making such a change, the AER should also consider the CRG's principles. These principles reflect regulatory practices that underpin consumer confidence in regulatory processes and outcomes. The CRG developed these principles to complement the NEO/NGO, and has tested them with consumers, who indicate strong support for them.
- The CRG's engagement with consumer advocates supports the CRG's position on this matter.

The AER also states that the Term of the Rate of Return working paper *"covers a relatively 'stand-alone' overarching topic that will feed into these later papers"*.[1]

- The CRG considers the AER's approach to the term of the rate of return is overly simplistic.
- The AER has expressed a preference to change the term without considering the relationship between the term of the risk-free rate and how it will estimate the other SL-CAPM parameters, namely the equity beta and the MRP.

Term of the return on debt

- The CRG supports the AER's conclusion that it is appropriate to continue applying the 10-year trailing average for the cost of debt.
- We note in Lally's advice, referenced in the *Term paper*, that continuing with the 10-year trailing average is feasible for businesses to implement and would lead to only small divergence from the NPV=0 test.
- We consider that any change to the 10-year trailing average, particularly as the existing transition process is not yet fully implemented, would be complex and likely to disadvantage consumers.
- Consistent with the CRG's principle, the trailing average approach is transparent. A trailing average approach would also lower cashflow and price volatility for businesses and consumers respectively.
- The CRG also supports the AER continuing to consider ways in which it can incorporate its analysis of observed debt practices and average debt term of the network businesses.
- Before the AER makes such a change, the AER must thoroughly assess the consequences for debt management practices of introducing an element of 'revealed cost' regulation into a trailing average approach for determining the allowed Debt. The former provides incentives for networks to outperform the AER's assumptions, the latter provides incentives to match the AER's debt profile assumptions. It is not immediately obvious how these two incentives can co-exist.
- We confirm that the AER should make some adjustment to reflect the evidence from this analysis, although it must:
    - Maintain the integrity of the 10-year trailing average
    - Explicitly compensate consumers if they are disadvantaged by the change
    - Reconcile the application of the historical trailing average

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[1] AER, *Term paper* (May 2021), p 10.

- The AER has also indicated that the trailing average Debt may not be appropriate in all instances, citing for example existing businesses with future capital assets that would make up a significant proportion of their RAB or following the sale of a significant asset(s)
    - The CRG acknowledges there are exceptional circumstances in which a trailing average Debt may be sub-optimal.
    - To avoid consumer and investor confusion, special interest pleading, and asymmetric treatment of risk, the CRG advises the AER to consult on and put in place methodologies for dealing with these circumstances in advance.

Summary of CRG recommendations

Recommendation 1	Before proceeding to a final decision on whether it applies the NPV=0 principle over the term of each regulatory period (as it is proposing), the AER needs to establish the following: 1. the proposal has an accepted and tested theoretical foundation 2. the proposal can be and has been applied effectively and efficiently in practice 3. there are compelling circumstances which require applying NPV=0 over the term of each regulatory period 4. the consequences of the proposal for consumers The AER is also urged to consult on the prior question: • What is the 'regulatory task'?
Recommendation 2	As part of this RoRI review, the AER should: • explain how it will ensure inefficient debt management practices do not become embedded in a trailing average approach for the allowed Debt • propose a framework for monitoring and publicly reporting on whether networks are adopting risk management practices that will expose them to rising debt costs • propose a framework for dealing with the exceptional circumstances where a trailing average approach may not be appropriate
Recommendation 3	The AER should engage with consumers' concerns about the terms for the rate of return and inflationary expectations, and acknowledge where those concerns have been previously misrepresented.

Recommendation 4	Should the AER not proceed with its proposal to shorten the term for the return on equity, it will need to revisit its earlier decision, shortening the term for inflationary expectations, in order to avoid irrationally applying the regulatory framework.
Recommendation 5	The AER should: • define and consult on the evidentiary thresholds that need to be satisfied before it considers changing the terms for the rate of return and inflationary expectations • having established those thresholds, demonstrate that its proposed change to the estimation terms clearly satisfies those thresholds

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1 Introduction

The Australian Energy Regulator (AER) established the Consumer Reference Group (CRG) in mid-2020 to provide a consumer perspective during the review of its Rate of Return Instrument (RoRI) and the Review of Regulatory Treatment of Inflation.[2] The CRG is established under legislation. In this sense, the CRG does not participate in the review process as an advocate *for* consumers' interests, but rather as an adviser ***of*** consumers' interests – and how the AER can address those interests in exercising its regulatory functions.

Accordingly, our recommendations in this submission reflect the CRG's role as an adviser to the AER.

In May 2021, the AER released two working papers. This submission responds to the AER's working paper on the *Term of the Rate of Return* (***Term paper***).[3] In the *Term paper*, the AER outlines an *"evolution in [its] thinking"* about its *"regulatory task"*. The *Term paper* explains how the AER now views its regulatory task as satisfying the NPV=0 condition in each regulatory period. This contrasts with its past approach whereby it sought to satisfy this condition across the life of long-lived investments in network infrastructure.

Following its inception in 2020, the CRG established five principles for assessing AER regulatory proposals. The CRG has repeatedly referenced these principles in its submissions and consequently they should be well-known to the AER. The CRG has also recently validated these with consumers. The CRG recognises the AER is not bound by the CRG's principles, however, the CRG's principles support the AER's legislative obligations which give effect to the National Electricity/Gas Law. [4]

The CRG therefore considers these principles will assist the AER in meeting its primary objective of making a decision for the long-term interests of consumers. On this basis, there is nothing preventing the AER from taking into account the CRG's five principles when it is developing regulatory proposals. Doing so, would ensure the AER adequately addresses consumers' interests in its decision making.

However, the *Term paper* fails to address all five of the CRG's principles.

The AER hosted a public forum on 15 June 2021 to present and discuss its *Term paper*. Along with other representatives, the CRG outlined its preliminary response to the AER's proposal.[5] This submission further explains the CRG's response to the *Term paper*, which leads to five

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[2] AER, *Final Position. Regulatory treatment of inflation* (December 2020)

[3] AER, *Term paper* (May 2021)

[4] *National Electricity (South Australia) (New National Electricity Law) Amendment Act 2005*. South Australia (2005)

[5] CRG, Presentation to public forum on the term of the rate of review (June 2021)

recommendations to the AER. These recommendations describe the further work required for consumers to have confidence that the AER is acting for their interests, as required by the governing legislation.

This submission responds to the *Term paper* as follows:

- Section 2 outlines the CRG's role and its five principles for promoting consumers' interests during the RoRI review.
- Section 3 demonstrates the *Term paper* fails to explain the cause or case for the proposed changes to the term for the return on equity. The discussion is framed around four questions to the AER. The CRG suggests rigorous answers to each of these questions would assist consumers to feel confident the AER's proposed changes are necessary and justified.
- Section 4 discusses return on debt (Debt) and treatment of inflationary expectations. The CRG broadly supports the AER's proposed approach to the Debt (subject to further detail), but is seeking further measures to safeguard consumer interests. The rest of this section reflects on the interaction between the proposal in the *Term paper* and the AER's final position paper (December 2020) on the regulatory treatment of inflation.
- Section 5 provides an overview of the key themes to emerge from the 9 June 2021 CRG-hosted workshop, demonstrating support for the arguments in this submission.
- Section 6 concludes the submission, emphasising the CRG's 'high bar for change' principle has not been met as the AER has not established a threshold for change in its *Term paper*. Therefore, it has not demonstrated the case for change has been satisfied.

This submission does not advocate for or against changes to the term of the rate of return. Rather, the *Term paper* fails to provide a critical assessment of reasons for any proposed change. Without any evidence from the AER that it has undertaken a critical assessment, consumers and other stakeholders cannot genuinely assess the merits of the AER's proposed changes. Further, it would not be responsible for the AER to proceed with the proposal outlined in the *Term paper* until such matters are resolved.

The CRG looks forward to working with the AER and other stakeholders in addressing concerns with the AER's *Term paper*, which we have raised in this submission.

2 About the CRG and its role

2.1 Overview

In June 2020, the AER appointed the Consumer Reference Group (CRG).[6] The CRG's role is set out in the *National Electricity Law* (NEL) and *National Gas Law* (NGL) which states the CRG may:[7]

- Consult with consumers of electricity and gas;
- Facilitate consumer engagement in the process for making the instrument; and
- Make written submissions to the AER about the content and the process for making the rate of return instrument.

The CRG's legislative status suggests it is not just another AER stakeholder, nor is it a competitor with, or substitute for, consumer advocates or Energy Consumers Australia.

The CRG recognises the AER must exercise its judgement according to the law. However, the CRG considers its advice on particular matters has implicit value. Most notably, when the CRG's advice indicates the sort of analysis required to give consumers confidence in regulatory outcomes, the AER should accept that a decision *not* to follow this advice potentially harms consumer confidence in the regulatory process.

Since June 2020, the CRG has responded to each of the AER's papers by making submissions and presenting at public forums. Our advice to the AER has been informed by interviews with consumer advocates. Our current advice also reflects the feedback we have received from consumer advocates through a workshop and by a survey of residential and commercial consumers.

2.2 CRG principles

The CRG established its five principles to guide its advice to the AER.[8] They are:

- Principle 1 – A regulatory framework serving the long-term interests of consumers must promote behaviours that engender consumer confidence in the framework.
- Principle 2 – Any change to the regulatory model must be tested against detrimental consumer impacts in relation to absolute prices and price changes.
- Principle 3 – Any change to the regulatory model must be tested against acceptable consumer impacts in relation to service standards.

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6 For more information on the CRG and its members see CRG, *Fact sheet* (September 2020)

7 NEL, Part 3, Div 1B, Sub Div 3, clause 18N(2); NGL, Chapt2, Part 1, Div1A, SubDiv3, rule 30I (2005)

8 CRG, *Submission to AER – return on Equity* (October 2020), p 21

- Principle 4 – Risks should be borne by the party best placed to manage them.
- Principle 5 – There should be a high bar for change.

On 15 June 2021, the CRG presented its preliminary response to the AER's working paper on the term of the rate of return at a public forum hosted by the AER.[9] The presentation is available on the AER's website.[10] This submission expands on that presentation.

2.3 The energy objectives (NEO/NGO) and the CRG's principles

The CRG's five principles neither compete with, nor seek to displace, the energy laws and rules. However, the laws make clear that the efficiency objective includes both efficient investment in *and* the efficient operation and use of electricity/gas and these represent two distinct requirements for the AER to consider.

