

Review of consumer protections for future energy services

Final advice report

November 2023

© Commonwealth of Australia 2023

This work is copyright. In addition to any use permitted under the *Copyright Act 1968* all material contained within this work is provided under a Creative Commons Attributions 4.0 Australia licence with the exception of:

- the Commonwealth Coat of Arms
- the ACCC and AER logos
- any illustration diagram, photograph or graphic over which the Australian Competition and Consumer Commission does not hold copyright but which may be part of or contained within this publication.

The details of the relevant licence conditions are available on the Creative Commons website as is the full legal code for the CC BY 4.0 AU licence.

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601
Tel: 1300 585 165

Contents

Executive summary	1
1 Current energy consumer protections framework	5
1.1 Australian Consumer Law.....	5
1.2 National Energy Customer Framework.....	6
1.3 New Energy Tech Consumer Code.....	7
2 Need to review the arrangements	8
2.1 Changing energy landscape.....	8
2.2 Task set by the ESB.....	12
2.3 Structure of the AER’s final advice.....	13
3 Case for regulatory reform	14
3.1 Nature of the problem.....	14
3.2 Risk analysis.....	14
3.3 Case for retaining the status quo.....	18
3.4 Regulatory change is needed to mitigate the risks from new energy services.....	20
4 Maintaining a single consumer protection framework	22
4.1 Importance of a single consumer protection framework.....	22
4.2 Conclusion.....	24
5 Potential future framework	25
5.1 Expanding the scope of the NECF.....	25
5.2 Incorporating principles-based regulation.....	27
5.3 Modifications to the existing authorisation process.....	31
5.4 Treatment of bulk hot and chilled water.....	32
6 Implementation considerations	33
6.1 Need for an incremental approach with supporting elements.....	33
6.2 Key areas for further consideration.....	33
Attachment 1: Detailed risk analysis	35
A1.1 Identifying risks from new energy products and services.....	35
A1.2 Different types of consumers.....	43
A1.3 Grouping the risks into themes.....	43
A1.4 Mapping risks using ‘customer journey’ analysis.....	45
A1.5 Probability and material analysis.....	58
A1.6 Case studies.....	74
Attachment 2: Stakeholder feedback	88
A2.1 Feedback on the scope of the energy consumer protection framework.....	88
A2.2 Feedback on importance of ‘essentiality’ of energy in AER’s risk analysis.....	92
A2.3 Feedback on the 3 models presented in the options paper.....	93

Executive summary

Australia's energy landscape is changing. New technology developments mean that households and small businesses can access an increasing range of new and innovative energy services to help them manage their energy use and export electricity grid through solar PV. At the same time, these services are also more complex than traditional retail services and expose consumers to risks.

As Australia shifts to almost complete reliance on renewable generation over the coming decade, the sources of electricity generation will be more diverse and distributed. Currently, almost 3 million Australian households and businesses are now generating 18 GW of electricity through solar panels on their rooftops in the east coast National Electricity Market (NEM). This is equivalent to several large coal-fired power stations. The Australian Energy Market Operator has forecast that ownership of solar PV and distributed battery storage will continue to increase through to 2050 with a significant proportion of NEM generation being supplied by consumers.

The opportunity to harness the benefits of these generation and storage assets for all consumers is underpinning innovation in business models and the emergence of new energy services. This includes aggregation services for flexible generation and flexible demand, as well as home energy management services for consumers to optimise their electricity use easily and conveniently. Services and business models are also emerging to meet the needs of those consumers who prefer simple offers, rather than having to engage with complex information and choices.

These new services will become increasingly important in supporting the grid through the energy transition, reducing the costs of supplying electricity to all consumers and reducing emissions. At the same time, they may expose consumers to greater levels of risk in their dealings with energy service providers that will have expanded beyond energy retail companies selling electricity and gas. Managing these risks through effective consumer protection frameworks is key to building consumer trust and confidence – without this trust and confidence, innovation in business modes and services will be limited. Within the context of the role of consumers in the changing electricity system, in mid-2021 the Energy Security Board (ESB) recommended that the existing energy consumer protection framework be reviewed by the Australian Energy Regulator (AER) to determine whether the framework is still fit for purpose. This recommendation was endorsed by National Cabinet.

In its review, the AER has undertaken a comprehensive assessment of the potential consumer risks associated with new energy services and innovative business models that could emerge to better optimise consumers' electricity use and generation. We have also drawn on significant input from industry and consumer stakeholders, lessons from other jurisdictions and other regulated sectors.

The Australian Consumer Law (ACL) is the primary consumer protection law that applies nationally. In addition, consumers that buy electricity or gas from energy retail companies are protected under the National Customer Energy Framework (NECF) or similar arrangements (in Victoria, Western Australia and the Northern Territory). Simply extending the NECF to new energy services is not viable, given the framework is specific and prescriptive to the

retail supply of electricity and gas and the essential nature of this service. This view was well supported by many stakeholders consulted during the review.

