



Advice to the Australian Energy Regulator

CRG Response to the AER's July 2021 Draft Working Papers:

The Overall rate of return, Debt omnibus and Equity omnibus papers

Volume 2: Engagement

7 September 2021

Abbreviations and short forms

The CRG has adopted the following abbreviations throughout both s of its submission.

Abbreviation/short form	Long form/full name
AER	Australian Energy Regulator
ASX	Australian Stock Exchange
CAPM	Capital Asset Pricing Model
DGM	Dividend Growth Model
EICSI	Energy Infrastructure Credit Spread Index
ECA	Energy Consumers Australia
NEL	National electricity law
NEO	National electricity objective
NGL	National gas law
NEO	National gas objective
NSP	Network Service Provider
RAB	Regulated Asset Base
RoRI	Rate of return instrument
RoD	Return on Debt
RoE	Return on Equity
SACOSS	South Australian Council of Social Service

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1 Summary

1.1 Context

This volume 2 demonstrates the Consumer Reference Group's (CRG) commitment to broad consumer and stakeholder engagement in its advice to the Australian Energy Regulator (AER) on the making of the *2022 Rate of Return Instrument (RoRI)*.

Chapter 1 sets out why and how the CRG believes the AER needs to incorporate consumer opinions, preferences and interests in the RoRI.

We set out our findings from two consumer and stakeholder engagement initiatives from which we gathered evidence of energy consumers' priorities and preferences, which it achieved through:

- two relatively large-scale surveys with support from Energy Consumers Australia (ECA) (Chapter 3)
- in-depth interviews with investment specialists¹ to understand their perspectives on more technical matters associated with portfolio construction and elements of with the current rate of return Omnibus papers, (Chapter 4).

Volume 1 of the CRG's advice to the AER also includes a summary of the evidence obtained from consumer representatives on the AER's working paper series (Chapter 6 Volume 1).

As documented in previous submissions, the CRG has established five consumer-oriented principles to guide its advice to the Australian Energy Regulator (AER).² 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.
- Principle 4 – Risks should be borne by the party best placed to manage them.
- Principle 5 – There should be a high bar for change.

The CRG considers its five principles as the minimum requirements for the AER to engender consumer confidence in regulatory processes and outcomes. This is particularly relevant as the AER is proposing changes to the established regime. The CRG's principles are well-supported by energy consumers and representatives as established in the CRG's Consumer Survey 1 (see Section 3.2.1).

With consistent support for its principles, the CRG has confidence in applying them to assessing the AER's rate of return.

¹ The CRG has adopted the terms "independent investment specialists" and "independent investors" to differentiate those individuals it interviewed in its engagement activities from those individuals who belong to the AER's Investor Reference Group and have a specific interest in regulated energy network investments.

² CRG, *Submission to AER – return on equity*, October 2020, p 21

In addition to affirming the CRG’s principles, the surveys provide evidence of consumers’ priorities and preferences around the relationship between price and service reliability expectations, consumers’ perceptions of “long-term” and their trust and confidence in regulatory process and outcomes.

While this consumer research examines aspects of the RoRI at the broadest level and from a necessarily non-technical perspective, it nevertheless provides important contextual evidence to inform the CRG’s advice and analysis of the technical aspects of the RoRI. Importantly, as the AER makes its decisions, the CRG’s evidence can assist the AER in understanding consumer perspectives.

Evidence in this volume supports the CRG’s analysis and recommendations concerning the AER’s draft positions and recommendations presented in Volume 1.

1.2 Key findings, conclusions, and recommendations

1.2.1 Consumer surveys

Topic	Key findings and conclusions	Recommendations
Consumer engagement	<ul style="list-style-type: none"> The CRG recognises the AER’s commitment to consumer engagement in the making of the RoRI However, apart from the appointment of the CRG, the AER has not put forward a framework for engaging with consumers in making the RoRI The CRG developed a consumer engagement framework for engaging with consumers in making the RoRI³ which will continue to evolve as we work with the AER 	<ul style="list-style-type: none"> The AER work with the CRG to develop a framework that sets out the AER’s expectations for both the AER’s and the CRG’s engagement with consumers for the making of future RoRIs Such a framework should specify how the AER will consider advice and opinions from consumers and their representatives in RoRI determinations
Support for CRG principles	<ul style="list-style-type: none"> Consumers have demonstrated strong support for the CRG’s principles. The CRG considers these are integral to the AER achieving its statutory objectives including efficient investment in, and the promotion of efficient operation and use of energy for the long-term interests of consumers This evidence gives the CRG confidence in applying its principles in its assessments presented in Volume 1 	<ul style="list-style-type: none"> The CRG recommends its principles as 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

³ CRG, *Consumer Engagement Framework*, September 2020

Topic	Key findings and conclusions	Recommendations
<p>“Long-term” interests</p>	<ul style="list-style-type: none"> Both residential and commercial consumers were more likely to indicate that the long term for regulatory assessments should be a ten-year period This evidence supports the CRG’s perspective that the long-term interests of consumers are best served by considering the rate of return parameters across broad economic cycles, rather than what can be arbitrarily defined regulatory periods 	<ul style="list-style-type: none"> The CRG recommends that AER considers the rate of return in the context that the long-term interests of consumers are best served by considering the rate of return across broad economic cycles
<p>Consumption efficiency, including price-service trade-off and pricing more generally</p>	<ul style="list-style-type: none"> On balance, energy consumers favour affordable energy over excessively high service standards Consumer energy demand, and investments in energy efficient appliances and alternatives to network supply, are sensitive to price increases. To best satisfy the NEO and the NGO the AER needs to take into account both investment efficiency and consumption efficiency in making the RoRI⁴ 	<ul style="list-style-type: none"> The CRG advises the AER to explicitly incorporate in the RoRI, an assessment of consumption efficiency including consumer investment and behavioural responses in line with the NEO/NGO
<p>Building consumer trust and confidence in regulatory processes and decisions</p>	<ul style="list-style-type: none"> The CRG’s consumer surveys established that consumers have moderate confidence in regulatory processes and decisions⁵ 	<ul style="list-style-type: none"> The CRG would like to see the AER enhance its demonstration to consumers that it can be trusted to make good decisions in their long-term interests

⁴ The CRG has plans to undertake further research to better understand aspects of investment efficiency and consumption efficiency and to pursue these matters with the AER.

⁵ The CRG acknowledges the recent results from the AER’s 2021 stakeholder research (Newgate Research, *Stakeholder Research 2021, Report prepared for the AER*, July 2021). Results from the AER survey should not be directly compared with CRG survey results as the target populations are different as the CRG’s surveys focusing residential and commercial consumers and follow different lines of questioning.

1.2.2 Independent investment specialists

In interpreting the findings from the independent investment specialist interviews, independent investors were encouraged to think of both the existing network service providers (NSPs) and the AER’s benchmark pure-play regulated NSPs. Independent investors were aware that many of the current NSPs do not in practice closely align with the AER’s benchmark.

Topic	Headline findings	Recommendations
Regulated network assets in a balanced investment portfolio	<ul style="list-style-type: none"> • Investment portfolios need to include defensive, low risk and lower return assets • Expected returns from investments in NSPs might be significantly lower than assets with typical market risks, due to their defensive qualities. 	<ul style="list-style-type: none"> • The AER should have regard for the role of revenue regulated assets as long-term defensive investments and requiring lower rates of return
Assessing equity returns	<ul style="list-style-type: none"> • In determining market risk premia, the Dividend Growth Model is overly subjective and not an appropriate tool for the AER to incorporate in the RoRI • Investments in a “benchmark” regulated asset has similar characteristics to sovereign bonds 	<ul style="list-style-type: none"> • The AER should not include the Dividend Growth Model as a tool for determining market risk premia in the RoRI
Regulatory asset base (RAB) multiples	<ul style="list-style-type: none"> • In determining returns for regulated networks, it is appropriate to consider market RAB multiples • RAB multiples of 1.5 or more suggests the AER’s allowance is too high 	<ul style="list-style-type: none"> • In determining parameter values for the RORI, the AER should take into account RAB multiples in market activity
Return on energy network debt	<ul style="list-style-type: none"> • BBB + debt ratings, or higher, are appropriate for NSPs • Limited impact of gearing on an NSP’s credit rating • Potential ‘halo’ effect when investors consider the cost of debt for NSPs • Use of an index of actual NSPs debt costs could assist the regulatory process • Incorporation of hybrid securities in debt increases the financial risk to investor and the cost of capital businesses • There was no consensus on whether hybrids are seen as debt or equity although a suggestion was made that some sort of weighting should apply 	<ul style="list-style-type: none"> • The AER should not relax the benchmark debt rating below BBB+ • The AER should investigate relationships between benchmark credit ratings and gearing for NSPs • The AER should consider using actual debt indices in cost of debt parameters • The inclusion of hybrids is difficult and requires further analysis by the AER. • If the AER did decide to include hybrids, it should capture: <ul style="list-style-type: none"> ○ The impact on risk and cost ○ Consider what further adjustments may be required when estimating other rate of return parameters for a benchmark entity

Topic	Headline findings	Recommendations
Overall return on investment	<ul style="list-style-type: none"> When investors acquire interests in assets such as the NSPs, they expect to retain them for the long-term 	<ul style="list-style-type: none"> In setting parameters for the RoRI, the AER should be explicitly mindful of the long-term characteristics of investments in network services assets and their low risk, lower yield character

2 Context for consumer engagement

2.1 The role of consumers in economic regulation

A call for regulatory authorities and the enterprises they regulate to pay more attention to the experiences and expectations of the consumers they purport to serve has emerged as a significant regulatory economic theme.

More than 35 years ago, Ron Bannerman, then Chairman of the Trade Practices Commission, identified the crucial role of consumers in activating competition. He noted that consumers are not just passive recipients and beneficiaries of competition, instead their market transactions create and sustain competition, and regulation is the means of protecting that process.⁶ He further noted that:

“... administration is better placed to serve the total interest of consumers if it also has responsibilities to encourage market forces and industry efficiency”.⁷

In the context of the regulation of electricity and gas network services, consumers have limited capacity to directly influence price, quality, or service levels through their transactions. Although networks have an increasing focus on engaging with their consumers on pricing, quality and service levels, the AER has the ultimate regulatory responsibility for determining the rate of return and overall network revenue allowances, as directed by the National Electricity Law (NEL) and National Gas Law (NGL).

The NEL and NGL mandate the appointment of a Consumer Reference Group (CRG) to assist the AER in making the rate of Return Instrument (RoRI), indicating governments have formally recognised the need for the advice, experiences, and preferences of consumers in both the content of the instrument and the process for making it. For example, the NEL provisions covering the making of the rate of return call for effective consumer consultation and for the AER to have regard to advice and recommendations from the CRG (with additional provisions detailed in Appendix A).

2.2 AER's commitment to consumer engagement

The CRG, in framing its consumer engagement approach, notes the AER's commitment to consumer engagement, which it states publicly in various forms, such as on its website:

“The decisions we make and the actions we take affect a wide range of individuals, businesses and organisations.”⁸

The CRG further notes the AER's commitment to *“effective and meaningful engagement”* describing it as *“essential”* to fulfilling its role as well as enhancing the quality of its decisions and building consumer trust and confidence in regulatory processes and decisions:

“Engaging with those affected by our work helps us make better decisions, provides greater transparency and predictability, and builds trust and confidence in the regulatory regime.”⁹

⁶ Trade Practices Commission, *Tenth Annual Report 1983-84*

⁷ Trade Practices Commission, *Tenth Annual Report 1983-84*

⁸ AER, *Stakeholder Engagement*, n.d.

⁹ AER, *Stakeholder Engagement*, n.d.

In 2012, following changes to the NEL and NEG, the AER established its Better Regulation reform program to focus on promoting the long-term interests of consumers.¹⁰ This led to the AER developing a *Consumer engagement guideline for network service providers*¹¹ in 2013 to support Better Regulation. This was a major step in advancing the role of energy consumers in network regulation.

In 2017, the AER published a *Revised Stakeholder Engagement Framework* which demonstrates to the CRG the AER's ongoing commitment to engaging with energy consumers and others affected by regulatory decisions.