In our view, the AER continues to treat the second part of the energy objectives as redundant by simply asserting its equivalence with the first part. The AER's working papers focus on promoting investment efficiency, apparently assuming that this will also achieve consumption efficiency. This is a simplistic assumption and ignores consumers' behavioural responses to the regulatory framework, and changes to the framework.

We suggest the AER erroneously focuses only on investment efficiency in the *Term paper*, as evidenced in its focus on the NPV=0 test. By focussing on this test, particularly in its review of the return on equity, the AER ignores consumers' potential behavioural responses to the focus on the NPV=0 principle to the exclusion of other considerations.

Consideration of investment efficiency is not relevant to the exclusion of all other considerations, the CRG's five principles are more than just secondary considerations. Any lack of confidence by consumers in the AER's decisions and decision-making processes will influence their expectations of price and services offered by the networks, and consumers' own investment decisions. Confidence stems from stability and predictability, transparency about the impact of decisions on prices and services, and a clear assessment by the AER of the risks that follow from its decisions.

Therefore, it follows, that the CRG's five principles are integral to the AER achieving the second part of its statutory objective, namely the promotion of efficient operation and use of energy for the long-term interests of consumers.

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[9] AER, *Rate of return: Term of the rate of return, Draft working paper* (May 2021)

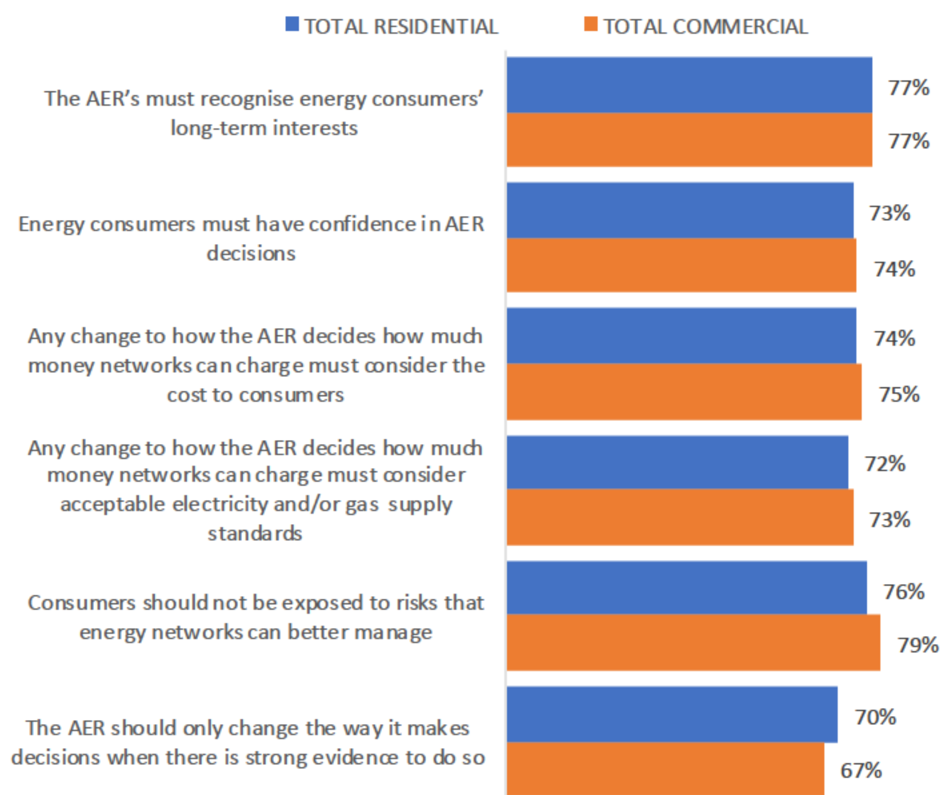
[10] CRG, Presentation to public forum on the term of the rate of review (June 2021)

Accordingly, the CRG proposes that the five principles set out above are the minimum requirements for the AER to engender consumer confidence in regulatory processes and outcomes, particularly when the AER is proposing a change to an established regime.

Importantly, the CRG has tested consumer support for its principles with a representative sample of 1,000 residential consumers and 200 commercial consumers[11] and as shown in the following figure, consumers clearly support these five principles.

The CRG notes with interest the AER's observation that the rating agency Moody, gives a weighting of 15 per cent to the sub-factor of 'stability and predictability of the regulatory regime'.[12] This further highlights that qualitative elements are relevant to the achievement of the NEO/NGO.

Figure 2-1: Energy consumer support for CRG principles



[11] An overview of the CRG's initial Consumer Survey is provided in Appendix B

[12] AER, *LIRE paper* (May 2021), p 36. Also see Appendix D, p 79

3 Return on equity: Is there a case for change?

In this section, the CRG provides an extensive response to the AER's preferred decision its *Draft Term Paper* to change the term of the risk free rate from ten years to five years. This change has potentially significant implications for the AER's estimation of the return on equity; in its own right, and because of the potential impact on the estimation of other parameters in the SL-CAPM model.

Given the importance of the term of the risk free rate, the AER's proposal to change the term of the risk free rate from the long-established 10 years to five years must be supported by clear reasoning and evidence about the overall outcomes for consumers on prices and services. The CRG's advice to the AER is that the AER has not provided such evidence in the *Term paper* and therefore has not made the case for change.

To be clear, the CRG has not come to a final position on the term debate, but we do not believe it is sufficient for the AER to rely solely on a theoretical (but disputed) argument of NPV=0 over the regulatory term. More evidence and consideration of other factors is important to consumers, consistent with the CRG's principles (above), is required.

A more detailed commentary follows.

The *Term paper* repeatedly refers to the AER's *"regulatory task"* but does not provide a single, clear exposition of the meaning of its regulatory task.[13] Across the various references in the *Term paper*, the AER's *"regulatory task"* appears to be framed by three premises, namely, the AER sees its role as involving:

1. *"setting an [ex-ante] efficient rate of return that contributes to achieving the NEO and NGO"*
2. *"satisfying the NPV=0 condition"*

and then:

3. *"setting the allowed revenue requirement for regulated energy businesses for the length of the regulatory period (typically five years) that contributes to achieving the NEO and NGO."*[14]

The *Term paper* appears to collapse these three premises into a conclusion that the AER's regulatory task requires it to satisfy the NPV=0 condition over the term of each regulatory period.

Satisfying an *ex-ante* NPV=0 condition means the regulator allows just enough money to cover all the network's expected financing costs, including a reasonable return to investors on the

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13 AER, *Term paper* (May 2021), pp 4, 5, 32(x4), 38(x2), 39 (x2), 40, 41, 42(x2)

14 AER, *Term paper* (May 2021), p 32, with the *ex-ante* nature of the framework explained on p 34

capital they have invested. The *Term paper* provides the following, more specific definition from Partington and Satchell:[15]

> *"[NPV=0] means that the ex-ante expectation is that over the life of the investment the expected cash flow from the investment meets all the operating expenditure and corporate taxes, repays the capital invested and there is just enough cash flow left over to cover investors' required return on the capital invested."*

This formulation seeks to ensure investors do not make excess 'profits' on their network investments. In other words, NPV=0 means the investment is expected to generate no economic rents. The absence of economic rents is a central feature of an efficient market. It is this trait of efficiency that makes NPV=0 central to the AER satisfying its legislative objective.

The CRG does not contest the three premises of the AER's argument. However, the three premises do not *ipso facto* lead to the AER's conclusion that its *"regulatory task"* requires it to satisfy the NPV=0 condition *in each* regulatory period. There is nothing in the three premises listed above that would preclude continuation of the current approach, whereby the AER seeks to satisfy the NPV=0 condition over the life of long-lived investments.

The *Term paper* does not explain what prompted the AER to re-interpret its regulatory task after almost 20 years. Given the AER's long established regulatory precedent, the CRG contends the onus of proof for a re-interpretation of the regulatory task lies with the AER.

The remainder of this chapter highlights four questions that, if answered rigorously, would support a case for the AER's re-interpretation of its regulatory task.

The four questions attend to:

1. **the theoretical foundations of the AER's alternative approach**
2. **the practical implications of implementing the alternative approach**
3. **the circumstances that necessitate a re-interpretation of the AER's regulatory task**
4. **the consequences of adopting the alternative approach**

Put simply, the CRG, in line with consumers, expect the AER to openly and transparently 'make the case' for change. In fact, the CRG Consumer Survey asked consumers to indicate in their own words (without prompting) the attributes they look for in an organisation they can trust.

[15] AER, *Term paper* (May 2021), p 34

The top two attributes were:

- Honesty and integrity (specifically mentioned by 22 per cent of residential consumers and 13 per cent of commercial consumers)
- Transparency, nothing hidden (specifically mentioned by 20 per cent of residential consumers and 15 per cent of commercial consumers)

Other customers used similar language, such as *"open"*, *"communicative"*, *"fair"* and *"unbiased"*; all terms which embrace these key attributes.

Such standards are consistent with those the AER would uphold when it considers regulatory or investment proposals from its stakeholders. This is apparent from the three ranking tools it adopted and reported on in its *Final Paper on Regulatory Treatment of Inflation*, as follows:[16]

> *"Robustness – An approach is considered robust if it does not change significantly in response to events or data that have little or no influence on market expectations of inflation.*
>
> *Transparency and replicability – An approach that is transparent and replicable can be easily verified by stakeholders, improving regulatory certainty for stakeholders and reducing the risk that errors have been made in the calculation of estimates of inflation expectations for regulatory purposes.*
>
> *Simplicity – A simple approach is likely to produce estimates of expected inflation that require less effort to construct and check (for both the AER and stakeholders). A simpler method may also provide less scope for contention."*

The four questions below refer to the AER's stated intention of shortening the term for the estimation of the risk-free return on equity. This submission addresses the AER's proposed approach for the Debt in Section 4.1.

3.1 Does the AER's proposal have an accepted theoretical foundation?

The *Term paper* refers in various places to an *"evolution in [the AER's] thinking"* about how it satisfies the NEO/NGO.[17] This *"evolution"* reflects its decision to target NPV=0 in each five-year regulatory period rather than its longstanding approach of pursuing NPV=0 over the term of long-lived investments (proxied at 10 years).