The AER has considered whether the status quo should be retained – that is, making no changes to existing ACL or NECF arrangements. We examined whether a case could be made that it is premature to introduce new regulatory requirements while new energy services are still evolving, and that higher regulatory burdens could potentially be costly and stifle innovation.

However, the AER considers that retaining the status quo of relying solely on the consumer protections under the ACL for new energy services is not appropriate. Instead, expanded consumer protections are required to give consumers confidence that they can participate in new and growing markets associated with consumer energy resources without excessive risk. AER analysis indicates several significant risks that could result in consumer harm arising from new energy services – which are being increasingly bundled in with traditional energy services by retailers – and that are not adequately mitigated by the existing arrangements.

These potential risks revolve around contracts, information provision, performance of services, control of assets, payment difficulty, dispute resolution and service provider conduct. Data on the number and types of complaints being referred to energy ombudsman schemes confirm that consumers are already increasingly experiencing harm in their interactions with providers of the new, innovative offerings in the energy market.¹ There is also evidence that market complexity is harming the ability of consumers to make informed decisions about their energy services. Unless these consumer risks are addressed in a timely manner, consumer trust in new energy services will be eroded.

The AER's view is that, unless there is some regulatory reform to enhance consumer protections for new energy services, consumers may lack the confidence to support the energy transition. Effective consumer protections would support the wider take-up and effective use of new technologies and changes in consumer behaviour driving further innovation and realising the significant benefits that new energy services bring to the energy transition.

The AER's conclusion has also been supported by the ESB in its recent report to Energy Ministers on consumer energy resources integration.² This report identifies a number of priority areas of regulatory reform to help facilitate integration of small-scale consumer energy resources, noting their important role in supporting an efficient pathway to decarbonising the electricity sector. In the report, the ESB agrees that the NECF needs to be updated to ensure that consumers can benefit from innovation from new services in the sector while also being protected from negative impacts on their use of energy within the household or small business.

¹ Energy and Water Ombudsman Victoria, *Final report of the VOICES project (Victorian Energy and Water Ombudsman's Investigation of Consumer Experiences)*, Energy and Water Ombudsman Victoria, March 2021.

² Energy Security Board, *Consumer Energy Resources and the Transformation of the NEM, Critical Priorities to support transformation: a call to action*, November 2023.

The AER has considered what reform of the energy consumer protection framework might look like and consulted on several approaches. There is a strong case for a single, unified consumer protection framework that captures both traditional and new energy services because:

- a single framework would make it easier for consumers to understand their rights and promote trust and confidence in the energy market
- a single framework would help to reduce regulatory burden on industry, promote competition and support providers to understand their regulatory obligations
- the increasing bundling of services in the energy market means that traditional and new energy services are becoming inextricably linked, making it impractical to operate separate regulatory frameworks
- innovation and uncertainty around future energy services creates challenges in designing multiple frameworks for different kinds of energy service providers
- lessons from the operation of embedded networks³ demonstrate the practical challenges of a regulatory model that applies varying levels of oversight on different provider types.

Informed by its extensive consultation with stakeholders, the AER has developed a potential unified framework for energy ministers to consider as part of deliberations about any future changes to the energy consumer protection framework.

In developing the case for the potential framework, the AER has considered the need to provide effective protection for consumers of both traditional and new energy services, the importance of a framework that is flexible so it can adapt to further changes and innovations in the energy market, and the need to minimise the cost of regulation and promote competition and innovation. The key elements of the potential framework include:

- Expanding the scope of the NECF to capture new energy services – for example, by broadening the definition of a service provider to include providing services that involve exporting electricity from a consumer’s premises, or controlling, constraining, preventing or otherwise having a substantial impact on the flow of electricity to or from a consumer’s premises.
- Introducing principles-based regulation for new energy services, with a strong focus on consumer outcomes, while maintaining the existing prescriptive consumer protections for traditional energy retail services. This could include introducing an overarching consumer duty complemented by the types of consumer outcomes that service providers should seek to achieve. The AER considers that principles-based regulatory elements, including an overarching consumer duty, would provide a degree of flexibility for providers that takes into account the significant degree of uncertainty over how these innovative energy offerings will develop through the energy transition. As such, the approach represents a natural evolution of the existing energy consumer protection framework in the context of the transformation of Australia’s energy market.

³ Embedded networks are private electricity networks that serve multiple customers and are connected to another distribution or transmission system through a parent connection point. Examples of embedded networks include shopping centres, retirement villages, apartment complexes and caravan parks.

The overarching duty would complement existing general consumer protections offered under the ACL. Similar conduct duties already apply in other sectors and jurisdictions, particularly in circumstances where complex markets and innovation continue to pose new risks and opportunities, such as financial services and environmental protection.