Beyond, the AER's *Revised Stakeholder Engagement Framework*, the CRG acknowledges AER initiatives such as "New Reg" which has an overall vision of ensuring that:

*"customers' preferences drive energy network businesses proposals and regulatory outcomes."*¹²

Whilst New Reg's aim was to improve the outcomes of energy networks' *regulatory proposals* through early engagement with consumers, it is nevertheless further evidence of the AER's broader commitment to consumer engagement. Thus, the CRG anticipates broader learnings from the New Reg approach could be more broadly applied to other AER decisions, including the making of the RoRI. For example, the CEPA evaluation of New Reg notes the importance to the AER of consumer engagement evidence in its decision making:¹³

*"the AER's Draft and Final Decisions indicate that it was able to place most weight on positions that were fully agreed between the parties, on the **basis of evidence from consumer engagement.**"* [emphasis added]

The commitment to consumers is further evidence in the AER's *Strategic Plan 2020-25*, which states:¹⁴

"The AER exists to ensure energy consumers are better off, now and in the future. Consumers are at the heart of our work."

Consumer engagement is essential for the AER to demonstrate this commitment. Although the AER surveys its stakeholders, with the most recent survey results published in September 2021, it does not currently gather comparable feedback from energy users. The CRG also notes the AER's stakeholder research is based on a sample of stakeholders which the AER provides to the consultant and is not based on a representative sample of consumers from the general population.¹⁵

Hence, beyond the commitment to consult with consumers, a clear pathway is needed for consumers and other stakeholder perspectives to be considered in the rate of return process if it is to meet the statutory tests. Importantly, the CRG notes that the AER in its *Overall Omnibus Paper*, recognises the requirement to place the long-term interests of consumers as central to its decision on the rate of return.

¹⁰ AER, *Better regulation*, n.d.

¹¹ AER, *Consumer engagement guideline for network service providers*, effective 1 August 2013

¹² AER, *New Reg*, n.d.

¹³ CEPA, *New Reg: AusNet Services trial, Final evaluation report*, Australian Energy Regulator, 30 June 2021, p 12

¹⁴ AER, *Strategic Plan 2020-25, 2020*, p. 3

¹⁵ Newgate Research, *Stakeholder Research 2021*, Report prepared for the AER, July 2021

“consider[s] that enhancing the long-term interests of consumers should be an overarching objective of any change to the rate of return framework.”¹⁶

2.2.1 Independent Panel observations

The CRG has also reflected on the Independent Panel’s assessment of the AER’s 2018 rate of return draft guidelines and notes the Independent Panel’s concerns around the AER’s over-reliance on finance theory at that time and detailed explanations of its methodology to determine the rate of return and explain why the decision is aligned with the National Electricity Objective (NEO)/National Gas Objective (NGO). The Independent Panel argued:

“The national objectives are achieved not by finance theory but by the rational, informed actions of the firms and individuals who comprise the regulated industries: debt investors, equity investors, the managers and employees of regulated firms, consumers large and small, and the practitioners who represent their interests before regulatory tribunals.”¹⁷

The Independent Panel’s argument led it to recommend:

“The AER should explain more clearly how the Final Guidelines promote achievement of the national objectives, including why it is confident that the rate of return methodology it has determined results in an outcome that is neither too high nor too low having regard to the risk-cost trade off involved.”¹⁸

The CRG notes that the AER acknowledged the Independent Panel’s concerns in its *Rate of return ‘Explanatory Statement’¹⁹* accompanying the 2018 RoRI but does not appear to have further investigated the issue in depth in the pathway to the 2022 RoRI.

2.2.2 The NEO/NGO and revenue and pricing principles

In making the RoRI, the NEO/NGO require the AER to seek an outcome which promotes efficient investment in, and efficient operation and use of networks. In doing so, the NEL and NGL also require the AER to have regard to revenue and pricing principles (see Appendix A), two of which can be directly informed by effective engagement with the various stakeholders described by the Independent Panel.

Mindful of its role set out in Section 18 of the NEO²⁰ which provides for the establishment of the CRG to help the AER implement an effective consumer consultation process, the CRG believes that such a consultation process requires stakeholder engagement to satisfy the legislative test.

2.3 CRG and its consumer engagement role

In June 2020, the AER appointed the CRG, in accordance with the role set out in the NEL and the NGL. Under the law, the CRG may:²¹

¹⁶ AER, *Rate of return: Overall rate of return. Draft working paper*, July 2021, p.22

¹⁷ Independent Panel, *Review of the Australian Energy Regulator’s Draft Guidelines*, September 2018, p.67

¹⁸ Independent Panel, *Review of the Australian Energy Regulator’s Draft Guidelines*, September 2018, p.68

¹⁹ Australian Energy Regulator, *Rate of return instrument, ‘Explanatory Statement’*, December 2018

²⁰ New South Wales Consolidated Acts, *National Electricity (NSW) Law – Sect 18F Definitions*, n.d.

²¹ *National Electricity (South Australia) (New National Electricity Law) Amendment Act 2005*, 2005, South Australia

- Consult with consumers of electricity and gas; and
- 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 notes that the AER in its *Request for Expression of Interest (REOI)*, for the CRG 2020 first and foremost lists consumer advocacy, insight, and engagement as the first of its criteria for selecting CRG members. It specifically sought members with:

“Significant experience ... (a) Consumer advocacy, insight and engagement – research expertise or significant experience in understanding diverse consumer priorities and needs, and engaging consumers in the regulatory framework.”²²

The CRG recognises the AER must exercise its judgement according to the law. Importantly though by the AER exercising *judgement*, subjectivity necessarily forms part of the decision-making. 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.

2.4 CRG’s position

The AER’s RoRI processes and decisions should promote the long-term interests of consumers. Consequently, the CRG considers that:

- Electricity and gas network services are provided at the least cost to achieve a level of service acceptable to consumers, now and in the long term.
- Consumers trust AER regulatory decisions and are confident their interests are fully, openly, and fairly understood and considered.
- Consumer preferences and perspectives relating to inflation and RoRI are evident in the AER’s decision-making.

2.5 CRG principles

Consistent with its position, the CRG also established and tested with consumers five consumer-oriented principles to guide its advice to the AER. The CRG’s views its five principles as 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. 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.

²² AER, *Request for Expression of Interest for the Consumer Reference Group - Inflation review 2020 and Rate of Return 2022*, May 2020, p.3

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

The CRG's 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 networks and these represent two distinct requirements for the AER to consider.

2.6 CRG engagement approach

The CRG recognises the importance of gathering evidence to support its advice to the AER and therefore recognises it has a key responsibility to engage with consumers and other stakeholders, to succeed in its vision. We have reflected on consumer engagement to inform the 2022 RoRI and have broadened our engagement with energy consumers beyond consumer representative groups and others who have direct understanding of energy regulation.

The CRG's engagement activities are underpinned by its *Consumer Engagement Framework*²³ which it prepared in accordance with best practice public participation principles in line with the IAP2 Quality Assurance Standard²⁴ to guide:

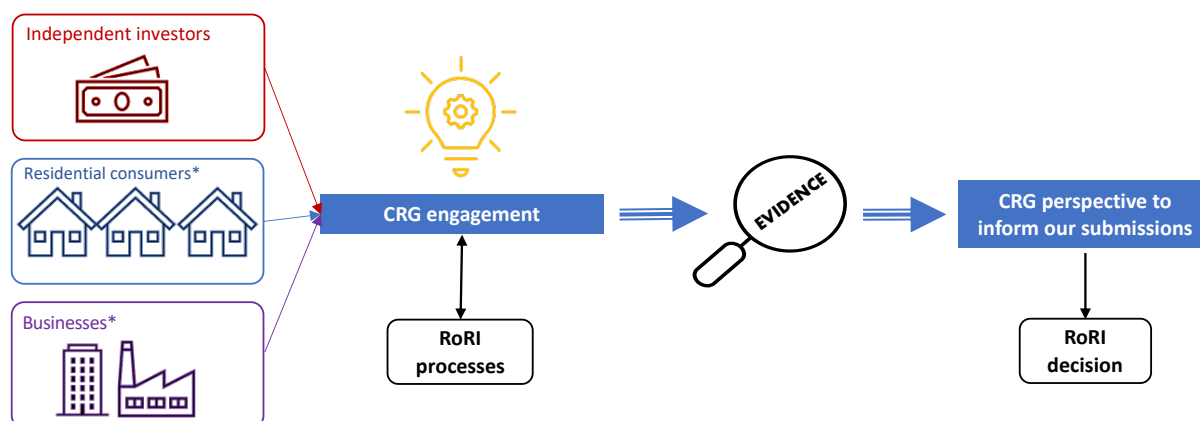
- Its strategic goals
- Specific consumer engagement activities
- The CRG's advice, submissions, and recommendations to the AER
- The CRG's evaluation of engagement evidence of consumer preferences provided by other stakeholders including the AER, consumer representatives, network service providers and investors

Direct evidence from consumers and other stakeholders combined with our technical analysis has informed the CRG's technical assessment presented in Volume 1 of our submission as well as more general advice contained in this Volume 2.

Our engagement approach is summarised by the following diagram.

²³ CRG, *Consumer Engagement Framework*, September 2020

²⁴ International Association for Public Participation, *Quality Assurance Standard*, May 2015

Figure 2-1: CRG's approach to engagement

* Includes consumer representatives

With the assistance of the ECA, the CRG has explored and tested regulatory concepts and ideas relevant to rate of return processes and the decision with a range of consumers and other stakeholders. This includes:

- Surveys of relatively large samples of residential energy consumers and small to medium commercial energy consumers (**broader consumer sample**) to establish sound evidence in support of its principles, as well as exploring their perspective on the “long term interests of consumers”, price and reliability trade-off, and how to build consumer trust and confidence in regulatory proposals.
- Additional broad engagement with consumers, on a range of energy regulation related issues through the Choice Community platform.
- Interviews and workshops with consumer representatives and others who represent a diversity of consumer interests, including those of the most vulnerable customers to those of global-scale large energy consumers. Collectively, these representatives have considerable knowledge and experience of regulatory processes, including the RoRI, and who provided more detailed feedback and on the impact of different aspects of the rate of return as they relate to consumer interests.
- Interviews with independent investment advisors (**independent investors**), such as superannuation fund managers who provided insight into how they make investment decisions and the possible impacts of RoRI decisions on their investment advice.

A more detailed overview of the CRG's consumer engagement activities to date and planned activities is contained in Appendix B of this Volume 2. Appendix D of Volume 1 provides further details on our engagement with consumer representatives over the last eight months.

3 Evidence framework

The following table summarises the categories of evidence gathered from CRG engagement with energy consumers and independent investors and frames the reporting of this evidence.

Table 3-1: Summary of evidence contained in this Volume

Topic area	Energy consumers in general	Independent investors
CRG principles	✓	
Perspectives on “long-term” interests	✓	
Consumption efficiency, price-service trade-off and pricing more generally	✓	
Trust and confidence in regulatory processes and decisions	✓	
Building an investment portfolio		✓
General perspectives on the rate of return		✓
Perspectives on specific elements of the rate of return related to the AER's current Omnibus papers, i.e. <ul style="list-style-type: none"> • Constructing an investment portfolio • Assessing returns on equity • Regulated Asset Base (RAB) Multiples • Return on energy network debt • Overall rate of return 		✓

Volume 1, Chapter 6 of this submission includes evidence from the consumer representative interviews and workshops.

4 Consumer evidence

4.1 Overview

The CRG has engaged with residential and small to medium commercial energy consumers via two online consumer surveys, and most recently as a member of the Choice Community, with engagement commencing mid-August 2021.²⁵ The evidence presented in this section focuses on the results from the two consumer surveys, while the CRG is building its engagement with the Choice Community to inform future advice the AER.

The CRG highlights both the importance, and the challenge, of engaging consumers on complex regulatory matters such as the rate of return. The CRG also acknowledges that most consumers' relationships are with an energy retailer rather than the networks. As a result, the consumer surveys began by providing consumers with information to provide a common basis of consumer understanding of the AER's role in network pricing, as distinct from overall retail pricing.

To date the CRG has initiated two reasonably large-scale online surveys of residential and small to medium enterprise commercial energy consumers as follows:

4.1.1 Consumer survey 1

In June 2021, the CRG commissioned an initial online survey (Consumer Survey 1) of a representative sample of 1,000 residential energy consumers²⁶ and 200 commercial consumers²⁷ 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 Consumer Survey 1 was the first of its kind²⁸, and as such it provided the CRG with valuable evidence of energy consumers' needs, interests, and expectations as well as support for the CRG's principles. This survey also provided the CRG with a sound basis to identify areas where further research with consumers would appropriate, as well as framing its engagement with consumer representatives (reported in Volume 1).

The CRG's Consumer Survey 1 identified issues that warrant further exploration to assist the CRG in providing the AER with the best possible advice in the long-term interests of consumers.

²⁵ Choice Community, n.d. further details of the CRG's engagement with the Choice Community are also included in Appendix C.