The primary sources for the AER's evolved thinking appears to be two papers it commissioned from Dr Martin Lally before this RoRI review commenced.[18]

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16 AER, *Final Position. Regulatory treatment of inflation* (December 2020), p 16

17 AER, *Term paper* (May 2021), pp 3, 5, 32, 37, 42

18 Lally, Martin (Capital Financial Consultants Ltd), *Review of the AER's inflation forecasting methodology* (July 2020); Lally, Martin (Capital Financial Consultants Ltd), *The appropriate term for the allowed cost of capital* (April 2021).

3.1.1 CRG observations

1. The *Term paper* does not critically assess the arguments for and against a re-interpretation of the NPV=0 principle. It recounts past arguments but does not explain what has prompted its re-interpretation

While section 6.3.1 of the *Term paper* reflects on the merits and shortcomings of the appropriate term for estimating the return on equity, the re-interpreted regulatory task is treated as a binding constraint within the assessment – meaning the outcome of the discussion seems to be a foregone conclusion. The self-fulfilling (or circular) nature of the paper's assessment of the term for the return on equity is evidenced by statements such as:

> *"Our task is to set revenue and provide compensation for the length of the regulatory period (typically five years). Matching the term of equity to the length of regulatory period means that we would be providing compensation that reflects the expected return and investors' expectation over the corresponding period. This would be consistent with our regulatory task of setting a rate of return over a regulatory period that will contribute to achieving the NEO and NGO."*[19]

2. The *Term paper* acknowledges the challenges of estimating the rate of return

> *"Estimating the rate of return is difficult and contentious. It requires regulatory judgement to assess the complex and sometimes conflicting evidence; and to engage with finance theory, academic literature and market practice. There is no one 'right answer' to be found."*[20]

Section 3.3 of the *Term paper* provides an account of the AER's regulatory decisions and reviews. This history demonstrates the AER has repeatedly interpreted the NPV=0 principle as applying to returns over the life of long-lived investments. On each occasion a shorter term was contemplated and rejected. The AER's *Final position paper on the regulatory treatment of inflation* in December 2020 broke this consistent approach when, for the first time, the AER elected to base its decision on Lally's advice.[21]

Chapters 4 and 5 of the *Term paper* demonstrate at length that regulators and experts, respectively, are not settled on one interpretation or application of the NPV=0 condition. The discussion also demonstrates no recent or widespread shift in how regulators and experts view the NPV=0 principle, to the extent it remains as contentious as ever.

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19 AER, *Term paper* (May 2021), p 42

20 AER, *Term paper* (May 2021), p 2

21 AER, *Final Position. Regulatory treatment of inflation* (December 2020)

Beyond deciding to accept and act on Lally's advice, the AER has not explained why it has chosen to do so. The unilateral shift (or *"evolution"*) in its thinking is not explained despite the *Term paper* acknowledging:

(i) the contentious nature of such decisions

(ii) the long regulatory precedent it had established; and

(iii) an absence of consensus among regulators and experts.

3. **The *Term paper* (and the *Final position paper on inflation*, December 2020) clearly relies heavily on Lally's views. Lally's views are well-documented and have been well-known to the AER and other regulators over many years and regulatory reviews.**

Given Lally's clear and consistent advocacy for a particular view on the appropriate term for the rate of return, it is not clear why the AER elected to singularly seek his guidance on this matter.[22] In previous draft working papers, the AER provided contrasting expert advice and the CRG considers this more appropriate at the 'draft working paper' stage in the process.

The CRG is not debating whether Lally's advice is right or wrong. Rather, the CRG is deeply concerned that the AER has failed to engage in such a debate or explain its decision to stakeholders.

Conclusion

The theoretical foundations of the regulatory task are not settled. As the *Term paper* highlights, there is a sufficiently broad array of expert opinions and practices among regulators, to support many different interpretations of the NPV=0 principle. It is therefore not surprising that the *Term paper* observes, *"there is no one 'right answer' to be found".*

In such an intellectually contested environment, precedent carries significant weight. This implies the burden of proof lies with the party seeking to break with precedent – even more so when it is the party that has been determined to created that precedent over many years. This is the position in which the AER now finds itself. The *Term paper* does not respond to this responsibility.

3.2 Can the proposal be applied effectively and efficiently?

Even it were possible to set aside the CRG's concerns raised above – which it is not – the AER's proposed approach invites questions about how (and whether) the AER will achieve its

[22] Lally, Martin (Capital Financial Consultants Ltd), *Review of the AER's inflation forecasting methodology* (July 2020); Lally, Martin (Capital Financial Consultants Ltd), *The appropriate term for the allowed cost of capital* (April 2021)

reinterpreted *"regulatory task"*. The AER indirectly references the enormity of this challenge, but does not tackle it in the *Term paper*:[23]

> *"Matching the term of equity to the length of regulatory period means that we would be providing compensation that is consistent with our regulatory task and investors' expectation over the same period."*

As discussed in the CRG's observations below, the difficulties implied in this statement arise from its reference to *"investors' expectation over the same period"*.

3.2.1 CRG observations

1. By defining the *"regulatory task"* as satisfying the NPV=0 principle in each regulatory period, the AER will need to develop methodologies for estimating investors' expected return on equity in each period. This contrasts with the AER's current challenge requiring it to estimate investors' expectations across regulatory periods, that is looking at investors' long-term expectations beyond individual economic and regulatory cycles.

Of course, neither investors' short-term (5-year) nor long-term (10 -year) expectations can be viewed directly. However, the regulator's task has one important difference when estimating these unseen expectations. Given long-term expectations look through present circumstances and individual events, they are likely to be more stable than short-term expectations. This implies more information about investors' long-term expectations will be embedded in historical market observations than for their short-term expectations.

For the main part, the AER has made this argument over the past decade or two to support its reliance on historical data when estimating CAPM inputs such as beta and the MRP. By pursuing NPV=0 in each regulatory period, the AER is diminishing the relevance of historical data and abandoning its previous adherence to these practices.

2. The *Term paper* provides no information about how the AER intends to estimate investors' short-term, forward-looking, expectations about the return on equity they might earn in each regulatory period.

For example, AER could expand on the 2013 *Incenta report* prepared for Energy Networks Australia). This report involved interviews with 14 market practitioners to assess their views on the term of the risk-free rate. The report provided some insights into market practitioners' perspectives and preference for using a 10-year risk-free rate for investment in regulated energy businesses.[24]

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[23] AER, *Term paper* (May 2021), p 39

[24] Incenta, *Term of the risk-free rate for the cost of equity* (June 2013)

Without this information, consumers (and other stakeholders) cannot judge how effectively the AER anticipates it can estimate investors' expectations. Even though the AER's thinking may have evolved around the theoretical foundations of its regulatory task, the AER has not demonstrated that it can deliver its re-interpreted task any more efficiently than the task it has pursued for the past decade or two.

A final decision whether to adopt a shorter term for the return on equity, must consider practical constraints and not just the AER's theoretical ambitions. When viewed holistically, it is unclear which option (short-term or long-term estimate) is roughly right and which option is precisely wrong.[25] As the proponent for re-interpreting its regulatory task, the burden falls on the AER to answer this question.

3. **Investors' short-term, forward-looking, expectations are not directly unobservable *ex-ante* and must be inferred from other data. The accuracy of the AER's estimates will be unverifiable *ex post*. Estimating these expectations is therefore an inherently speculative endeavour.**

Presuming the AER will continue to *"use the standard SL CAPM as the foundation model"*[26] for estimating investors' expected return on equity, suggests it will shift from using 10-year to 5-year Commonwealth Government Securities (CGS) to estimate the risk free rate. As the *Term paper* observes:[27]

> *"The yield curve is typically upward sloping which means a longer-term risk-free rate will lead to higher regulatory cash flows than if a short-term rate is used."*

It is disappointing the *Term paper* does not provide any quantitative information or analysis on how much lower a 5-year risk free rate would be than a 10-year rate. Such information is provided in the *LIRE paper*[28] and is reproduced in Figure 3-1 below. While the two yields generally appear to track in the same direction, the 5-year rate is usually between 0.5 and 1.5 per cent lower. At face value, this suggests a more favourable financial outcome for consumers, though more detailed analysis is warranted about the nature and drivers of the spread.

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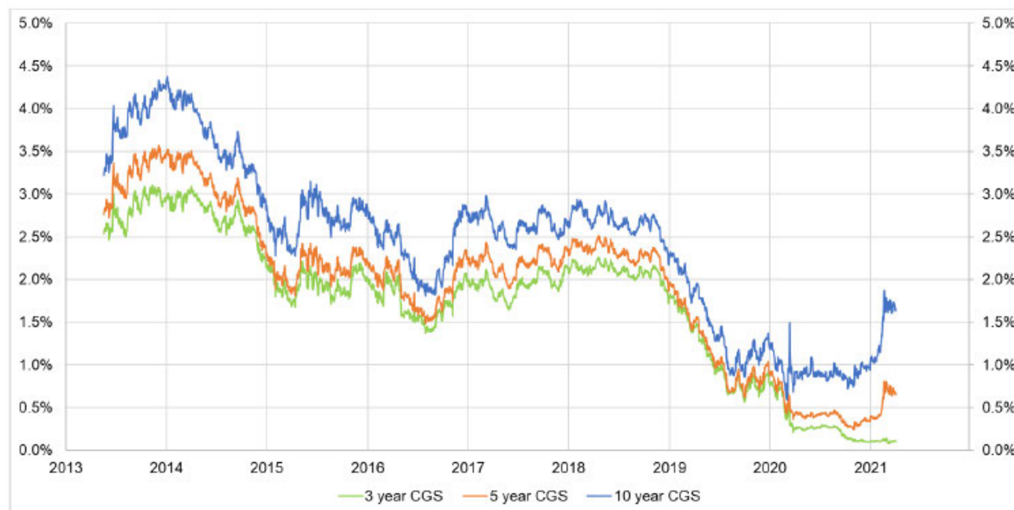
25 Drawing on John Maynerd Keynes' famous aphorism, *"It is better to be roughly right than precisely wrong."*

26 AER, *Final Position. Regulatory treatment of inflation* (December 2020), p 24

27 AER, *Term paper* (May 2021), p 38

28 AER, *LIRE paper* (May 2021)

Figure 3-1 Comparison of yields on Australian Government 3, 5, and 10-year bonds (May 2013 to April 2021)



Source: RBA

What is not clear, nor discussed in either paper, is the impact of shifting to a 5-year forward-looking approach on the other terms in the SL-CAPM that the AER needs to estimate. There is no widely accepted forward-looking methodology for making these estimates and the preferred approach may vary with a change in term.[29] These methodologies will, therefore, need to be agreed over the remaining period of the RoRI review. The CRG is concerned that the selection of these methodologies will be highly contentious and contested – and that such a process will benefit the best resourced and organised stakeholders, namely, networks.