The AER recognises that implementing reforms of this nature would require an incremental approach that retains the existing prescription-based approach for traditional energy retail services and allows energy service providers time to understand and adjust to any new regulatory obligations.

The AER notes that a principles-based regulatory approach may also create some potential costs, uncertainties and challenges for industry participants. Therefore, it would be important to ensure that any development of an updated framework occurs through careful consultation and input from industry participants, including both existing and new energy service providers.

The successful implementation of an overarching consumer duty would also rely on a range of supporting elements, including an appropriate market entry process to maintain regulatory oversight over new entrants into the market, the development of an appropriate compliance and enforcement framework, and industry education and consumer information. These matters would require further investigation, and the AER is ready to assist energy ministers and jurisdictions as they consider these reform issues.

1 Current energy consumer protections framework

There are currently 3 main forms of protection for consumers of energy in Australia:

- the Australian Consumer Law (ACL), which is administered by the Australian Competition and Consumer Commission, in conjunction with state- and territory-based fair-trading agencies
- the National Energy Customer Framework (NECF), which is administered by the Australian Energy Regulator (AER)
- voluntary regulation initiatives, such as the New Energy Tech Consumer Code (NETCC).

These different approaches are outlined in further detail in this chapter.

1.1 Australian Consumer Law

Coming into effect at the beginning of 2011 to create a single national consumer law for Australia, the ACL represents the nation's principal consumer protection and fair-trading law. It aims to provide consumers with certain key protections when buying goods and services, primarily taking a principles-based approach to promote fair trading.

The ACL operates in all states and territories and applies to all Australian businesses. The ACL includes protections that cover:

- misleading or deceptive conduct⁴
- unconscionable conduct⁵
- unfair contract terms⁶
- service standards and quality⁷
- consumer guarantees⁸
- unsolicited consumer agreements⁹
- product safety.¹⁰

To enable its broad application to all sectors of the economy, the protections provided by the ACL are deliberately generic and are not tailored to address specific risks that may arise in

⁴ For further reading see ACCC website information on [Advertising and selling guide](#)

⁵ For further reading see ACCC website information on [Unconscionable conduct](#)

⁶ For further reading see ACCC website information on [Unfair contract terms](#)

⁷ For further reading see AEMC website information on [Service standards and quality](#) and [The Australian Consumer Law website](#)

⁸ For further reading see ACCC website information on [Consumer guarantees](#)

⁹ For further reading see ACCC website on [Unsolicited consumer agreements](#)

¹⁰ For further reading see ACCC website on [Product safety](#)

some industries. Where there is a need to mitigate additional risks in some sectors, the ACL is augmented with industry-specific protection frameworks. The NECF is one of these.

1.2 National Energy Customer Framework

The NECF was developed by state, territory and Australian energy ministers through the Council of Australian Government's (COAG's) Standing Council on Energy and Resources (now the Energy and Climate Change Ministerial Council) and the COAG Energy Council. It comprises a suite of legal instruments that regulate the sale and supply of electricity and gas to retail customers. The NECF was designed to complement the broader consumer protections provided under the ACL.

It currently applies (with jurisdictional modifications) in the Australian Capital Territory (ACT), Tasmania, South Australia, New South Wales (NSW) and Queensland.

The NECF was developed to provide strong national protections for energy consumers in recognition that the supply of energy represents an essential service for the health, safety and wellbeing of all Australians. Other rationales for the introduction of energy-specific consumer protection through the NECF include the need to:

- protect specific groups of vulnerable consumers, such as those facing financial hardship
- provide a counterbalance to certain market characteristics, such as the substantial power imbalances between consumers and providers. For example, small residential and small business customers have little bargaining power and can be put at a significant disadvantage by energy suppliers if their practices are not regulated.

The NECF regulates a very specific activity performed by energy retailers – namely, 'selling energy to a person for premises', as defined in the National Energy Retail Law.¹¹ The key consumer protection provisions in the NECF include:

- minimum requirements for energy contracts, relating to pricing, billing, payment obligations and dispute resolution
- requirements relating to consumer information requests, general information for the supply of energy and notification for new meter deployments and energy interruptions
- ensuring consumers continue to receive the supply of energy in the event of retailer failure (through 'Retailer of Last Resort' provisions)
- the requirement for retailers to be members of a jurisdictional ombudsman scheme
- protections for customers facing financial difficulty and customers requiring life support equipment.

The AER administers the NECF and market entry through an authorisation process, which assesses the ability, financial viability and suitability of providers to act as energy retailers, with exemptions available under certain circumstances.