²⁶ 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 Indiana established the age and gender quotas within each State.

²⁷ In line with the ECA's small business definition applied to its *Energy Consumer Sentiment Survey*.

²⁸ The CRG acknowledges the ECA regularly surveys residential and commercial energy consumers in its *Energy Consumer Sentiment Survey*. However, the ECA's survey focus is on "three key areas of [energy consumer] satisfaction, confidence, and activity", rather than the topics covered in this survey.

The CRG also acknowledges that AER periodically undertakes a survey to monitor its performance from the perspective of those individual stakeholders and stakeholder organisations with whom it engages. However, the AER's survey does not include the general population of energy users.

4.1.2 Consumer survey 2

In August 2021, the CRG initiated a *follow-up* online survey (Consumer Survey 2) which examined in more detail:

- consumer trust and confidence in regulatory processes and decisions
- the notion of “long-term” as either 5- or 10-years
- sensitivity to price increases.

Consumer Survey 2 was conducted among an online survey panel in August 2021 and involved a sample of 1,500 energy consumers comprising 1,257 residential energy consumers and 240 SME commercial energy consumers. Three-hundred individuals who participated in Consumer Survey 2 had also participated in Consumer Survey 1, indicating their ongoing interest in energy regulation.

The CRG will provide the AER with a more detailed report in the coming weeks.

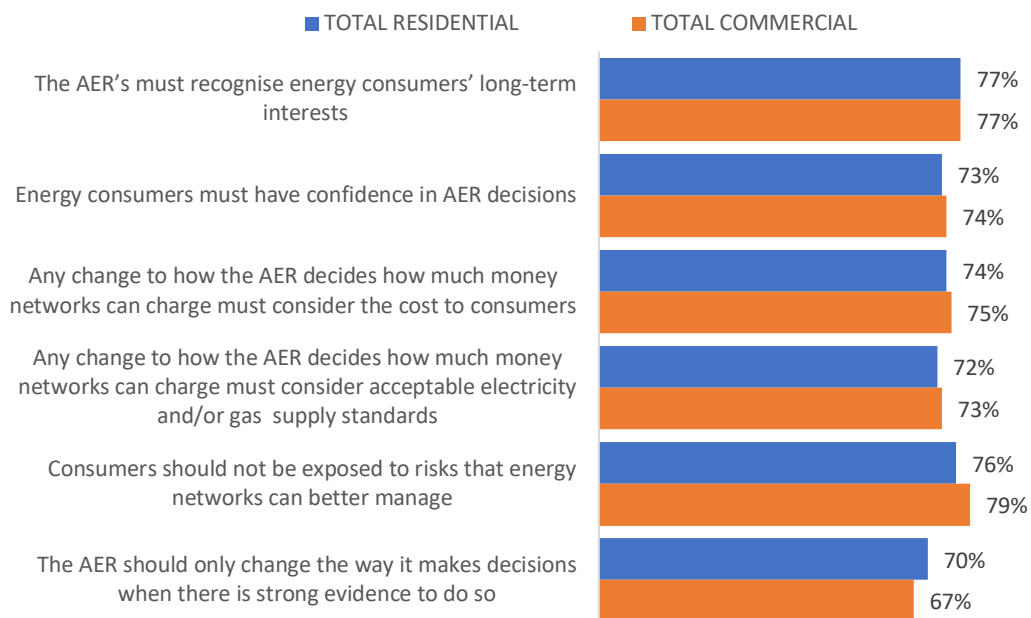
4.2 Consumer survey findings

4.2.1 CRG principles

Consumer Survey 1 tested a simplified version of its principles. Survey participants were asked to respond to the following question using a 5-point scale ranging from “strongly disagree” to “strongly agree” and including “neutral” as the mid-point. The order of the principles was randomised between survey participants to reduce the risk of bias due to any possible ordering effect. The following chart shows the proportion of survey participants who “agreed” or “strongly agreed” with each principle.

The CRG has a set of principles as the basis of its advice to the AER. To what extent do you agree or disagree with each?

Figure 4-1: Support for CRG’s principles



4.2.2 Perspectives on “long-term” interests

Understanding of electricity/gas pricing

At the start of Consumer Survey 1 energy consumers were asked:

What do you know about the way the price you pay for your electricity and/or gas is determined?

It is apparent from their open-ended feedback that both residential and commercial energy consumers have limited understanding of energy pricing, with 52% of residential and 53% of commercial consumers, answering “nothing”, “unsure”, “very little” etc.

Although a significant proportion (21%) are aware they pay for their energy according to the amount they use, only 8% of residential and commercial consumers commented that their bill comprises a fixed component and a variable component, with 4% of these specifically differentiating between network and retail charges.

They were also asked if they were aware of the AER. Among residential consumers awareness is modest, with only 36% of residential consumers indicating they had heard of the Australian Energy Regulator before they started the survey, compared to 67% of commercial consumers

Understanding of “long term interests of consumers”

Regardless of whether survey participants had heard of the AER, Consumer Survey 1 participants were advised as follows:

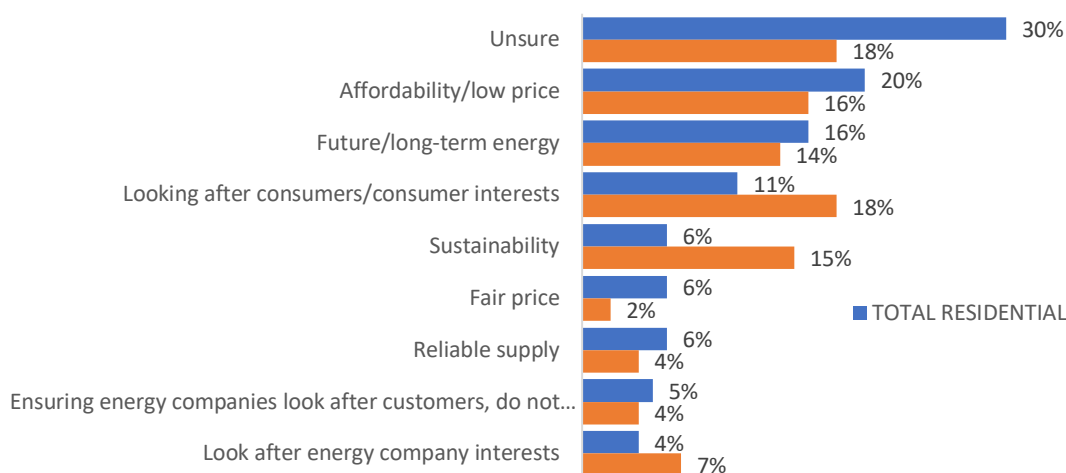
The AER determines how much money network companies can charge to efficiently build, maintain, and operate, and it must consider energy consumers’ long-term interests.

They were then asked:

What do you think “long-term interests of energy consumers” means?

Most survey participants attempted to answer this open-ended question (70% of residential consumers and 82% of commercial consumers). The key themes are summarised below:

Figure 4-2: Energy consumers’ understanding of LTIC



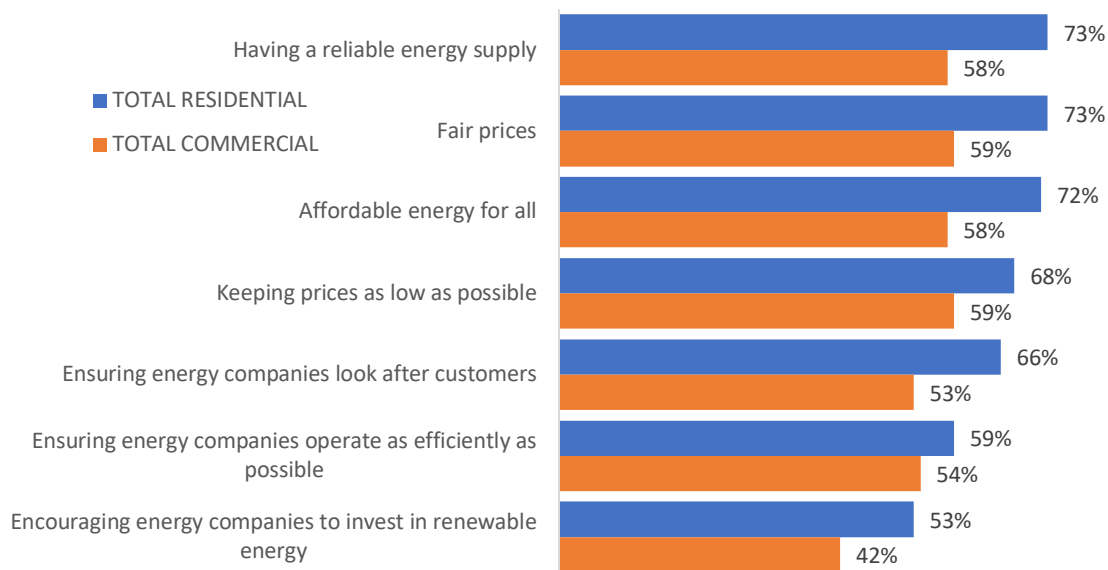
In Consumer Survey 2, participants were asked to rate the importance of seven factors that could be considered as “long-term interests of consumers”. Specifically, they were asked:

People have different views about the meaning of “long-term interests of consumers”. How important are each of the following “long-term interests” to you in relation to the amount of money networks can charge to efficiently build and maintain energy and gas networks?

They were asked to rate each factor on a 10-point scale where a rating of ‘1’ corresponded to ‘Not at all important’, and a rating of ‘10’ corresponded to ‘Extremely important’

As shown below, most pricing and reliability factors are very important to most consumers (i.e., they rated the factors as 9 or 10/10 on the importance scale). In contrast, considerations related to energy companies are less likely to be very important. Overall, smaller proportions of commercial customers rated any of the attributes as very important compared to residential consumers.

Figure 4-3: Importance of LTIC considerations
 Proportion who rated the factor as “very” important (9 or 10/10)



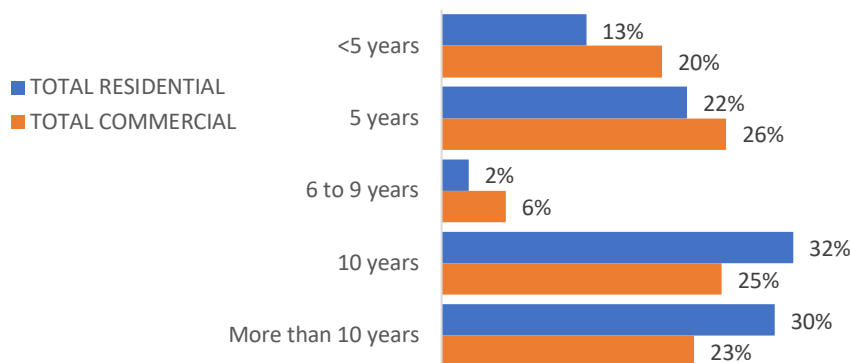
Defining “long term”

In Consumer Survey 2, participants were asked:

The Australian Energy Regulator must consider network prices in the long-term interests of consumers. When you think of the long-term in this context. How many years do you think of?

As shown below, 32% of residential consumers and 25% of commercial consumers associated “long-term” with a 10-year period, with 62% of residential consumers and 48% of commercial consumers associating “long-term” with a period of at least 10 years.

Figure 4-4: Energy consumers’ definition of “long-term”



The average and median periods defining “long-term” were:

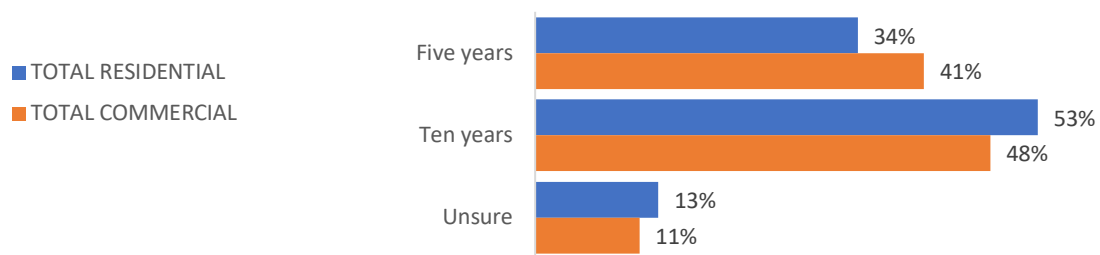
- Average:
 - 14.1 years among residential consumers
 - 12.5 years among commercial consumers
- Median
 - 10 years among residential consumers
 - 8 years among commercial consumers

Consumer Survey 2 participants were then asked:

When the AER determines the amount of money networks can charge, it could consider the long-term as five years or ten years, what period do you think makes more sense?