The lack of information in the *Term paper* means it is not possible for consumers or other stakeholders to assess the overall merits of the AER's intention to shift to a 5-year term for estimating the return on equity. Assessing the merits of such a proposal must take into account practical constraints as well as theoretical constraints. Making such an assessment also invites questions about why the AER has not considered the optimal length of the regulatory period given its reinterpreted regulatory task. For example, to avoid the problems of estimating 5-year inputs to the CAPM, why has the AER not considered shifting to a 10-year regulatory period if its primary concern is achieving NPV=0 over the regulatory period?[30]

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[29] For example, changing the term for the risk-free rate may re-open the debate on the appropriate methodology to estimate the relevant MRP such as the weight that should be given to historical data versus forward looking models. Historical data is preferable when predicting longer term (10=year) outcomes, but there will be debate on its use in assessing the MRP when the focus is on 5-year term.

[30] Other risks associated with shifting to a longer regulatory period could potentially be managed through mid-period reviews.

To be clear, the CRG is not advocating for or against a longer regulatory period. It only asks this question to highlight the insufficient information and analysis provided in the *Term paper* about the practical implications of the AER re-interpreting its regulatory task.

3.3 What are the circumstances necessitating the proposal?

The *Term paper*, like various other recent publications from the AER, explains the risks of over- or underestimating the rate of return that investors can earn on their investment in networks.[31] These risks can be summarised as:

1. over or under-investment in network assets
2. distorted consumer prices, leading to inefficient consumer decisions
3. inability to attract funds (if the rate of return is underestimated)

All things being equal, observing any of these outcomes might be expected to serve as a trigger for reviewing the way the rate of return (and the return on equity) is estimated.

3.3.1 CRG observations

The AER (rightly) emphasises avoiding these outcomes in all its RoRI-related publications. Given this emphasis, the *Term paper* conspicuously fails to provide any evidence suggesting these outcomes have been observed – or even, suspected – thus necessitating review of the AER's approach to estimating the return on equity.

Similarly, the *Term paper* provides no evidence of any other form of harm to consumers that would be avoided by altering the term for estimating the return on equity. Conversely, it provides no evidence of additional benefits from adopting a shorter term.

Such evidence is important to consumers if they are to accept changes in the AER's approach. As one representative remarked at the CRG hosted consumer representative workshop on 9 June 2021:[32]

> *"I don't want to sound too cynical here, but I have a belief that it is important that in making decisions like this that evidence is sound and put up front"*

Following the workshop, one attendee wrote to the CRG making the following observation, further confirming that consumers look to the AER to assess evidence from real-world observations:

> *"[If] there were problems with the current approach, new infrastructure such as Marinus Link would not be seeking to be included as regulated links within the national electricity*

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[31] AER, *Term paper* (May 2021), p 2 and pp 32-51

[32] See Appendix C for details

market. You can guarantee if the current approach was not providing owners with a sufficient risk/return trade-off they would be seeking to develop and operate outside the regulated environment. As no evidence was presented then I think we must reinforce the need for the problem to be identified and more importantly receive information as to how the changes will improve consumer outcomes."

Over many years and review cycles, the AER has repeatedly and determinedly insisted on the correctness of its preferred approach based on estimating long-term rates of return – most recently, in its 2018 RoRI review. The AER cannot avoid or ignore the regulatory precedent that it has established by its actions over the past decade or two and the value consumers attach to this precedent.

The CRG maintains that the AER should not be held hostage to precedent, but it is accountable for abandoning a precedent of its own making. The burden of proof for abandoning such a precedent – or the responsibility for acknowledging an error in its previous judgment in these matters – lies solely with the AER. The *Term paper* provides neither proof nor acknowledgement.

To avoid the perception that it is acting whimsically and merely in response to an *"evolution in [its] thinking"*, the AER should demonstrate there is a clear driver (or trigger) necessitating a shorter term for estimating the rate of return. The AER's own publications make it clear what some of these triggers might be, namely (i) to (iii) above. Additional triggers, such as material and relevant changes to data and/or data availability, academic consensus on elements of the rate of return may also be relevant. The drivers for change should be clearly defined *ex-ante*.

3.4 What would be the consequences of the proposal?

The *Term paper* repeatedly explains it is motivated by the AER's obligation to pursue its legislated objective.

"We seek to identify a suitable term for setting an efficient rate of return that contributes to achieving the NEO and NGO."[33]

The NEO and NGO focus on promoting efficient outcomes *"for the long-term interests of consumers"*. The legislation exclusively defines consumer interests in terms of price, quality, safety, reliability and security.[34]

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33 AER, *Term paper* (May 2021), p 3; Similar statements can be found at pp 1, 2, 4, 5 (x2), 12, 15, 32 (x2), 40 & 42

34 The NEO and NGO are defined in the NEL s 7 and NGL s 23, respectively

3.4.1 CRG observations

1. The NEO/NGO make clear that the pursuit of efficiency is not an end in its own right. Pursuit of efficiency is the means to achieve a set of outcomes described in the legislation with reference to price, quality, safety, reliability and security.

The *Term paper* provides no analysis how, or even whether, the AER expects a shift to 5-year estimation terms will improve these outcomes for consumers. The *Term paper* only refers to an improvement in these outcomes at the very highest level of abstraction and inference:

> *"We aim to determine a rate of return … that will provide the appropriate investment incentives that will not lead to over or under investment in assets, and achieve an appropriate balance of sustainable long-term consumer outcomes in respect of price, quality, safety, reliability and security of supply."*[35]

At a minimum, the AER should publish a model that allows consumers to explore how shortening the return on equity term will affect the revenues that networks can expect to collect from consumers, and the prices consumers can expect to pay. Such a model would also assist the CRG in its consultations with consumers and their representatives about the real consequences of the AER's intended approach.

2. Reasonable compensation for risk is a clear driver for how the AER frames its task when determining the rate of return networks can earn on their investments.

The *Term paper* considers that the current approach of applying a 10-year term when estimating the rate of return overcompensates the risk investors take. The paper notes that a generally upward sloping yield curve will overcompensate investors for the risk they are bearing.

> *"Matching the term of equity to the length of the regulatory period means that we would be providing compensation that is consistent with our regulatory task and investors' expectation over the same period. Otherwise, regulated businesses and investors would be over compensated for risks they do not bear when the term of equity exceeds the length of the regulatory period."*[36]

While the CRG might agree with this observation, based on the consistently lower yield on 5-year CGS compared to 10-year CGS, the CRG's concern is with the total return on equity (as noted previously). The *Term paper* does not address the possible impact on other terms in the SL-CAPM model, such that the final position may be the same or even worse for consumers.

Beyond this historical overcompensation for risk, the AER appears to have accepted Lally's view that:

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35 AER, *Term paper* (May 2021), p 32

36 AER, *Term paper* (May 2021), p 39

> *"[the] return on equity can be thought of as a long-term floating rate bond with a coupon that resets at the start of every regulatory period. He advised that the correct discount rate to use would be the five-year rate because that was the length of the regulatory period."*[37]

A 'bond' of this nature appears to have a lower risk profile to the one implied by current regulatory arrangements. While this lower risk is expected to be reflected in the lower applicable risk-free rate (when determining the return on equity), the CRG questions whether this lower risk should also be reflected throughout the rate of return framework – for example, in the credit rating assumed for benchmark debt and the role of beta.

The CRG also observed that the trailing average approach for the cost of debt adopted by the AER in 2013, and the AER's decision in December 2020 to reduce the term for estimating inflationary expectations, also de-risked network investments.[38] Those decisions were also taken without further consideration of the framework-wide implications for the regulatory compensation of risk.

Before confirming its approach to the term of the rate of return, the AER should provide a comprehensive review of how a shorter term would affect the overall treatment of risk in the compensatory arrangements provided by the RoRI.

3. **The *Term paper* – and its proposal to reduce the term of the rate of return– appears to have been prompted by an *"evolution in [the AER's] thinking"*. As outlined in the preceding sections, the paper does not articulate what has prompted this *"evolution"*.**

Absence of this detail leaves consumers (and other stakeholders) to wonder what might prompt a further *"evolution"*, when it might occur, and its consequences.

Before finalising this rate of return decision, the AER should establish a clearly structured framework of triggers and thresholds for future evolutions in its thinking.

It seems inconceivable that altering one of the foundational precepts of the regulatory framework would not have 'real world' consequences. Consumers' confidence in the regulatory framework – as well as their trust in the AER's judgement in these matters – would be supported by the AER fully and openly exploring and assessing the nature and materiality of those consequences.

3.5 Discussion

The AER has charged the CRG to be a voice for energy consumers in the current RoRI review. For consumers to feel confident in the regulatory framework and the AER's administration of it,

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[37] AER, *Term paper* (May 2021), p 40

[38] In addition, regulatory incentive schemes, automatic indexation of the Regulated Asset Base (RAB) and pass-through arrangements also represent a one-way flow of funds by which consumers de-risk networks.

they must also feel confident that the **cause and case for change** are clearly and comprehensively identified.

No clear precipitant for change has been described in the *Term paper* nor in preceding papers. Similarly, there is no acknowledgement that past practices were based on erroneous interpretations of the AER's *"regulatory task"*. If that prior interpretation was indeed erroneous, then the burden of that rate of return has fallen on consumers for almost two decades.

This section has identified four questions that, if answered openly and fully, would make clear to consumers the cause and case for the AER's intended changes.

Perhaps, however, a prior question for the AER as the proponent of change, should be addressed to consumers (and other stakeholders).

- What is the regulatory task?

This question has not been put to stakeholders or consumers. This question has been asked and answered solely by the AER ahead of releasing the *Term paper*. The *Term paper* only asks questions about *how* the AER's self-reinterpreted task might be implemented.