On balance both residential and commercial consumers were more likely to indicate a ten-year period as shown in the following figure:

Figure 4-5: In the context of energy regulation, whether consumers “long-term” as five or ten years



4.2.3 Consumer sensitivity to price changes

Top of mind reaction to an increase in the price of energy

Consumer Survey 1 participants were asked:

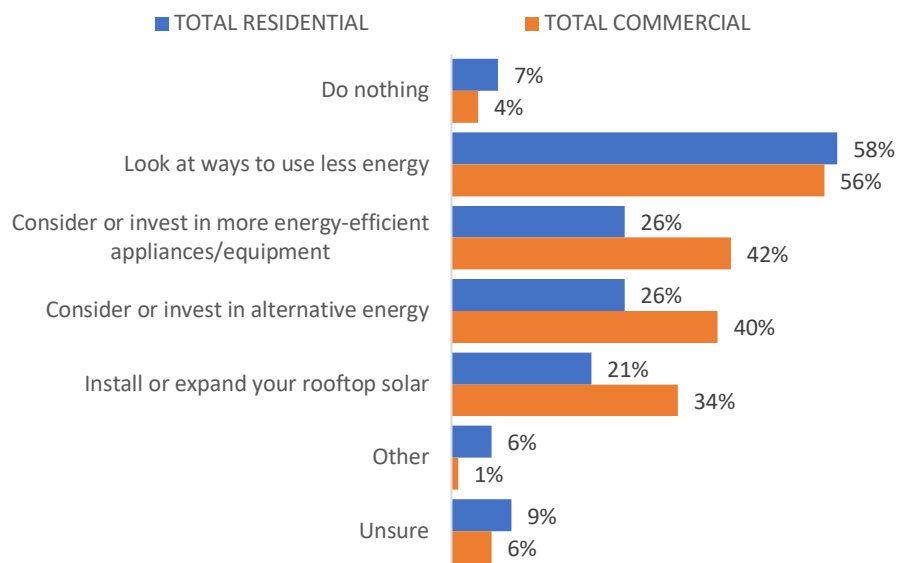
If the price you pay for energy increased, how would you react?

Most residential consumers (97%)²⁹ and commercial consumers (90%)³⁰ indicated they would act in some way if the price they pay for energy increased, with *looking at ways to use less energy* being the most common response among both groups.

²⁹ Calculated as 100% less the proportion of consumers who indicated they would do nothing or were unsure how they would react.

³⁰ Calculated as 100% less the proportion of consumers who indicated they would do nothing or were unsure how they would react.

Figure 4-6: Impact of potential price increase



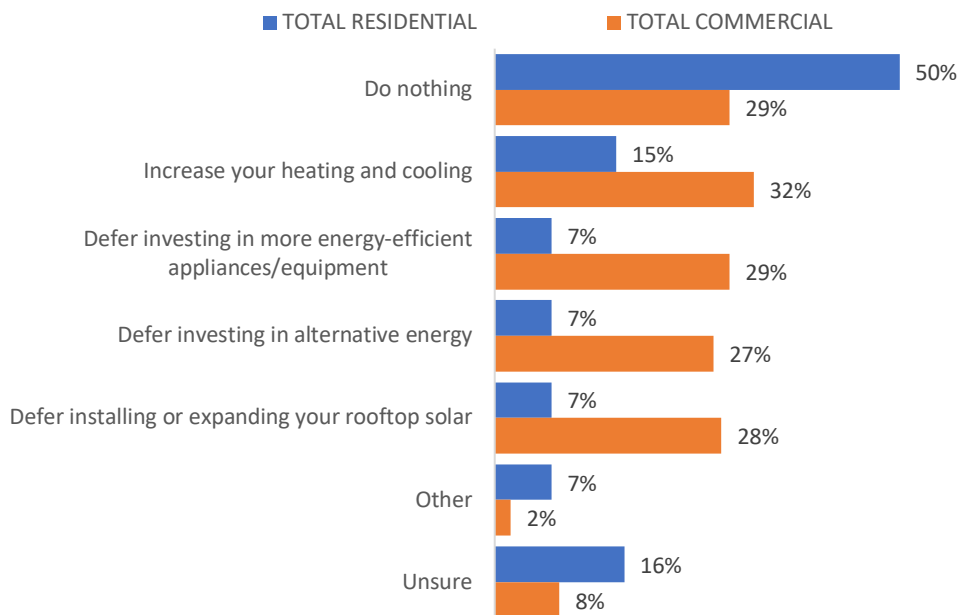
Top of mind reaction to a decrease in the price of energy

Consumer Survey 1 participants were asked:

If the price you pay for energy decreased, how would you react?

Half of the residential consumers surveyed (50%) and 29% of commercial consumers indicated they would do nothing if the price they pay for energy decreased.

Figure 4-7: Impact of potential price decrease



Consumers’ sensitivity and expected reaction to price changes

To further understand energy consumers’ sensitivity to price increases, Consumer Survey 2 participants were asked in either ascending or descending order of price increase the following question:

If the price you pay for energy increased by 1%/2%/5%/10%/15% and 30% how would you most likely react? or

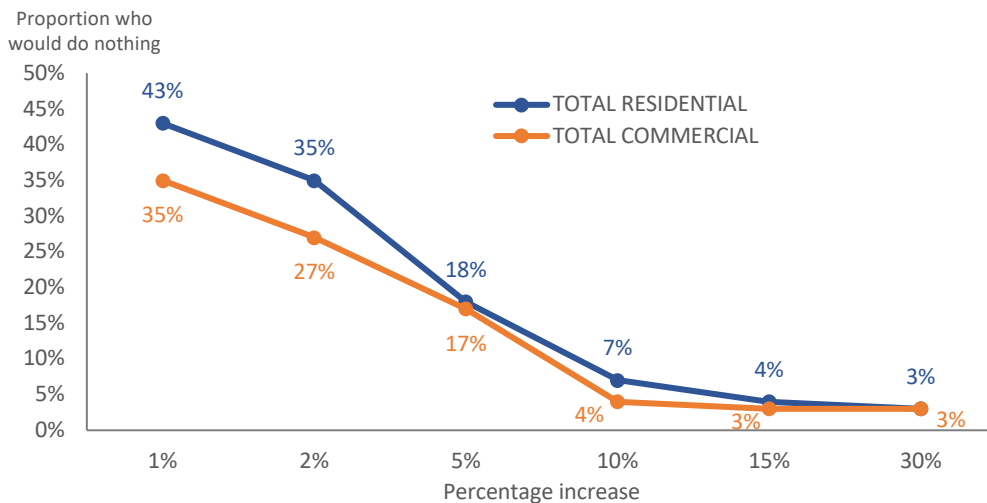
If the price you pay for energy increased by 30%/15%/10%/5%/2% and 1% how would you most likely react?

They were provided with a list of possible responses:

- *Do nothing*
- *Look at ways to use less energy*
- *Consider or invest in more energy-efficient appliances/equip*
- *Consider or invest in alternative energy*
- *Install or expand your rooftop solar*
- *Other*
- *Unsure*

The preliminary analysis focuses on the proportions of energy consumers who would “do nothing” at each of the price increase points. As expected, and shown below, the larger the price increase the smaller the likelihood that energy consumers would “do nothing”. Even with a 1% price increase a minority of residential consumers (43%) and commercial consumers (35%) indicated they would do nothing, i.e. the majority believe they would react in some way to even a small price increase.

Figure 4-8: Energy consumers’ sensitivity to energy price increases

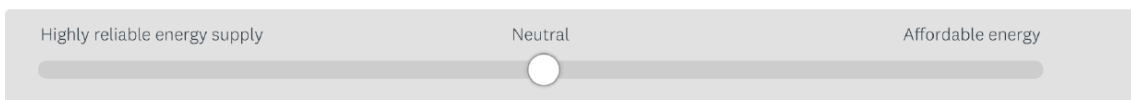


Trade-off between affordability and reliability

A key issue in considering the long-term interests of energy consumers is the trade-off between “affordability” of services and the “reliability” of supply, such that the more reliable supply energy consumers demand the more it will cost to supply.

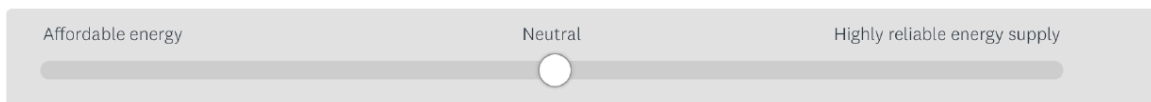
The CRG acknowledges the reality of this trade-off is not straightforward nor is the relationship necessarily directly linear. Nevertheless, to start to understand energy consumers’ priorities Consumer Survey 1 participants were presented with a nine-point “slider” question:

Thinking about your electricity and/or gas and the price you pay, to what extent do you prefer a highly reliable energy supply over affordable energy?



To reduce any bias, the question was randomly transposed, i.e.

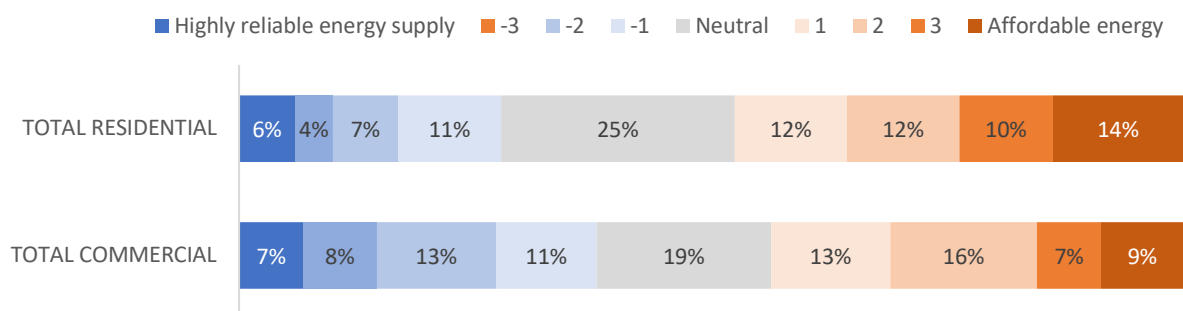
Thinking about your electricity and/or gas and the price you pay, to what extent do you prefer a affordable energy over a highly reliable energy supply?



On balance, residential and commercial energy consumers favour affordable energy over a highly reliable supply:

- Among residential consumers, 48% favoured affordable energy over a highly reliable energy supply, while 28% favoured a highly reliable energy supply (25% were neutral)
- Among commercial consumers, 45% favoured affordable energy over a highly reliable energy supply, while 39% favoured a highly reliable energy supply (19% were neutral)

Figure 4-9: Trade of between affordability of energy and reliability of service



4.3 Trust in the AER’s decisions

Trust in the AER’s decisions

In Consumer Survey 1, participants were advised as follows:

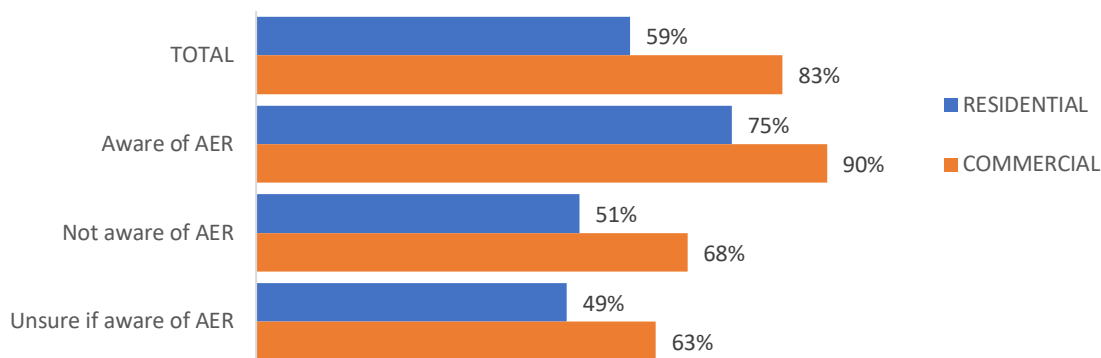
Some aspects of the Australian Energy Regulator’s work is technical, involving a detailed understanding of legislation, finance and economics.

They were then asked:

Do you support having an organisation like the AER make decisions in the long-term interests of energy consumers?

Most survey participants support the AER in its role, regardless of whether were previously aware of the AER, although support is greater among commercial consumers and those who were previously aware of the AER.