Whether intended or not, this sense of predetermination permeates the *Term paper*. This leaves readers with the impression that the seven questions asked in the *Term paper* are rhetorical in nature only. The CRG therefore urges the AER to systematically engage with stakeholders on the central question: *What is the regulatory task?*

3.6 Recommendation 1

Before proceeding to a final decision on whether it applies the NPV=0 principle over the term of each regulatory period (as it is proposing), the AER is urged to address the following four questions openly and fully.

1. Does the proposal have an accepted theoretical foundation?
2. Can the proposal be applied effectively and efficiently in practice?
3. What are the circumstances necessitating the proposal?
4. What would be the consequences of the proposal?

The AER is also urged to consult on the prior question:

- What is the 'regulatory task'?

4 Return on debt and inflationary expectations

The other two central elements in the RoRI are:

- Return on debt (Debt)
- Treatment of inflationary expectations – a clarification

With respect to the Debt, the AER has considered the benefits and risks of three options for assessing the return on debt. Ultimately, the AER has come to a pragmatic conclusion that, on balance, it is preferable to retain the existing approach of the 10-year trailing average cost of debt. In doing so, it has looked beyond the NPV=0 criteria, to consider factors such as stability and volatility.

The CRG contrasts this approach with the previous assessment of the term for the return on equity. The CRG supports retaining the 10-year trailing average approach. The CRG also supports the AER in first, gathering evidence about actual debt practices and second, opening a discussion on how best this information could be used while retaining the 10-year trailing average approach.

The AER has raised the question of whether there are some exceptional circumstances where the trailing average would not be a reasonable estimate of the Debt. The CRG agrees that this is a matter for further consideration, although the CRG also stresses the importance of developing a framework, *ex-ante*, for deciding when exceptions should apply and when they should not, to avoid 'special pleadings' from the network.

This section concludes with the CRG expressing its strong concerns that our position on regulatory inflation was misrepresented in the *Terms paper*. The CRG did not support the change to a 5-year term for inflation, as we considered the term for inflation must be consistent with the term of the 10-year Commonwealth Government Securities (CGS) and the term of the commercial bonds.

For this reason, the CRG advised that the term of inflation should not be decided in advance of a decision on the term of the risk free rate (return on equity), and commercial bonds (Debt). Our views on this remain and are explained further in Section 4.2. The issue central to the risks the AER takes with the coherence of the overall rate of return by 'unpacking' the terms for inflation, equity and debt.

4.1 Return on debt

The Debt is the other element in the weighted average cost of capital (WACC). In 2013, the AER adopted a trailing average approach for determining the Debt.[39] At the time, consumers

[39] AER, *Rate of return guidelines* (2013)

supported a trailing average approach on the basis of the benefits of predictability and stability in pricing. Consumers also accepted the potential value of 'de-risking' the recovery of the cost of debt for the networks, although in the final analysis, there was no explicit sharing of these benefits with consumers.

4.1.1 Trailing average approach

The *Term paper* provides the following explanation:[40]

> *"The trailing average is calculated as the simple average of values over a specified number of estimation periods which is updated overtime. For example, the 10-year trailing average for the Debt for the forthcoming year would be calculated as the simple average of the annual Debt for that year and the annual Debt estimates for the 9 previous years."*

In a market where interest rates are generally declining (rising), a trailing average approach will lead to the allowed Debt being set at a higher (lower) level than the observable interest rates at that time.

This was illustrated in the *LIRE paper* and is reproduced here.[41]

Figure 4-1: Risk free rate step change response, trailing average vs spot rate

Sources: RBA; Bloomberg; AER

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40 AER, *Term paper* (May 2021), p 54

41 AER, *LIRE paper* (May 2021), p 33

he AER reinforced its support for a trailing average approach in its 2018 RoRI review and has reiterated its support in the *Term paper*, giving several reasons. Perhaps most importantly:

> *"[O]n balance our [the AER's] current position is to maintain the use of a trailing average Debt"*

The *Term paper* cites the following reasons for maintaining this position:

- Maintaining a trailing average Debt would provide certainty and stability for businesses and consumers…
- A trailing average approach would lower cashflow and price volatility for regulated businesses and consumers respectively…
- Lally has advised that *"a trailing average is feasible for businesses to implement"*[42]

Once again informed by advice from Lally, the AER has concluded:

- *"the term of equity and the term of debt do not need to align"*[43]
- *"the term of an efficient firm's borrowing could be less than the ten-year term currently imbedded in our trailing average approach"*[44]

and that it:

- *"propose[s] to match the term of debt to that of an efficient firm's borrowing"*[45]
- *"[is] using the EICSI[46] and corresponding WATMI[47] to inform the return on debt term to better match that of an efficient firm's borrowing".*[48]

The *Term paper* also notes that a trailing average debt may not always be appropriate. It provides a number of examples, including new market entrants investing in new assets, or existing network providers investing in assets that would comprise a significant proportion of their regulatory asset bases. The *Term paper* observes that these situations may arise in response to investments in transmission projects arising from the Australian Energy Market Operator's (AEMO) Integrated System Plan (ISP).[49]

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[42] AER, *Term paper* (May 2021), pp 47-48

[43] AER, *Term paper* (May 2021), p 36

[44] AER, *Term paper* (May 2021), p 6

[45] AER, *Term paper* (May 2021), p 49

[46] Energy Infrastructure Credit Spread Index

[47] Weighted Average Term to Maturity at Issuance

[48] AER, *Term paper* (May 2021), p 49

[49] AER, *Term paper* (May 2021), p 48

4.1.2 CRG observations

The CRG reserves its judgement on the AER's proposed approach to determining the Debt. In particular, our position depends on further detail to be released by the AER in its *Debt Omnibus paper* in July 2021. As outlined previously, the CRG places considerable importance on the AER and other stakeholders providing relevant evidence on the impacts of any changes to the existing regulatory approach on consumers' prices and services. The CRG looks forward to seeing this addressed in the AER's Omnibus papers.

The CRG considers the AER fundamentally changed the way Debt is treated in the regulatory framework when it shifted to a trailing average approach – that is, the AER shifted its approach from a forward-looking approach[50] to a historical portfolio approach (as measured using a 10-year trailing average).

A portfolio approach allows the AER to use historical 10-year bond data (measured annually) to inform its allowed Debt. Indeed, the CRG contends it is still appropriate for the AER to base its approach on the assumption of a portfolio of 10-year bonds built up over a 10-year historical period, acknowledging the transition process complicates this approach.

The AER's *Term paper* states that:

> *"[O]n balance, our current position is to maintain the use of the trailing average return on debt…".*[51]

The AER bases its position, inter alia, on the following important and relevant observations, [with CRG emphasis added]:

- *"Maintaining a trailing average return on debt would provide **certainty and stability** for businesses and consumers".*[52]
- *"The consistent application of the current approach **over the life of a regulated asset** would allow, on average, an allowed return on debt commensurate with the efficient financing costs of a benchmark efficient entity".*[53]

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50 Previously, the AER applied an "on-the-day" measure of the 10-year debt costs. This was changed to the 10-year trailing average in 2013 under the AER's Better Regulation program. The AER's portfolio approach assumes that at the start of a regulatory period, a network will have a portfolio of 10-year debt with different maturity dates. The 10-year trailing average is designed to approximate this portfolio, although the 10-year transition to this approach complicates this interpretation for the current period.

51 AER, *Term paper* (May 2021), p 47

52 AER, *Term paper* (May 2021), p 47

53 AER, *Term paper* (May 2021), p 47

- *"A trailing average approach would* ***lower cashflow and price volatility*** *for regulated businesses and consumers respectively".*[54]

The CRG supports the AER's emphasis on these factors of certainty, stability and recovery over the life of the assets and lower cashflow and price stability. These factors are consistent with the CRG's concerns regarding the AER's suggested changes to the term of the return on equity.

In addition, the CRG has emphasised the importance of evidence. In assessing the return on debt for the 2022 RoRI, the AER advises it will consider using information on actual debt practices of the regulated industries since 2018 in addition to its current approach. This development is a result of the AER collecting information on actual debt practices of the networks. Using this data, the AER has progressively, and with increasing confidence, developed the Energy Infrastructure Credit Spread Index (EICSI) and the corresponding Weighted Average Term to Maturity Issuance (WATMI).[55] In coming to this view, the AER also cites international practice and Lally's advice. The AER states:

- *"Lally has also advised that satisfying the NPV=0 condition would require matching the interest rate incurred by an efficient firm with the regulatory allowance which would entail* ***matching the term of debt****."*[56] [CRG emphasis added]

On the basis of the evidence provided in the EICSI and WATMI, the AER concludes:

> *"This indicates that the term of an efficient firm's borrowing may be slightly shorter than the ten-year term currently imbedded in our trailing average approach."*[57]

The AER and the ENA have proposed various ways the EICSI, the WATMI and other data on debt practices might be incorporated into or supplement the trailing average approach to debt.

The CRG recognises that this is a complex and challenging issue, and we look forward to further assessment of the options in the AER's upcoming *Debt Omnibus paper*. Regardless, we expect the AER to fully investigate and consult on the following questions:

1. Will the blending of two approaches encourage efficient debt management practices or distort the regulatory incentive framework?

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[54] AER, *Term paper* (May 2021), p 47

[55] AER, *Term paper* (May 2021), p 49

[56] AER, *Term paper* (May 2021), p 49

[57] AER, *Term paper* (May 2021), p 49

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2. Will a change in approach adversely impact on consumers given the current period of over-recovery of efficient debt costs under the 10-year trailing average?[58]
3. What framework should the AER establish when making decisions on when the trailing average approach to the Debt should not apply?

We discuss these three concerns below. Consistent with our response to the term for return on equity, the CRG expects the AER to provide evidence of the impact of any changes on consumers' prices and services.

4.1.3 Blending of two approaches

The AER's proposal in the *Term paper* represents a blending of two approaches for determining regulated revenue allowances namely, the trailing average and revealed costs approaches. These two approaches assume different patterns of behaviour by regulated entities in response to the regulatory framework, and as such represent a clash of regulatory approaches. They are described as follows:

- The **trailing average approach** at least enables networks to match the profile of their borrowings to the regulator's assumed portfolio, as noted by Lally. Whether networks choose to structure their borrowings in this way is their choice and not a matter for the regulator under this form of estimating the regulated cost of debt.
- A **revealed cost approach** assumes that regulated entities will seek to outperform their regulator's revenue allowances. In subsequent regulatory periods, the regulator uses this 'revealed' information about out-turn expenditures (typically, operating and capital) to update its expenditure benchmarks and allowances. This process is repeated at each reset and is assumed to iteratively reveal operators' efficient cost of providing regulated services.

By blending market-based benchmarks of debt costs with networks' observed debt practices (informed by the EICSI and WATMI), the AER would at least partly be moving towards a 'revealed costs' approach for estimating the efficient cost of debt. The consequences of blending a trailing average approach with a revealed cost approach are not obvious, nor are they explored in the *Term paper*.

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[58] Compare for example the Figures on the trailing average (

Figure 3-1Figure 4-1) with the spot rate (

Figure 3-1). The trailing average cost of debt is currently higher than the 'on-the-day' 10-year bond yields because it incorporates a period of years when the spot rate was higher than the current rate.

The AER needs to assess whether blending these two approaches will encourage efficient debt management practices by the networks it regulates and explain how it will monitor and guard against inefficient practices.

4.1.4 Sharing of benefits over the interest rate cycle

The CRG also notes that since its inception, the trailing average approach has favoured networks at consumers' expense because of generally declining interest rates – as shown in Figure 4-1. When the trend in interest rate reverses, the flow of benefits will reverse with the applied rate of return resting below observed interest rates.

No sympathy should be shown to networks in these circumstances because, as Lally observes, mostly networks can manage their debt profiles to match the trailing average approach.[59] If they have chosen not to do so while interest rates are declining, then they should bear the consequences when rates rise again. For the trailing average approach to be equitable for consumers, it must persist through the interest rate cycle.[60]

Consumers would be rightly concerned if the eventual rise of interest rates led to the AER introducing an asymmetric treatment of risk when it determines an allowed Debt.

As an early warning device against these special pleadings, the AER should monitor and publicly report on whether networks are adopting risk management practices that will expose them to rising debt costs.

4.1.5 What decision framework will the AER adopt for not applying the trailing average?

The CRG acknowledges there may be exceptional circumstances in which a trailing average Debt might result in sub-optimal outcomes. For instance, it may be reasonable to consider other approaches if the Australian Energy Market Operator (AEMO) develops a large transmission network as part of the Integrated System Plan (ISP). The *Term paper* considers a number of options to adapt the current methodology for these circumstances.

The CRG expects the AER to consult on and implement targeted methodologies for dealing with network claims that they face *special circumstances*. The AER indicates the trailing average should **not** apply to networks at least for that time, or that project.

The AER should develop relevant methodologies well in advance of such claims emerging. Failure to act proactively can be expected to lead to special pleading from vested interests. In

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59 Lally, Martin (Capital Financial Consultants Ltd), *The appropriate term for the allowed cost of capital* (April 2021)

60 However, Lally qualifies this comment by stating that the NPV=0 criteria can be reasonably satisfied using the trailing average if the profile of capital expenditure is reasonably constant. The criteria may be violated if there are large lumpy investments, such as may occur in the transmission networks. See also the discussion that follows on 'exceptional' circumstances.

addition, the AER should monitor, and publicly report on whether networks are adopting risk management practices that will expose them to rising debt costs.

4.1.6 Recommendation 2

As part of this RoRI review, the AER should:

- Explain how it will ensure inefficient debt management practices do not become embedded in a trailing average approach for the allowed debt
- Propose a framework for monitoring and publicly reporting on whether networks are adopting risk management practices that will expose them to rising debt costs
- Propose a framework for dealing with the exceptional circumstances where a trailing average approach may not be appropriate

4.2 The regulatory treatment of inflationary expectations

In the latter half of 2020, the AER undertook a multistage consultation process on the term for estimating inflationary expectations. Like the return on equity, inflationary expectations cannot be observed *ex-ante* and accuracy of the AER's estimates cannot be verified *ex-post*.

In September 2020, the CRG wrote to the AER outlining its concerns that the AER had not provided any analysis in support of its proposal to shorten the term for estimating inflationary expectations.

The AER elected not to undertake this analysis. Instead, it responded:

> *"The framework the CRG uses to assess options of producing the best estimates of expected inflation is a matter for the CRG."*[61]

The AER's October 2020 draft proposal continued to support a shortening of the estimation term for inflationary expectations. In response, the CRG submitted the AER should consider the terms for all elements in the rate of the return instrument as part of a single, comprehensive exercise.

> *"[T]he AER cannot make a decision on its methodology for estimating inflationary expectations ahead of its consideration of the rate of return instrument (RoRI). These are completely interwoven elements of the regulatory framework. The CRG is also concerned a pre-emptive decision on estimating inflationary expectations, may prejudice the AER's later decisions regarding the rate of return instrument."*[62]

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[61] AER, *Draft position - Regulatory treatment of inflation [Internet]* (October 2020), p 33

[62] CRG, *Advice to the AER on the regulatory treatment of inflation* (November 2020), p 13

The *Term paper* fundamentally misrepresents the CRG's position when it claims the CRG supported a shortening of the term used for estimating the return of equity. Because the AER shortened the term for inflationary expectation in its *Final Inflation position paper* in December 2020,[63] it simply presumed the CRG's position on the term for the return on equity.

> *"[The CRG] made a submission that we should employ a consistent approach to term across our inflation and rate of return estimates and therefore we should also change the term for our rate of return."*[64]

The CRG's submission in November 2020 also included mathematical proof that applying different terms for inflationary expectations and the return on equity implied the AER was holding inconsistent beliefs about the future, that is, the AER would be acting irrationally.[65] The AER nonetheless confirmed its support for a shorter term for inflationary expectations in its final position paper in December 2020.

The *Term paper* summarises the CRG's proof but then continues:

> *"We agree with the view that the term for the rate of return and the term for expected inflation should be independently assessed."*[66]

The views referenced in the above quote are those expressed by the APGA and ENA. The *Term paper* reached this conclusion without any attempt to disprove or engage with the CRG's mathematical proof.

4.2.1 CRG observations

The CRG is concerned by the AER's lack of engagement with the matters it has submitted, especially given the AER established the CRG to represent consumers' views in the RoRI review process. The CRG seeks to meet that duty by:

- Seeking to objectively reflect the reasonable views of interested and impartial consumers
- Using a range of methods to engage with consumer advocates and others to ascertain their responses to the AER's working papers, and
- Surveying a diversity of residential and business customers to identify their expectations of the regulatory decision-making processes and outcomes.

All three approaches have led the CRG to form the same conclusions:

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63 AER, *Final Position. Regulatory treatment of inflation* (December 2020)

64 AER, *Term paper* (May 2021), p 3

65 This proof is reproduced in Appendix A

66 AER, *Term paper* (May 2021), p 37

1. Consumers expect and value **fairness, stability and predictability** in the operation of the regulatory framework.
2. Consumers accept that revisions to the regulatory framework may be warranted from time to time, but the burden of proof rests with the proponent for change.
3. Given the longevity of the regulatory framework, consumers expect changes should only proceed after a comprehensive case for change has been made.

Neither the *Term paper* nor the AER's *Final position paper on the regulatory treatment of inflation* have demonstrated a comprehensive case for change. Likewise, the AER has not yet comprehensively demonstrated that, *"the term for the rate of return and the term for expected inflation should be independently assessed"*.

The AER should properly engage with consumers' concerns, as reflected in the CRG's advice.

4.2.2 Recommendation 3

The AER should engage with consumers' concerns about the terms for the rate of return and inflationary expectations, and acknowledge where those concerns have been previously misrepresented.

4.3 What if the AER does not proceed with a shorter term for equity?

On 15 June 2021, the AER hosted an online public forum to present and discuss its *Term paper*. Investor,[67] network[68] and consumer representatives presented their preliminary responses to the *Term paper*. The CRG presented on behalf of consumers and outlined many of the concerns presented in this submission – namely, the four questions posed in Section 3 of this submission.

4.3.1 CRG observations

While presenters reached different conclusions about how the AER should proceed on the term for estimating the rate of return, they shared a common perplexity about *why* the AER was proposing to shorten the term. Whereas networks opposed the proposal, the CRG argued the burden of proof lies with the AER to make the case for change and failed to do this in the *Term paper*. The CRG's concerns are articulated more fully in this submission.

[67] Investors Reference Group, *Presentation to public forum on the Term of the rate of review* (June 2021)

[68] ENA, *Presentation to public forum on the Term of the rate of review* (June 2021); AGPA and Investors Reference Group (June 2021); Australian Gas Pipelines Association. *Presentation to public forum on the Term of the rate of review* (June 2021)

In the absence of support for its proposal, and subject to whether the AER is prepared and able to answer the CRG's four questions (listed in Section 3), there is a possibility the AER will withdraw its proposal to shorten the term for the return on equity.

For the reasons outlined in the CRG's November 2020 submission on the regulatory treatment of inflation,[69] such a decision would present an unacceptable outcome for consumers if the term for inflationary expectations remains shorter than the term for the return on equity. Moreover, the irrationality of such an outcome, as discussed above and demonstrated in Appendix A, would damage informed consumers' confidence in the regulatory framework.

If the AER does not proceed with its proposal to shorten the term for the return on equity, its final December 2020 position on the term for estimating inflationary expectations will need to be revisited.

4.3.2 Recommendation 4

> Should the AER not proceed with its proposal to shorten the term for the return on equity, it will need to revisit its earlier decision shortening the term for inflationary expectations in order to avoid irrationally applying the regulatory framework.

[69] CRG, *Advice to the AER on the regulatory treatment of inflation* (November 2020)

5 Consumer advocate feedback on the *Term paper*

5.1 Context

On 9 June 2021, the CRG held a two-hour online workshop using MSTeams with eleven invited consumer representatives to provide an overview of the AER's *Term paper* and *LIRE paper* and seek their initial reaction to the AER's papers. The CRG provided participants with copies of the working papers ahead of the workshop.

A CRG member facilitated the workshop, which was structured around the *Term paper* and the *LIRE paper*. Throughout the workshop, participants were encouraged to provide comments and ask questions using the chat function in MSTeams, as well as in a facilitated question and answer session.

CRG members used PowerPoint presentations to inform participants about the contents of the working papers, including AER arguments for and against changing the term.

Participants were given an opportunity to provide comments and ask questions before the CRG presented its perspective on the papers.

The second half of the workshop began with a short presentation by the CRG of its preliminary assessment of the *Term paper* and the *LIRE paper*s. This presentation was followed by a further discussion where consumer representatives were invited to reflect on the CRG's preliminary views. Importantly, the workshop was aimed to ensure consumer representatives were able to express their own views on the *Term paper* before the CRG shared its preliminary views.