Figure 4-10: Proportion who support the AER in its role, regardless of awareness of the AER



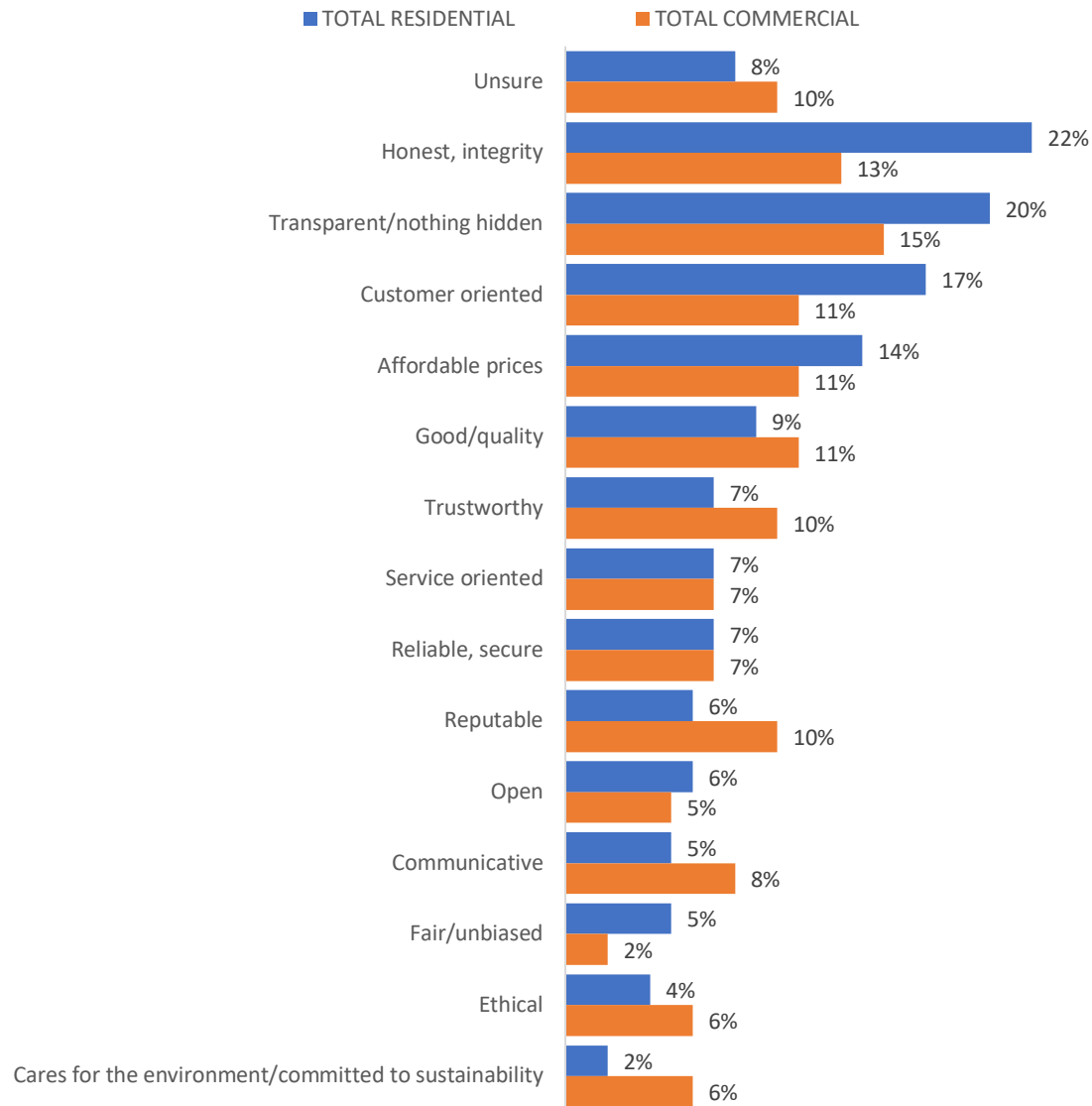
Consumer definition of “trust”

Consumer Survey 1 participants were then asked:

What do you look for in an organisation that you can trust?

The following chart summarises the key themes (mentioned by $\geq 2\%$ of survey participants) that emerged. Most importantly energy consumers associate trust with honesty and integrity, transparency and being energy consumer oriented.

Figure 4-11: How energy consumers define trust



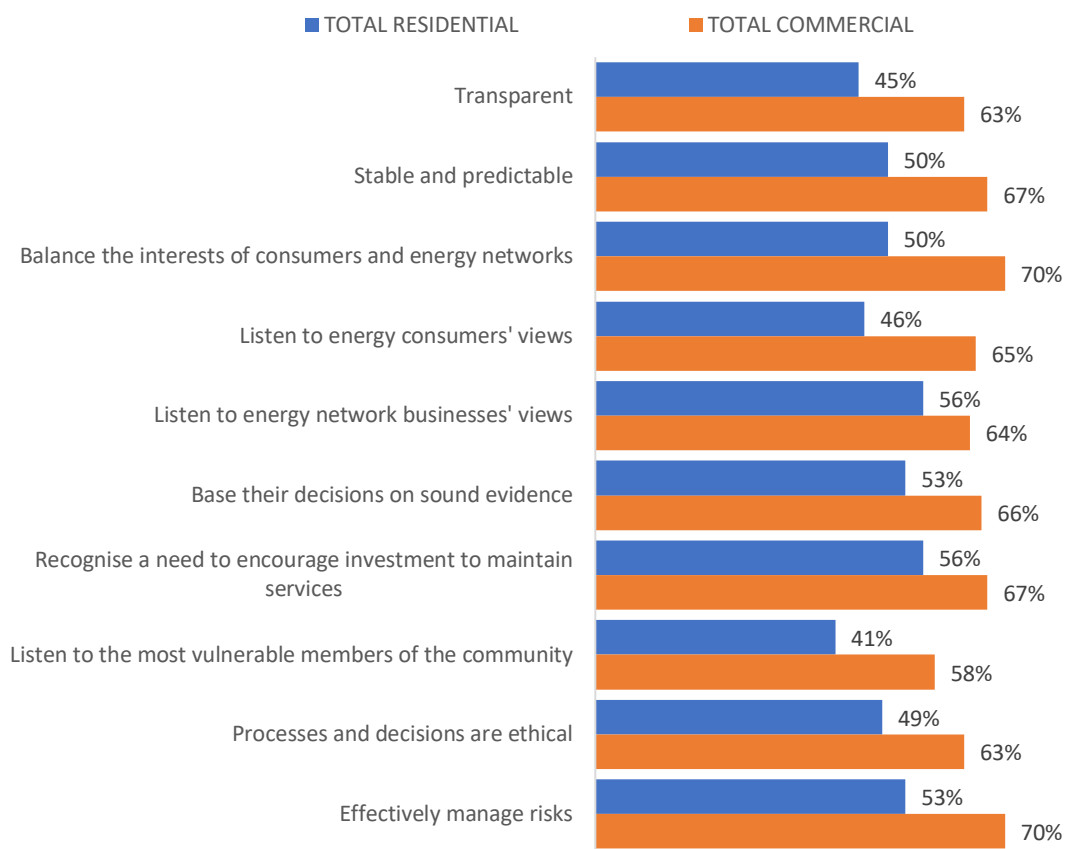
Energy consumers’ confidence in AER processes and decisions

Additionally, Consumer Survey 1 participants were asked to indicate their confidence in aspects of AER’s processes and decisions, on a five-point scale from “not at all confident” to “very confident”.

To what extent do you feel confident that the following apply in relation to the Australian Energy Regulator’s processes and decisions, given the electricity and/or gas services you receive and the price you pay?

The attributes were randomised between survey participants to reduce any risk of bias associated with the order in which the attributes were presented. The following chart shows for residential and commercial consumers the proportions who were “quite confident” or “very confident” in relation to the AER’s processes and decisions.

Figure 4-12: Energy consumers who are confident the AER’s processes and decisions are ...



Opportunities to increase consumer confidence

Given Consumer Survey 1 established that a considerable proportion of residential and commercial were not confident in the AER’s processes and decisions, Consumer Survey 2 sought to establish what would give energy consumers more confidence. Survey participants were asked:

Would you feel more confident if you had plain language information about the AER's regulatory processes and decisions?

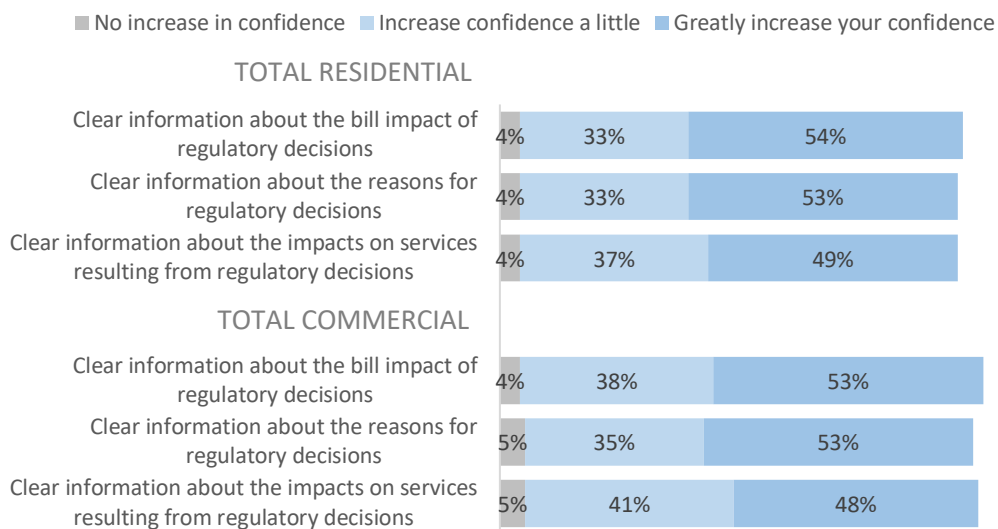
Overall, 80% of residential consumers and 81% of commercial consumers indicated plain language information would increase their confidence in the AER's regulatory processes and decisions.

Survey participants were also asked:

How would the following type of information change your confidence in regulatory decisions?

They were asked to comment on the likelihood of their confidence increasing if they were provided with clear information about the bill impact of regulatory decisions, information about the reasons for the decision and information about the service impacts of regulatory decisions. As shown below clear information on all these topics would increase energy consumers’ confidence in regulatory decisions.

Figure 4-13: Opportunities to increase energy consumers’ confidence in the AER’s processes and decisions



5 Independent investor evidence

5.1 Overview

In 2020, the CRG approached an investment consultant with an energy infrastructure background through its contact network to obtain an initial perspective on investment generally and RoRI parameters. The CRG gained valuable insights from that initial interview. Subsequently the CRG sought to broaden its insights by undertaking four additional interviews with independent investment consultants with the following objectives to understand:

- How independent investors consider and value investment in regulated networks as part of their overall portfolio of investments in the Australian market
- Perspectives in the context of investing in regulated Australian energy networks, on:
 - Constructing an investment portfolio
 - Assessing returns on equity
 - Regulated Asset Base (RAB) multiples
 - Return on energy network debt
 - Overall rate of return

Further details of the method are contained in Appendix D.

Investors were emailed detailed background notes (also in Appendix D) several days before their interviews to allow them to become familiar with the material and ensure the time allowed for the interviews was productive. The CRG wanted to ensure the independent investors considered in their responses both currently listed network companies and the AER's "pure play" benchmark efficient network. Investors recognised that listed networks were increasingly involved in non-regulated activities that may change their risk characteristics.

5.2 Key findings

The findings reported in this submission are top line, focusing on a headline analysis of results supported by key quotations from either transcribed recordings or written notes as supporting evidence of the headline comments. A more detailed analysis of the investor interviews and separate reporting of the findings will be provided to the AER in the coming weeks.