The CRG is grateful for consumer representatives' willing participation and anticipates ongoing engagement with consumer representatives throughout the development of the RoRI.

5.2 Key findings

Consumer representatives are not convinced of the need for change

The following discussion summarises the main feedback from consumer representatives in relation to the *Term paper*.

5.2.1 General concerns

Consumer representatives believe that the AER has not made out the case for change in either the *Term paper* or *LIRE paper*s. For example, two representatives commented:

> *"I don't want to sound too cynical there, but I have a belief that it is important that in making decisions like this that evidence is sound and put up-front"*
>
> *"So in the discussion of those 'geez we got it wrong for the last 20 years and it really should be 5 years' have they gone through and disproven you know all of the assumptions they made in the past or they're just saying, 'well we thought about things differently now'?"*

Advocates were clearly concerned about what seems to be arbitrary changes to long standing approaches by the AER, changes that go against the AER's own regulatory criteria of transparency, stability and predictability. For instance, two participants commented:

"[A]nd the arguments that we've seen for the last 20 years or even, no, more than 20 years…is that we need the term to be 10 years because of, and the arguments being presented. And suddenly, for some unbeknownst reason there's this flip and there's got to be a reason for it and it's not clear why they've done this. And I find it difficult to accept that just because someone had a brain fall you know we've got to get to NPV = zero."

"It's like all of a sudden all the things that we've learned from a long time ago, those rules don't apply anymore"

A common theme among workshop participants related their view that the AER needs to test whether it has *"got it right"* in the past. For example, one participant said:

"It would seem, you know, to me, this was a big failing of the way in Australia we assess infrastructure investments. We do an awful lot of work, like we're doing at the moment, in a priority sense; yet, at the end of the day, nobody sits down and does an ex-post evaluation of all those decisions and finds out 'well did we get it right; if so, why and if not, how can we improve?'"

Reflecting on the two quotes at the beginning of this section, it is apparent to the CRG that consumer representatives want to see evidence of the impact of a change to the term on consumers.

Overall, consumer representatives:

- Are concerned about the implications of a change in term on the risk allocated to and they want to understand these implications.
- Understood that on the face of it, a move to a 5-year CGS for the risk-free rate would lead to lower rates of return. However, they also indicated that they needed to understand the implications of such a change for other parameters in order to have any confidence that the change would be in consumers' interests.
- Are concerned about the potential for increased volatility, for example one participant said:

  "Network asset owners and consumers have something in common; need for stability."

  They followed up with the following comment related to volatility:

  "the WACC is the largest influence on network prices and therefore any volatility in the WACC will have a substantial influence on retail power bills. Volatility could increase with the AER proposal. This is a concern as there is already increased volatility in other components of a power bill not determined by the regulatory process e.g. jurisdictional scheme charges. Therefore, when looking at the AER's proposal we need to understand the total potential

impact of increased volatility on consumers. Volatility that in some instances cannot be mitigated by the AER e.g. smoothing of network revenues in a regulatory period."

- Queried whether if the AER wants to provide for the NPV=0 principle, then is it undertaking any *ex-post* analysis of actual returns to verify that over the 5-year period just concluded, NPV actually equals zero.
- Believe the proposals seem to favour network interests, particularly when considering the apparent implications of the AER's strong position in its *Term paper* that a 5-year forward-looking term for the return on equity was necessary in order to satisfy the NPV=0 principle. For example, two participants commented:

"I can't help thinking that if I'm a network, I'm going to be cheering what the AER is writing here, because that suggests to me they're going to recant on their views of dividend growth models and goodness knows what else because they'll always look at expected returns."

"There is some evidence that the current settings are working because networks are still investing, they're still looking to get significant amounts of capital in each of their resets. And when assets are being sold we see that there's quite a significant premium over the asset base in the purchase. So they obviously consider that the cash flow is going to be positive. So I think there is evidence that says that what we're doing at the moment is good enough and you don't have to change."

- Noted that the last year and a half represented an unusual period. Accordingly, they would be concerned if there was an undue focus on recent data in determining RoRI parameters.

Beyond the comments above, one participant also recognised the challenge of trying to match the 4-year RoRI to the rolling series of 5-year regulatory determinations. The 2022-26 RoRI will influence networks' allowed rate of return for many years beyond 2022-26.

5.3 Summary

This is powerful feedback from consumer representatives. It comes from eleven highly experienced individuals with deep knowledge of the AER's regulatory framework and who represent a diverse range of consumer interests and perspectives.

The message is clear. Consumers representatives want more evidence to be provided about the case for change. They highly value stability in the setting of the RoRI.

6 Conclusion: High bar for change

As noted throughout this submission, stability and predictability are long held principles of regulatory design and practice. While consumers value these characteristics, the benefits are also recognised by the AER. For example, when discussing its proposal to maintain a trailing average approach for debt, the *Term paper* defers to the benefits of stability.

> *"We consider this would provide certainty and **stability** for businesses and consumers."*[70]

The *LIRE paper*, released alongside the *Term paper*, concludes:

> *"The current regulatory framework provides investors with a **stable** and predictable regulatory investment framework that includes an ex-ante return on their investments."*[71]

The AER's *Final position paper on the regulatory treatment of inflation* (December 2020) qualified its support for a stable regulatory investment framework.

> *"We consider that **stability** in the framework is important, but we will continue to evaluate proposed changes carefully to ensure that they better achieve the NEO/NGO."*[72]

These observations made by the AER should be viewed alongside its other observations about the inherent absence of a unique, normative truth regarding the determination of a regulated rate of return.

> *"Estimating the rate of return is difficult and contentious. It requires regulatory judgement to assess the complex and sometimes conflicting evidence; and to engage with finance theory, academic literature and market practice. There is no one 'right answer' to be found."*[73]

Further,

> *"For return on equity, experts and regulators often reach differing positions on the strengths and weaknesses of different models and how those models should be implemented."*[74]

6.1 CRG observations

The CRG agrees that stability represents a guiding principle for, rather than the objective of, economic regulation. The relevant question for the AER and its stakeholders is:

- What weight should be placed on regulatory stability?

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[70] AER, *Term paper* (May 2021), p 5

[71] AER, *LIRE paper* (May 2021), p 48

[72] AER, *Final Position. Regulatory treatment of inflation* (December 2020), p 21

[73] AER, *Term paper* (May 2021), p 2

[74] AER, *LIRE paper* (May 2021), p 22

As the AER acknowledges in the last two quotes above in relation to the rate of return, *"there is no one 'right answer' to be found" and each option has its "strengths and weaknesses"*. The CRG completely agrees, but contends that the absence of a single objective truth implies that changes to the framework must be pursued with caution – particularly when aspects of the framework have been in place and unchanged for many years.

Until the AER comprehensively answers the CRG's four questions asked in Section 3 of this submission, replacing one *"no one 'right answer'"* with another *"no one 'right answer'"*, risks undermining consumers' (and other stakeholders') confidence in the regulatory framework. Reiterating,

1. **What are the theoretical foundations of the AER's alternative approach?**
2. **What are the practical implications of implementing the alternative approach?**
3. **What are the circumstances that necessitate a re-interpretation of the AER's regulatory task?**
4. **What are the consequences of adopting the alternative approach?**

The regulatory framework cannot lead to the efficient outcomes envisaged in the NEO/NGO unless all stakeholders have confidence in how it is applied (and changed). As highlighted in Section 2, confidence in the AER's decisions is fundamental to achieving both efficient investment in ***and*** efficient utilisation of the network.

Consumers' confidence in the regulatory framework would be upheld if the AER clearly defined (and consulted on) the evidentiary threshold(s) that need to be satisfied before it considers a change to the regulatory framework. Then, having established those thresholds, the AER must demonstrate that a proposed change to the regulatory framework clearly satisfies those thresholds.

For example:

The AER reviewed its approach to the tax allowance in the regulatory building block in 2018.[75] The AER sought evidence of current taxation arrangements from the networks. The evidence was clear. The AER's approach to assessing taxation costs required some revision to address the over-recovery of the AER's tax allowance by some networks.

In this instance, the AER changed its approach to better reflect the actual practice. However, this change met the 'high bar for change' as it was based on evidence from the market. That is, a change was made, but it was based on a careful assessment of the evidence and

[75] AER, *Final Report, Review of regulatory tax approach* (December 2018)

consideration of the impact of the change on the incentive properties of the regime and on consumers over the longer term. The *threshold* for change was met.

Similarly, when moving to a trailing average for debt, the AER examined networks' debt practices and whether the regulatory approach reflected efficient practices. In its 2013 decision, and in the current *Term paper* assessment of the cost of debt, the AER explicitly seeks to achieve a balance between 'stability' and the NPV=0 principle. In contrast, when considering the return on equity, the *Term paper* relies heavily on the NPV=0 principle at the expense of other important principles.

Overall, the AER's *Term paper* has not established the thresholds for change, and therefore it has not yet demonstrated a case for change to the estimation of the return on equity. Importantly, the CRG's consumer research also supports this view and confirms our concern that the AER's preferred position on the return on equity is presented without providing consumers with the 'total' picture of how this change will impact on prices and on price stability over time.

6.2 Recommendation 5

The AER should:

- define and consult on the evidentiary thresholds that need to be satisfied before it considers changing the terms for the rate of return and inflationary expectations; and
- having established those thresholds, demonstrate that its proposed change to the estimation terms clearly satisfies those thresholds.

Appendix A: The logical inconsistency of the AER's proposed method[76]

The nominal rate of return in the AER's revenue allowance models derives from observed nominal 10-year bond rates. These observable bond rates inform estimates of both the nominal cost of debt and the nominal return on equity. For ease of exposition, the following analysis uses a 10-year nominal bond rate as a proxy for the nominal rate of return.

The nominal bond rate (B_t) represents a value where $B_t = 1.04$ equates to a 4 per cent nominal bond rate.

The 10-year nominal bond rate equals the 10-year geometric mean of expected annual nominal bond rates (B_t^e) over the 10-year life of the bond.

$$Ten\ year\ nominal\ bond\ rate = \prod_{t=1}^{10} (B_t^e)^{1/10}$$

The 10-year real bond rate is given by the 10-year geometric mean of expected annual real bond rates over the 10-year life of the bond, where expected real bond rates are determined by the **Fisher equation** – that is, the expected annual nominal bond rates (B_t^e) in each year divided by the expected rate of inflation (π_t^e) in each year (where $\pi_t = 1.02$ represents a 2 per cent expected inflation rate).

$$Ten\ year\ real\ bond\ rate = \prod_{t=1}^{10} (\frac{B_t^e}{\pi_t^e})^{1/10}$$

This can be rewritten as:

$$Ten\ year\ real\ bond\ rate = \frac{\prod_{t=1}^{10} (B_t^e)^{1/10}}{\prod_{t=1}^{10} (\pi_t^e)^{1/10}}$$

and the denominator can be rewritten as:

$$\prod_{t=1}^{10} (\pi_t^e)^{1/10} = \prod_{t=1}^{5} (\pi_t^e)^{1/10} \prod_{t=6}^{10} (\pi_t^e)^{1/10}$$

The **AER's proposed methodology** for estimating the applicable real rate of return involves taking the 10-year nominal rate of return and dividing it by the geometric mean of expected inflation over a 5-year estimation period. The AER's proposed approach is represented by:

$$AER's\ ten\ year\ real\ RoR = \frac{\prod_{t=1}^{10} (B_t^e)^{1/10}}{\prod_{t=1}^{5} (\pi_t^e)^{1/5}}$$

[76] Repdebtuced from the CRG's submission on the regulatory treatment of inflation (November 2020)

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The AER's denominator can be rewritten as:

$$\prod_{t=1}^{5}(\pi_t^e)^{1/5} = \prod_{t=1}^{5}(\pi_t^e)^{2/10}$$

Equating the denominators of the two formulations (with the AER's denominator on the left and the denominator implied by the Fisher equation on the right) gives:

$$\prod_{t=1}^{5}(\pi_t^e)^{2/10} = \prod_{t=1}^{5}(\pi_t^e)^{1/10}\prod_{t=6}^{10}(\pi_t^e)^{1/10}$$

Simplifying gives:

$$\prod_{t=1}^{5}(\pi_t^e)^{1/10} = \prod_{t=6}^{10}(\pi_t^e)^{1/10}$$

and squaring both sides gives:

$$\prod_{t=1}^{5}(\pi_t^e)^{1/5} = \prod_{t=6}^{10}(\pi_t^e)^{1/5}$$

This last equation demonstrates that if the AER upholds the role of the Fisher equation in determining the relationship between nominal and real bond rates, then it must also be assuming the geometric mean of expected inflation in years 1 to 5 is equal to the geometric mean of expected inflation in years 6 to 10.[77]

Under the AER's proposed glide path, the geometric mean of expected inflation is:

(a) estimated to equal 1.95 per cent over years 1 to 5 (see p.67) – which can be inserted on the left side of the last equation above; and

(b) assumed to return to the middle of the RBA's target range (2.5 per cent) from year 5, meaning the geometric mean of expected inflation in years 6 to 10 will be 2.5 per cent. This value can be inserted on the right hand side of the last equation above.

Needless to say:

$$1.95\ per\ cent = 2.50\ per\ cent$$

is a meaningless result which highlights the logical inconsistency implied by the AER's proposed methodology for estimating expected inflation.

[77] The explanation of the Fisher equation in AER's discussion paper (May 2020) pp 11, 26, suggests the AER supports the role of the Fisher equation in defining the relationship between nominal and real bond rates

Appendix B: Overview of CRG Consumer Survey

The CRG requires direct evidence of consumers' preferences and interests to provide a broad context for its advice to the AER on its regulatory proposals in the establishment of the next Rate of Return Instrument (RoRI).

The CRG greatly values advice it receives from advocates, other consumer representatives, and technical experts. The CRG also believes that it is important to engage widely and directly with energy consumers to obtain their perspectives on issues relevant to the RoRI.

To this end, in June 2021, the CRG conducted an *initial* online survey of a representative sample of 1,000 residential energy consumers[78] and 200 commercial consumers[79] to establish:

- baseline data related to energy consumers' awareness and perceptions of regulatory processes and decisions
- expectations related to regulatory processes and decisions the AER makes on consumers' behalf.

The CRG believes this survey is the first of its kind,[80] and as such provides valuable evidence to inform the perspectives of energy consumers' needs, interests and expectations. This survey also provides the CRG with a sound basis to identify areas where further research with consumers is appropriate, as well as framing its deeper engagement with consumer representatives and advocates who have a greater understanding of regulatory processes and decisions.

The CRG identified a series of high-level issues to test with energy consumers and developed the questionnaire. Energy Consumers Australia, on behalf of the CRG, engaged Indeana to set up the online survey and facilitate the data collection. Indeana managed the age and gender quotas within State. Indeana sourced survey participants from the Researchify[81] online panel.

The CRG has undertaken an initial analysis of the survey data and has referenced some key findings in this submission. We intend to share other findings with the AER and other stakeholders as we analyse the results in more detail.

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78 Approximate residential quotas based on the proportions of households by State, according to the Australian Bureau of Statistics, *2016 Census of Population and Housing, Table Builder*, while Indeana established the age and gender quotas within each State

79 In line with Energy Consumers Australia (ECA) small business definition applied to its *Consumer Sentiment Survey*

80 We acknowledge the ECA regularly surveys residential and commercial energy consumers for its Consumer Survey. However, its focus is on "three key areas of [energy consumer] satisfaction, confidence, and activity", rather than the topics covered in this survey (https://energyconsumersaustralia.com.au/publications/energy-consumer-sentiment-survey-findings-december-2020)

We also acknowledge AER periodically undertakes a survey to monitor its performance from the perspective of those individual stakeholders and stakeholder organisations with whom it engages. However, this survey does not include the general population of energy users (https://www.aer.gov.au/publications/corporate-documents/aer-stakeholder-survey-2018)

81 For details see https://www.researchify.com.au/wdyt-research-panel

Appendix C: Overview of CRG's 9 June 2021 Consumer Workshop

Participants

Name	Organisation
[redacted]	Independent
[redacted]	Major Energy Users
[redacted]	St Vincent de Paul
[redacted]	Independent
[redacted]	Queensland Electricity Users Network
[redacted]	Council of the Ageing
[redacted]	Energy Users Association of Australia
[redacted]	Queensland Electricity Users Network
[redacted]	Council of the Ageing NSW
[redacted]	Council of the Ageing
[redacted]	Canegrowers Queensland

Workshop agenda

1. Welcome and introduction
2. Workshop aims and protocols
3. Context of these working papers
4. High level overview of working papers
5. Participant queries and reactions to the papers
6. CRG preliminary views
7. Question for participants: What would participants want to see to be satisfied the AER has acted in consumers' long-term interests?
8. Conclusion and next steps

References

Australian Energy Regulator. *2013 Rate of return guidelines*. Available from: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/rate-of-return-guideline-2013

Australian Energy Regulator. *Draft position - Regulatory treatment of inflation [Internet]*. October 2020. Available from: https://www.aer.gov.au/system/files/AER%20-%20Draft%20position%20paper%20-%20Regulatory%20treatment%20of%20inflation%20-%20October%202020_0.pdf

Australian Energy Regulator. *Final Position. Regulatory treatment of inflation*. December 2020. Available from: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-treatment-of-inflation-2020

Australian Energy Regulator. *Final Report, Review of regulatory tax approach*. December 2018. https://www.aer.gov.au/system/files/AER%20-%20Tax%20review%202018%20-%20Final%20report%20-%2017%20December%202018_0.PDF

Australian Energy Regulator. *Rate of return and cashflows in a low interest rate environment, Draft working paper.* May 2021. Available from: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/rate-of-return-and-cashflows-in-a-low-interest-rate-environment-pathway-to-rate-of-return-2022

Australian Energy Regulator. *Rate of return: Term of the rate of return, Draft working paper.* May 2021. Available from: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/term-of-the-rate-of-return-pathway-to-rate-of-return-2022

Australian Gas Pipelines Association. *Presentation to public forum on the Term of the rate of review.* 15 June 2021. Available from: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/term-of-the-rate-of-return-pathway-to-rate-of-return-2022/consultation

Consumer Reference Group. *Advice to the AER on the regulatory treatment of inflation*. 6 November 2020. Available from: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-treatment-of-inflation-2020/aer-position

Consumer Reference Group. *Fact sheet*. September 2020. Available from: https://www.aer.gov.au/system/files/CRG%20-%20Factsheet%20-%20Who%20is%20the%20CRG%20-%20September%202020_0.pdf

Consumer Reference Group. *Presentation to public forum on the term of the rate of review*. 15 June 2021. Available from: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/term-of-the-rate-of-return-pathway-to-rate-of-return-2022/consultation

AER Consumer Reference Group

Consumer Reference Group. *Submission to AER – return on Equity*. 9 October 2020. Available from: https://www.aer.gov.au/node/71905

Energy Networks Association. *Presentation to public forum on the Term of the rate of review*. 15 June 2021. Available from: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/term-of-the-rate-of-return-pathway-to-rate-of-return-2022/consultation

Incenta. *Term of the risk-free rate for the cost of equity*. Report prepared for Energy Networks Australia. June 2013

Investors Reference Group. *Presentation to public forum on the Term of the rate of review*. 15 June 2021. Available from: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/term-of-the-rate-of-return-pathway-to-rate-of-return-2022/consultation

Lally, Martin (Capital Financial Consultants Ltd). *Review of the AER's inflation forecasting methodology*. 8 July 2020. Available from: https://www.aer.gov.au/system/files/Dr%20Martin%20Lally%20-%20Review%20of%20the%20AERs%20inflation%20forecasting%20methodology%20-%208%20July%202020.pdf

Lally, Martin (Capital Financial Consultants Ltd). *The appropriate term for the allowed cost of capital*. 9 April 2021. Available from: https://www.aer.gov.au/system/files/Dr%20Martin%20Lally%20%28Capital%20Financial%20Consultants%29%20-The%20appropriate%20term%20for%20the%20allowed%20cost%20of%20capital%20April%202021%2812344438.1%29%20%281%29.pdf

National Electricity (South Australia) (New National Electricity Law) Amendment Act 2005. South Australia. 2005. https://legislation.sa.gov.au/LZ/C/A/NATIONAL%20ELECTRICITY%20(SOUTH%20AUSTRALIA)%20ACT%201996/CURRENT/1996.44.AUTH.PD