Key theme	Sub themes	Key findings	Sample quotations
<p>Regulated network assets in a balanced investment portfolio</p>	<ul style="list-style-type: none"> • Balanced asset classes • Diversity • Risk reduction • Low risk and low yield • Investment growth • Long investment timeframes 	<ul style="list-style-type: none"> • Investment portfolios need to include defensive, low risk and lower return assets • Expected returns from energy service networks might be as little as a third of market rates • Balance, diversity, and risk reduction are features in portfolio construction 	<ul style="list-style-type: none"> • <i>“A balanced portfolio will include a proportion of defensive assets from which a lower yield would be expected.”</i> • <i>“Regulated revenue assets have low risk equity, more defensive equity, and therefore you would expect a lower average rate of return, a lower expected rate of return is fine as long as you have a lower expected level of risk.”</i> • <i>“Other considerations on portfolio construction are diversity, predictable regulatory environment, and little competition”</i> • <i>“In discussing the legitimate interests of investors in regulated income stream assets such as network service providers, the important starting place should be a consideration of why investors choose to include this class of asset in their portfolio. This question is answered by noting that investment portfolios need to have a sufficient level of diversification to balance asset classes, and to minimise overall portfolio risk.”</i> • <i>“I would expect to earn a third of the return on that book compared to the risk assets, so 3% to 4% rather than 12%”</i> • <i>“Acceptable return from regulated income assets could be a return as little as a third as that from one in a fully speculative market. If you can, effectively treat it as a sovereign security”</i> • <i>“A balanced portfolio has about 25% of its investments as ballast or as protection against the others”</i>

Key theme	Sub themes	Key findings	Sample quotations
<p>Assessing equity returns</p>	<ul style="list-style-type: none"> • Equity beta • Earnings expectations • Asset stranding • Dividend Growth Model • Efficiency of investment returns • Stranded asset risk • Risk free rate 	<ul style="list-style-type: none"> • The Dividend Growth Model is overly subjective and not an appropriate tool for the AER to incorporate in the RoRI • Investments in revenue regulated assets have the character and low risk of sovereign bonds • Equity betas for gas and electricity assets likely to be similar • Dividend Growth Model is not suitable for use as a regulatory tool • CGS appropriate benchmark for risk free rate 	<ul style="list-style-type: none"> • <i>“In relation to plans to assess equity beta over five years instead of the longer term, with the longer term you tend to have a better feel for what's happening within a particular market”</i> • <i>“In contemplating efficient returns on equity in a business, from an investor's point of view, you're looking for efficiency in terms of low risk relative to expected return, so you're basically looking for a lower beta and lower volatility”</i> • <i>“It would surprise me if there was any significant difference in equity beta between gas and electricity assets, and given the order of approximations, I think they're open to engineering [the beta estimate].”</i> • <i>“The dividend growth model would require a much longer time frame than the regulatory period. Otherwise, it's hard to rationalise. The market is not priced around regulatory periods.”</i> • <i>“I think that 10-year Commonwealth Government Securities is a reasonable proxy for a risk-free rate when considering investment in these sorts of assets.”</i>

Key theme	Sub themes	Key findings	Sample quotations
<p>Regulatory asset base multiples</p>	<ul style="list-style-type: none"> • Price to book value • Search for yield • Low interest rates driving asset values • High RAB ratio transactions 	<ul style="list-style-type: none"> • In determining returns for regulated networks, it is appropriate to consider market RAB multiples • RAB multiples of 1.5 or more suggests the AER’s allowance is too high 	<ul style="list-style-type: none"> • <i>“In considering the value of an equity investment in regulated assets, I think that it is reasonable for the regulator to take into account RAB multiples in past sales and I think the CRG has an obligation to consider it.”</i> • <i>“It doesn’t surprise me that 1.5 RAB multiples are occurring because in the past ten years market rates have been falling; there’s been a search for yield. And so, people have been falling over themselves chasing these sorts of assets that pay a bit of a premium, they’re stable, but pay a premium over the fixed interest market which has seen very low returns.</i> • <i>“Should the AER take account of transactions with high RAB ratios? The answer is yes - in a sellers’ market the CRG should be strongly pursuing your side of the argument. I would even say under the current rate of return if transactions are being done at 1.5 times RAB, you [the AER] are obviously paying enough”</i>

Key theme	Sub themes	Key findings	Sample quotations
<p>Return on energy network debt</p>	<ul style="list-style-type: none"> • Debt gearing • Gearing and credit ratings • Role of Commonwealth Government securities (CGS) yields. • Debt risk premium over CGS yields • Use of the EICSI • Hybrid securities 	<ul style="list-style-type: none"> • BBB+ debt rating is seen as reasonable, • NSPs also benefit in their actual debt costs from a ‘halo’ effect • There is limited impact of gearing on NSPs’ credit ratings • The CGS curve is the ‘baseline’ for other yield curves • Support for the EICSI in regulatory rate of return decisions • Long duration benchmark for debt is appropriate given long-dated cash flows • Hybrid instruments can be useful in a commercial setting, but they also increase the risks for the debt provider and the costs of capital for the NSP • There were different views on how hybrids should be treated by the regulator 	<ul style="list-style-type: none"> • <i>“In the case of a pureplay regulated enterprise, BBB+ equivalent rating is appropriate.”</i> • <i>“It’s more than a Halo effect...Considering how cheap money is for those sorts of borrowers, it’s extremely cheap and therefore the yield is very low”.</i> • <i>“Gearing levels can be quite high [for a regulated NSP] because of the nature of regulated power assets in Australia. There is some perception from foreign investors that they are effectively semi-cash, sovereign credit.”</i> • <i>“A change in gearing does not make a huge difference to credit ratings [for a regulated NSP]”</i> • <i>“Conceptually, to get a benchmark efficient measure of debt, I would make sure that you’re measuring and adjusting a spread over the benchmark government curve as opposed to just averaging absolute debt in terms of a percent. You know the whole interest rate structure is driven by the government curve, the baseline curve.”</i> • <i>“The use of the EICSI for regulatory purposes can be broadly supported, however it does not have any application for market investors”</i> • <i>“In looking at the cost of debt, I wouldn’t move it to a 5-year term just because it’s a 5-year regulatory review. If you’re making adjustments, you’re observing because the cash flows of these businesses are long dated. Therefore, it’s appropriate to use a long duration benchmark.”</i> • <i>“They [hybrids] tend to be quite valuable at the end of the day, however, the cost is extraordinarily high. It’s a very expensive way of financing.”</i> • <i>“Inclusion of hybrid debt increases the financial risk to investors ...so you may need to apply a sort of different weighting ... some weighted average of your cost of debt capital and the cost of equity capital. It’s probably closer to the cost of debt”.</i>

Key theme	Sub themes	Key findings	Sample quotations
<p>Overall return on investment</p>	<ul style="list-style-type: none"> • Securities with sovereign characteristics • Abundant capital available • Long term investments with low volatility are attractive 	<ul style="list-style-type: none"> • Investors acquire interests which they expect to retain for a long-term • The sovereign characteristics of investments should be considered in regulation • long-term characteristics of investments should be considered in regulation 	<ul style="list-style-type: none"> • <i>“There is actually a lot of capital sloshing around looking for a home”</i> • <i>“We are deploying capital at multiples that I would have been very uncomfortable with three or four years ago. Very, very uncomfortable with.”</i> • <i>“A further important insight into the legitimate interests of investors is that in my experience investors acquire interests which they expect to retain for the long-term and this is especially true of lower volatility lower return shares such as those in regulated network service providers”</i>

Appendix A: Legislative framework

Table A-1: NEL³¹ provisions related to consumer engagement

Section	Provision	Relevance to consumer engagement
18I (3)	AER RoRI Obligation	Achievement of the national electricity objective to the greatest degree
18I5 (a)	AER must have regard to:	Revenue and pricing principles
18I5 (b)	AER must have regard to:	Other information the AER regards as relevant
18L (a)	AER must have regard to	advice, recommendations or submissions given by a consumer reference group;
18M (1)	Before making RoRI AER must	Establish CRG to help AER implement an effective consumer consultation process for making the proposed instrument
18N	Consumer Reference Group	<p>(1) A consumer reference group for making a rate of return instrument--</p> <p>(a) is to consist of the members appointed by the AER; and</p> <p>(b) may carry out its activities, including giving advice or recommendations to the AER about the instrument, in the way it considers appropriate.</p> <p>(2) Without limiting subsection (1)(b), the consumer reference group may--</p> <p>(a) consult with consumers of electricity; and</p> <p>(b) facilitate consumer engagement in the process for making the instrument; and</p> <p>(c) make written submissions to the AER about the content of the instrument and the process for making it.</p> <p>(3) The AER must publish on its website any written advice, recommendations or submissions given to it by the consumer reference group.</p>

³¹ *National Electricity (South Australia) (New National Electricity Law) Amendment Act 2005*, 2005, South Australia

Table A-2: NEO/NGO consumer consultation elements, revenue and pricing principles and stakeholders identified by the Independent Panel³²

Section	Provision	Consequence	Consultation
7	NEO/NGO promote efficient investment and operation and use of networks	In determining investment efficiency, the AER also needs to enquire into consumption efficiency	The firms and individuals who comprise the regulated industries: <ul style="list-style-type: none"> • Debt investors, equity investors • Managers and employees of regulated firms • Consumers large and small, and the practitioners who represent their interests before regulatory tribunals
7A(6)	Regard for costs and risks of under and over investment	Overinvestment or underinvestment could cause the allowed rate of return to deviate from the market cost of capital and the rate of return may not achieve the legislative objectives	The firms and individuals who comprise the regulated industries: <ul style="list-style-type: none"> • Debt investors, equity investors • Managers and employees of regulated firms Consumers large and small, and the practitioners who represent their interests before regulatory tribunals
7A(7)	Regard for costs and risks of under and over utilisation	Overutilisation or underutilisation could cause the allowed rate of return to deviate from the market cost of capital and the rate of return may not achieve the legislative objectives	The firms and individuals who comprise the regulated industries: <ul style="list-style-type: none"> • Debt investors, equity investors • Managers and employees of regulated firms Consumers large and small, and the practitioners who represent their interests before regulatory tribunals

³² *New South Wales Consolidated Acts, National Electricity (NSW) Law – Sect 18F Definitions, n.d.,*

Appendix B: CRG engagement activities

Engagement activities to date

Informing

To date the CRG has informed consumer representatives about its role and activities by:

- Preparing and publishing information sheets and bulletins on the AER website
- Presenting information to consumer representatives to RoRI matters
- Inviting and encouraging consumer representatives to attend AER public forums
- Providing basic information to consumers in its consumer surveys, including links to published information on the AER website
- Preparing background information for independent investment advisors

Consulting

- Undertaking surveys of residential and SME commercial energy consumers to gather evidence of their perspectives and support for the CRG's principles
- Initiating a presence on the Choice Community platform
- Meeting with Energy Networks Australia and AER Investor Reference Group representatives on several occasions to discuss aspects of the RoRI and consider areas of divergence and convergence
- Having "conversations" (semi-structured interviews) with independent investor advisors³³ to establish broader investor perspectives

Involving

- Meeting with consumer representatives, individually and in group settings, to explore and understand their support for the CRG's principles and establish their perspectives on technical aspects of the RoRI and incorporated relevant aspects into its submissions.
- Initiated several "Ambassadorial meetings"³⁴ as part of an ongoing outreach program to representatives of business consumers, vulnerable customers and others, such as:
 - ◊ South Australian Council of Social Service (SACOSS)
 - Business SA
 - Chamber of Commerce and Industry Queensland

³³ See Note 1.

³⁴ These are CRG meetings with stakeholder groups unrelated to the AER's process. Our engagement aim is to broaden stakeholder awareness of the AER's RoRI process and the relevance to consumers of decisions, and also seek their feedback.

- Undertaking a workshop with consumer representatives to help inform the CRG's submission on the AER's three omnibus papers

Engagement activities in planning

The following engagement activities are in planning, subject to CRG resources and priorities

- Additional interviews with independent investors to establish broader investor perspectives in relation to specific elements of the RoRI
- Building the discussion on the Choice Community platform to reach more “informed” and engaged energy consumers.
- Further ambassadorial meetings, including engagement via NEMchat³⁵
- Business consumer survey through Chamber of Commerce and Industry Queensland CCIQ's quarterly Pulse Survey
- CRG presentation on RoRI to the Consumer Roundtable, being arranged by SACOSS (tentative)
- Consumer representative masterclass to:
 - Introduce participants who are new to rate of return issues to the types of discussions that surround the RoR
 - To equip participants with the skills to be able to contribute to rate of return consultations
 - To start to uncover possible consultation inputs on rate of return consultations among a broader group of consumer representatives

Possible future engagement and research activities

The CRG is contemplating further engagement and research to explore aspects of consumption efficiency which to date, have not been addressed in detail by the AER or other stakeholders. This engagement and research may include investigating the impact of the AER's decisions on consumer-based outcomes such as trends in:

- Energy demand by different consumer segments and the drivers of any trend
- Over- or under-investment in and utilisation of the network and the drivers of any trend
- Residential, commercial and industrial energy consumers investment in distributed energy resources, energy efficiency equipment, grid disconnection.
- Overall social welfare and economic efficiency outcomes.
- NSPs access to debt and equity capital, and investment of this capital in network service levels

³⁵ Groups.io, main@nemchat.groups.io, n.d.

NEMchat was formed in 2004 to enable individuals representing energy consumers to communicate and discuss issues relating to the Ministerial Council on Energy's (now the COAG Energy Council) National Energy Market (NEM).

The CRG notes that the AER acknowledges in its *Rate of Return 2018 Explanatory Statement* that the legislation requires it to consider the 'twin' objectives of investment and consumption efficiency and goes to some length to respond to this.³⁶ In addition, the AER's May 2021 position paper on the long-term interests of consumers³⁷ acknowledges this is an area requiring further research. The CRG welcomes the opportunity for further engagement and research with the AER to pursue this outcome.

³⁶ AER, *Rate of return instrument, 2018 Explanatory Statement*, December 2018, pp. 37-40

³⁷ AER, *Rate of return, 'Assessing the long-term interests of consumers', Position paper*, May 2021, pp. 5-6

Appendix C: Details of CRG's consumer research

Choice Community

The Choice Community is an online form where individuals and groups can post questions and topics for discussion. Choice has assisted the CRG in establishing its presence. The CRG is a learning phase with this form of engagement in terms of the content and tone of posts that will encourage meaningful engagement using this platform.

To date the CRG has posted the following:

1. Post 1: Do you think energy prices are too high, about right or too low? (19 August 2021)

- a. *Poll question: Do you think electricity and gas prices are too high, about right or too low?*
- b. *The Australian Energy Regulator (AER) is a government organisation that determines the amount of money energy networks can charge to efficiently build and maintain the networks.*
 - i. *What do you know about the AER and how it works?*
 - ii. *Do you think the AER is doing a good job in deciding network costs?*

2. Post 2: What do you think the long-term interests of consumers are in relation to electricity and gas "poles and wires" network services? (23 August 2021)

The law and rules that sets out how much electricity and gas networks can charge for their "poles and wires" services says the objective is to meet the long-term interest of consumers.

Questions

- *Do you think the regulator is meeting the long-term interests of consumers in the way it works?*
 - *What do you think the long-term interests of consumers are in relation to electricity and gas "poles and wires" network services?*
 - *How would you know if the regulator is doing a good job?*
- 3. Post 3: What do you think the long-term interests of consumers are in relation to electricity and gas "poles and wires" network services? (26 August 2021)**

The AER in deciding how much to allow electricity and gas network service businesses to charge for their services, needs to take many things into account.

When deciding on how much the network services can charge to provide their services, how important are the following consumer interests to you? Let us know your thoughts on the comments below.

- *Affordable energy for all*
- *Keeping prices as low as possible*
- *Having a reliable energy supply*

- *Fair prices*
- *Ensuring energy companies look after customers*
- *Ensuring energy companies operate as efficiently as possible*
- *Encouraging energy companies to invest in renewable energy*

A small number of consumers have posted replies to these questions so far and the CRG is monitoring the feedback and intends to analyse the feedback in due course as more consumers engage.

Consumer surveys

The CRG was responsible for preparing the questionnaires for Consumer Survey 1 and Consumer Survey 2. For both surveys, ECA, 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 Researchify³⁸ online panel. The CRG has analysed the survey data and has produced a report on the findings from Consumer Survey 1.

In June 2021, the CRG conducted an *initial* online survey (Consumer Survey 1) of a representative sample of 1,000 residential energy consumers³⁹ and 200 commercial consumers⁴⁰ 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,⁴¹ and as such it 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 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. ECA, on behalf of the CRG, engaged Indeana to set up the online survey and facilitate

³⁸ For details see <https://www.researchify.com.au/wdyt-research-panel>.

³⁹ 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

⁴⁰ In line with the ECA's small business definition applied to its *Consumer Sentiment Survey*

⁴¹ 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>)

the data collection. Indeana managed the age and gender quotas within State. Indeana sourced survey participants from the Researchify⁴² online panel.

The CRG has produced a detailed survey report which it intends to share with the AER and other stakeholders when it has also finalised the results of Consumer Survey 2.

In August 2021, the CRG conducted a *follow-up* online survey (Consumer Survey 2) involving a sample of 1,500 energy consumers comprising 1,257 residential energy consumers and 240 SME commercial energy consumers. Three-hundred individuals who participated in Consumer Survey 2 had also participated in Consumer Survey 1.

Data collection for Consumer Survey 2 was only completed late in August 2021, so data from the second survey is yet to be fully analysed⁴³. With the time available we have included some results in this submission and will provide the AER with a more detailed report in the coming weeks.

⁴² For details see <https://www.researchify.com.au/wdyt-research-panel>

⁴³ The CRG expects to fully analyse the results from Consumer Survey 2 during September 2021 and will use the findings from the survey, along with other consumer and stakeholder evidence to inform additional advice to the AER, particularly around building consumer trust and confidence in regulatory processes and outcomes.

Appendix D: Details of CRG's investor interviews

Participants

Interview	Participant characteristics
Interview 1 (2020)	Equity research analyst, utilities expertise
Interview 2 (August 2021)	CEO/CIO of industry superannuation fund with relevant professional interests in funds administration, risk management, wealth management and portfolio management
Interview 3 (August 2021)	Grant Spencer, Adjunct Professor and former Deputy Governor of the Reserve Bank of New Zealand ⁴⁴
Interview 4 (August 2021)	Investor with significant experience in investment manager, private equity and credit investment, banking, finance, asset lending
Interview 5 (August 2021)	Former CEO of superannuation company, various roles as company director and now chair of an industry superannuation fund with relevant professional interests in investments, risk management, wealth management and portfolio management





Method


- The CRG contacted and scheduled appointments with participants.
- The first interview conducted in 2020, was relatively informal.
- To assist participants in the subsequent 2021 interviews, the CRG developed an interview conversation guide and shared this with participants in advance of the interviews. The conversation guide included:
 - Background information about the AER, the rate of return process, the CRG and reasons for the CRG's interest in independent investor perspectives, including links to the AER's previous rate of return papers
 - An outline of the four discussion topics, which included some more technical information and key questions to guide the interviews
- Interviews were conducted online using Zoom
- One CRG member led the interview, with one or two others present as observers and notetakers
- For the interviews 3 to 5, permission was sought to record the interviews, so they could later be transcribed – two participants agreed to having their interviews recorded and the CRG, with the ECA's assistance had these interviews transcribed
- Interviews lasted between 60 and 90 minutes.
- The CRG sought to keep the discussion open and centred on the interests of participants and draw on their real-world experience. As a result, not all topics were covered in each interview.

⁴⁴ Participant gave permission to be named and quoted directly.

Interview guide

The following guide was provided to Interview participants, 3, 4, 5 and is a modified version of the Interview 2 guide.

 <p>Information for conversation with independent investment specialists</p> <p>1 Background</p> <p>The Australian Energy Regulator's role</p> <ul style="list-style-type: none"> The Australian Energy Regulator (AER) determines the annual revenue allowances for regulated gas and electricity networks in eastern Australia. <ul style="list-style-type: none"> The value of these regulated network assets is approximately \$110 billion dollars. The AER's allowed rate of return is a significant component of the revenue allowance network owners can expect to achieve over a five-year regulatory determination period. The AER is currently developing a 'Rate of Return Instrument' (RoRI) that will apply to all its regulatory revenue determinations made from the start of 2023 to the end of 2026. <ul style="list-style-type: none"> The final RoRI will be published in late 2022. The AER must set an efficient rate of return that reflects the capital requirements of a theoretical 'pure play', 'benchmark' efficient firm operating in Australia and providing only regulated network services. The AER must, by law, make its decision to best achieve the national electricity and gas objectives (NEO, NGO, LG), to determine the rate of return to achieve efficient investment in, and efficient operation and use of electricity or gas, in the long-term interests of consumers.² Over the last year, the AER has published various 'working papers' on rate of return issues. The AER's current papers which set out the AER's preferred position on rate of return issues and are open for consultation are as follows:³ <ul style="list-style-type: none"> Rate of return - Debt draft working paper - July 2021 Rate of return - Equity draft working paper - July 2021 Rate of return - Overall rate of return draft working paper - July 2021 <p>Consumer Reference Group (CRG) role</p> <ul style="list-style-type: none"> In 2020, the AER appointed the CRG under the National Gas and Electricity Laws, to provide advice on consumer perspectives related to processes and decisions associated with the RoRI. The CRG forms its views by engaging with energy consumers and other stakeholders, including industry bodies and investors to establish evidence of their interests and preferences. The key areas of current interest to the CRG arising from the AER's current papers relate to estimating an efficient benchmark for: <ol style="list-style-type: none"> the allowed return on equity <p>¹ National Electricity (South Australia) (New National Electricity Law) Amendment Act 2005, South Australia (2005)</p> <p>² See https://www.aer.gov.au/networks/pipelines/guidelines/schemes/models/reviews/rate-of-return-ombus-papers</p> <p style="text-align: right;">1</p>	 <ol style="list-style-type: none"> the allowed return on debt the optimal gearing ratio (debt/equity) the optimal term and structure of company debt <p>CRG interest in independent investor perspectives</p> <p>The CRG wishes to understand:</p> <ul style="list-style-type: none"> How independent investors consider and value investment in regulated networks as part of their overall portfolio of investments in the Australian market Independent investor perspectives on the above four issues in the context of investing in regulated Australian energy networks <p>The CRG will use this feedback to help inform part its overall advice to the AER, in which we seek to balance the reasonable interests of investors with the long-term interests of energy consumers. To assist, we have outlined a series of guiding questions. Please feel free to make any additional comments as we go through each section.</p> <p>2 Discussion outline</p> <p>2.1 General questions</p> <p>Before we consider the issues outlined by the AER, we are particularly interested here on hearing how you would normally construct an investment and if/how investment in regulated Australian energy networks might fit into this portfolio.</p> <p style="text-align: right;">2</p>
 <ol style="list-style-type: none"> Have you made or recommend investments (equity or debt) in revenue regulated assets? <ol style="list-style-type: none"> If so, what class of regulated assets would you invest in as part of an investment portfolio? Have you made or recommended investments (equity or debt) in unregulated infrastructure assets? What considerations and practices would you recommend in building an investment portfolio? Does your advice vary for a retail investor or an institutional investor, such as a superannuation fund? Thinking about investment in regulated companies that own/operate gas or electricity networks energy networks where the AER regulates the revenue: <ol style="list-style-type: none"> What are the benefits of including such an investment in the portfolio? What are the risks? The regulated rate of return for energy networks is usually lower than returns that for other investments in the market: <ol style="list-style-type: none"> Why do you think the AER would allow a lower return than the market average return? Would that impact on your decisions to invest or recommend investment in regulated energy networks? Why/Why not? Do you think it is reasonable for the AER to allow a lower-than-average return for these businesses? Are there any other general issues we should consider? <p>2.2 Issues raised by the AER in its draft working papers</p> <p>2.2.1 Return on Equity</p> <p>Currently, the AER's overall allowed rate of return is based on a gearing ratio of 60% debt and 40% equity for its theoretical benchmark efficient regulated network entity, that is, a 'pure play'³ benchmark efficient network entity, owned and operated in Australia, and providing only regulated network services.</p> <p>The AER, like most other energy regulators in Australia and overseas, estimates an efficient return on equity using the original Sharpe-Lintner Capital Asset Model (SL-CAPM), whereby the efficient return on equity is calculated as a function of three independent parameters:</p> <ul style="list-style-type: none"> The risk-free rate (currently based on the observed 10-year Commonwealth Government Securities (CGS)) The equity beta for the regulated network industry (currently calculated as historical excess returns on a portfolio of ASX listed regulated network assets) <p>³ By 'pure play', we mean an entity that only, or very largely, provides regulated network services. Currently the closest companies to a pure play regulated network company are AusNet Services (ANS) and Spark Infrastructure (SI) with some 80% - 90% of revenue coming from the provision of network services in Australia.</p> <p style="text-align: right;">3</p>	 <ul style="list-style-type: none"> The Market Risk Premium (currently calculated using long term historical average returns from ASX equity market) <p>NB: The AER is seeking to estimate efficient returns to equity ex ante, <i>ie</i>, it is estimating efficient future returns.</p> <p>Various stakeholders are proposing changes to each of these parameters.</p> <div style="border: 1px solid black; padding: 5px;"> <p>The CRG is interested in understanding whether you use a capital asset pricing model, how you assess each of these CAPM parameters to assess efficient returns for a pure play benchmark efficient regulated network.</p> <ol style="list-style-type: none"> What approach do you use when estimating an efficient return on equity for a business? Thinking about a pure play efficient regulated network business operating in Australia, would you use the same approach to estimating the future efficient cost of equity for the business? What other factors would you consider? </div> <p>Supplementary questions are appended.</p> <p style="text-align: right;">4</p>



2.2.2 Return on Debt

The AER has been collecting information from network owners for many years to assist it in estimating an efficient average term of the debt portfolio, the credit ratings of the business and the cost of this debt to the business. Based on this long-term data, the AER established the benchmark firm as BBB+ (or equivalent), with an average debt tenor of 10 years.

The AER then used 10-year yield curve data from three sources⁴ to determine an average cost of debt in a particular year. Using this annual data, the AER applies a rolling 10-year average of the annual observed market debt costs to estimate the forward cost of debt for each year of a network's determination period.⁵

Over the last four years, the AER has collected more detailed information on network company's actual debt portfolios. The AER has observed that the average tenor of this debt is currently less than 10 years (8-9 years), and the average cost of this debt is less than the allowance calculated under the AER's current methodology. On the advice of a leading financial analyst firm, the AER constructed an index, the Energy Infrastructure Credit Spread Index (EICS), which is updated every year.

The AER is considering how this lower tenor and debt cost that has been revealed in the EICS) can best be reflected in the AER's current return on debt allowance.

The CRG notes that the network businesses dispute the AER's observations and conclusions. Amongst other matters, the networks say that the AER has not taken proper account of various debt and hybrid instruments that they use to fund their activities.


1. What approach do you use when estimating an efficient cost of debt for a business?
2. Thinking about a pure play efficient regulated network business operating in Australia, would you use the same approach to estimating the future efficient cost of debt for the business?
3. What other factors would you consider?

Supplementary questions are appended.

⁴ Australian Energy Regulator, *Rate of Return Draft Debt Omnibus Paper*, July 2021, p. 1-7. The three sources are Bloomberg, Reserve Bank of Australia and Thomson Reuters.

⁵ Before 2013, the AER assessed the cost of debt at the start of each determination based on the prevailing market debt cost. In 2013, the AER switched to adopt trailing average approach in 2013 to better reflect the structure of network debt portfolios and to provide more stable outcomes on the cost of debt. The transition to this approach is ongoing.

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2.2.3 Gearing ratios and debt instruments

Based on historical data the AER currently assumes a gearing ratio for a benchmark efficient network business of 60% debt and 40% equity. The AER has observed from company data that in recent years the ratio for regulated network companies appears to be closer to 55% debt and 45% equity. The AER's analysis excludes assessment of most subordinated debt instruments.


The AER is considering whether it should change the benchmark debt ratio to 55%/45% based on these recent observations.

Some stakeholders observe that such a change would make little difference either to the company's credit rating or the overall cost of capital. They have also highlighted that the AER's assessment is wrong because it excludes subordinated debt.

1. How would you assess the optimal capital structure for a business?
2. Thinking about a pure play efficient regulated network business operating in Australia, would you use the same assessment criteria?
3. How would you typically assess various hybrid/subordinated debt?
4. Do such hybrid instruments increase the financial risk of a business and if so, how?

Supplementary questions are appended.

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Appendix: Supplementary questions


Return on Equity

Various stakeholders are proposing changes to each of the parameters in the SL-CAPM model. The CRG is interested in understanding more about whether you use a capital asset pricing model, and how you assess each of these parameters of the CAPM in the context of assessing efficient returns for a pure play benchmark efficient regulated network.

The AER is seeking to estimate efficient returns to equity *ex ante*, i.e. it is estimating efficient future returns.

1. When considering the return on equity, do you use the SL-CAPM?
 - a. If yes, how do you use it (e.g. as a guide, or with other tools)?
2. If no, why and what other models/tools/information do you use to inform your assessment of the efficient return on equity?
3. Is it reasonable for the AER to use the SL-CAPM when estimating the efficient rate of return on equity for a regulated efficient energy network? Why/why not?
4. Is the 10-year CGS a reasonable proxy for the risk-free rate when considering investment in energy network assets with long asset lives? Why/why not?
5. Would a five-year CGS be more appropriate to use in the SL-CAPM model given the AER's revenue determinations are reset every five years? Why/why not?
6. Some stakeholders have proposed using AAR bond returns as a better proxy for the risk-free rate. Do you agree with their proposal? Why/why not?
7. Looking at the estimation of the equity betas: In considering expected returns from a firm, do you include some estimation of the relevant equity beta?
 - a. If so, how do you estimate the relevant equity beta for a firm?
8. The AER currently uses the average of historical excess returns data to estimate the equity beta of an efficient regulated energy network. Do you think that is reasonable? Why/why not?
9. There are now a very limited number of listed pure play regulated network companies now listed on the ASX. Do you think it is reasonable for the AER to include other data in its estimation of the equity beta for these firms? The AER could include
 - a. Analysis of other infrastructure companies that are not revenue regulated
 - b. Overseas regulated networks, even if under different regulatory frameworks
10. If the equity betas across the Australian equities market range from 0 to 2, with 1 being the average of the market overall, 0 being no systematic risk and 2 being high systematic risk, where would you estimate the systematic risk (equity beta) for a pure play regulated efficient benchmark energy network? Why?
11. Do you consider that electricity network firms and gas network firms should have the same equity beta? Why do you say that?
12. Looking at the estimation of the Market Risk Premium (MRP): In considering expected returns from a firm, do you include some estimation of the MRP for the Australian ASX market as a whole?
 - a. If so, how do you estimate the relevant MRP?

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13. The AER's current approach uses the average historical market returns data to estimate the MRP. Do you think that is a reasonable approach? Why/why not?
14. Some stakeholders consider that the AER should use a different model to estimate the MRP, such as the Gordon Dividend Growth Model (DGM). They say that this would improve the AER's estimate of the MRP, in the context of firms holding long lived assets:
 - a. Do you use such models when estimating future market returns?
 - b. Is the DGM an appropriate model to assist the AER in estimating average future market returns over the longer term?
 - c. What are the risks and benefits to consumers of the AER using the DGM in the regulatory context?
15. Looking at the overall return on equity, the AER's current approach means that the total allowed return on equity will rise and fall largely in conjunction with the prevailing risk-free rate. As an investor, do you think this is reasonable?
16. How would you assess the reasonableness of the overall return on equity for the gas and electricity networks?
17. Should the AER use other market data as a cross check on its return on equity decision?
 - a. If so, what cross checks on the overall return on equity would be appropriate?

Return on debt and gearing

Currently, the return on debt makes up 60% of the total allowed returns. This estimate of the gearing ratio is based on historical observations of the capital structure of regulated network businesses. However, the AER has observed that in recent years this ratio has declined to around 55%. The AER has also claimed that the actual cost of debt for the regulated networks is lower than the current regulatory allowance.

Based on these observations, the AER's expert consultant has constructed an index that captures this trend for shorter debt tenor and lower debt costs; the Energy Infrastructure Credit Spread Index (EICS). The AER is considering how this index might be used to adjust the allowed return on debt to better reflect current capital management strategies.

The CRG notes that the network businesses dispute the AER's observations and conclusions. Amongst other matters, the networks say that the AER has not taken proper account of various debt and hybrid instruments that they use to fund their activities.

1. When considering the efficient cost of debt for an efficient firm, what factors do you consider?
2. Do the ratings and comments from credit agencies such as Bloomy's, influence your views?
3. What other data sources do you use?
4. Thinking about a benchmark efficient network company, do you think a credit rating of BBB+ is reasonable guide to the cost of its debt. Why/why not?
5. If the AER observes that the networks' cost of debt is lower than the debt cost allowed by the AER, do you think the AER should adjust its approach to reflect this (e.g. use the EICS)?
6. Should consumers share in the benefit of lower cost debt than the AER's approach provides?

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7. Do you consider a gearing ratio of 60% debt/equity is consistent with an efficient capital structure for a regulated network entity?
8. If networks increase or decrease their gearing ratio, should the AER change its assumption of 60% gearing to align with this new data, or retain a more stable 'average' view over time?
9. If a network's gearing changed by + or - 5% would you expect this to change its credit rating (all other things being equal).
 - a. What about a change of +/- 10%?
10. Some stakeholders claim that the AER should classify hybrid, or subordinate debt instruments as 100% debt. Others say 50% debt and 50% equity. Others say they should be excluded. There are many forms and terms of subordinated debt and it is not always clear how they should be treated. What approach do you use in assessing a business's financial risk and future debt costs?

References

Australian Bureau of Statistics, 2016 Census of Population and Housing, Table Builder, 1 October 2020, available from <https://www.abs.gov.au/websitedbs/censushome.nsf/home/tablebuilder>

Australian Energy Regulator, *Rate of return, 'Assessing the long-term interests of consumers', Position paper*, May 2021, available from https://www.aer.gov.au/system/files/AER%20-%20Rate%20of%20return%20and%20assessing%20the%20long%20term%20interests%20of%20consumers%20-%20Position%20paper%20-%202021%20May%202021_1.pdf

Australian Energy Regulator, *AER Stakeholder Survey 2018*, 14 December 2018, available from <https://www.aer.gov.au/publications/corporate-documents/aer-stakeholder-survey-2018>

Australian Energy Regulator, *Better regulation*, n.d., available from <https://www.aer.gov.au/networks-pipelines/better-regulation>

Australian Energy Regulator, *Consumer engagement guideline for network service providers*, effective 1 August 2013, available from <https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/consumer-engagement-guideline-for-network-service-providers>

Australian Energy Regulator, *New Reg*, n.d., available from <https://www.aer.gov.au/networks-pipelines/new-reg>

Australian Energy Regulator, *Rate of return instrument, 'Explanatory Statement'*, December 2018, available from <https://www.aer.gov.au/system/files/Rate%20of%20Return%20Instrument%20-%20Explanatory%20Statement.pdf>

Australian Energy Regulator, *Rate of return: Overall rate of return. Draft working paper*, 15 July 2021. Available from: <https://www.aer.gov.au/system/files/AER%20-%20Overall%20rate%20of%20return%20-%20Draft%20working%20paper%202021%20-%20July%202021.pdf>

Australian Energy Regulator, *Request for Expression of Interest for the Consumer Reference Group - Inflation Review 2020 and rate of Return 2022*, May 2020.

Australian Energy Regulator, *Stakeholder Engagement*, n.d., available from <https://www.aer.gov.au/about-us/stakeholder-engagement>

Australian Energy Regulator, *Strategic Plan 2020-25*, 2020, available from https://www.aer.gov.au/system/files/AER-Strategic-Plan_2020-2025.pdf

CEPA, *New Reg: AusNet Services trial, Final evaluation report*, Australian Energy Regulator, 30 June 2021, available from <https://www.aer.gov.au/system/files/CEPA%20New%20Reg%20Final%20Evaluation%20Report.pdf>

Choice Community, n.d., available from <https://choice.community>.

Consumer Reference Group, *Consumer Engagement Framework*, September 2020, available from <https://www.aer.gov.au/about-us/stakeholder-engagement/consumer-reference-group/statements-and-advice>.

Consumer Reference Group, *Draft Strategy Version 4*, February 2021, unpublished report

Energy Consumers Australia, *Energy Consumer Sentiment Survey December 2020, 2021*, available from <https://energyconsumersaustralia.com.au/publications/energy-consumer-sentiment-survey-findings-december-2020>)

Groups.io, main@nemchat.groups.io, n.d., available from <https://nemchat.groups.io/g/main>

Independent Panel, *Review of the Australian Energy Regulator's Draft Guidelines*, September 2018, available from <https://www.aer.gov.au/system/files/Independent%20Panel%20Report%20-%207%20September%202018.pdf>

International Association for Public Participation, *Quality Assurance Standard*. May 2015, available from https://iap2.org.au/wp-content/uploads/2019/07/IAP2_Quality_Assurance_Standard_2015.pdf

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

New South Wales Consolidated Acts, *National Electricity (NSW) Law – Sect 18F Definitions*, n.d., available from: http://classic.austlii.edu.au/au/legis/nsw/consol_act/nel282/s18f.html

Newgate Research, *Stakeholder Research 2021*, Report prepared for the AER, July 2021, available from <https://www.aer.gov.au/system/files/aer-stakeholder-survey-2021-report-and-research.pdf>

Trade Practices Commission, *Tenth Annual Report 1983-84*. 2014, Australian Government Publishing Service, available from <https://nla.gov.au/nla.obj-1464693860/view?partId=nla.obj-1467503319#page/n4/mode/1up>