Notably, the NECF was developed in the context of regulating 'traditional' energy retail services at the time the Australian energy retail market was being deregulated and opened

¹¹ Subsection 88(1) of the National Energy Retail Law.

up to competition. As explained in section 2.1, the energy market is undergoing a transformation, with a range of new, innovative energy products and services becoming available. Many consumers have more active, two-way interactions with the energy market. Because the NECF only applies to the sale of energy to a person's premises, many new energy services do not currently fall under the remit of the NECF.

1.3 New Energy Tech Consumer Code

The NETCC is another protection for energy consumers. The NETCC is a voluntary code of conduct designed by industry and consumer representatives that sets minimum standards designed to protect consumers when purchasing new energy technologies, including solar generation systems, energy storage systems, electric vehicle charging and other emerging energy services. Suppliers of new technology can volunteer to be bound by the requirements of the code. The NETCC is administered by the Clean Energy Council, an industry association of companies that work in or support the clean energy sector.

While the ACL still applies to these services, provisions of the NETCC extend or amplify protection obligations for new energy suppliers, such as commitments for new providers to make enquiries about a customer's specific circumstances, needs and expectations to ensure that products offered are fit for purpose.

The overarching purpose of the NETCC is to raise public awareness of consumer rights. It also seeks to improve compliance with energy consumer laws by raising awareness of signatories to consumer obligations set out in the code.

2 Need to review the arrangements

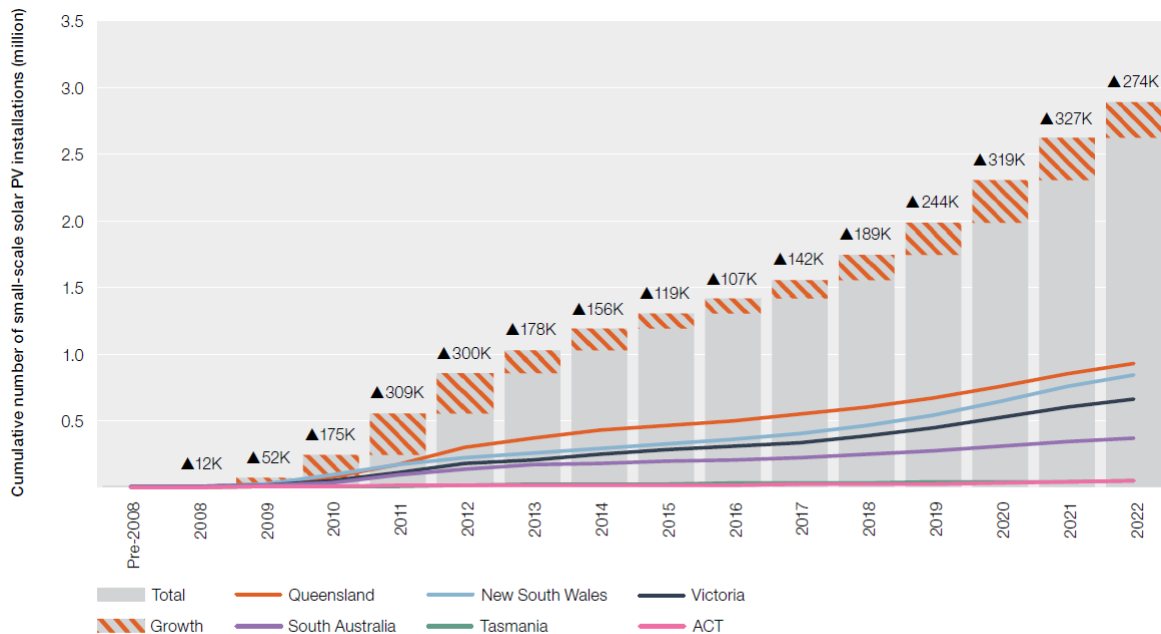
2.1 Changing energy landscape

Energy markets in Australia are transforming in response to two main factors – government policies to encourage the transition to a low emissions future, and the advent of new technologies. These new technologies are yielding a range of new energy services that are changing the way we generate, store and control energy, while also allowing consumers to interact with the energy market in more dynamic ways.

The ‘traditional’ energy market of the 20th century was characterised by a one-sided supply of energy from suppliers – overwhelmingly generated from fossil fuels – to consumers’ premises. Consumers were largely passive agents, whose only active decision was to select a retailer once deregulation opened the retail market to full competition. Accumulation meters only kept track of total energy usage and consumers had to rely on data presented on their quarterly bills to understand their patterns of energy consumption.

The energy landscape is vastly different now. As the Australian economy transitions to a low emissions future, there has been a rapid uptake of home-based generation of electricity through rooftop PV solar panels, which are now a feature of around 3 million households and businesses in Australia (see Figure 2.1). These systems are increasingly being installed with storage batteries that capture and store unused energy generated by a household’s solar panels. This means there is now an increasingly two-way interaction between consumers and suppliers because many households are feeding electricity into the grid, as well as purchasing energy from the market (see Figure 2.2).

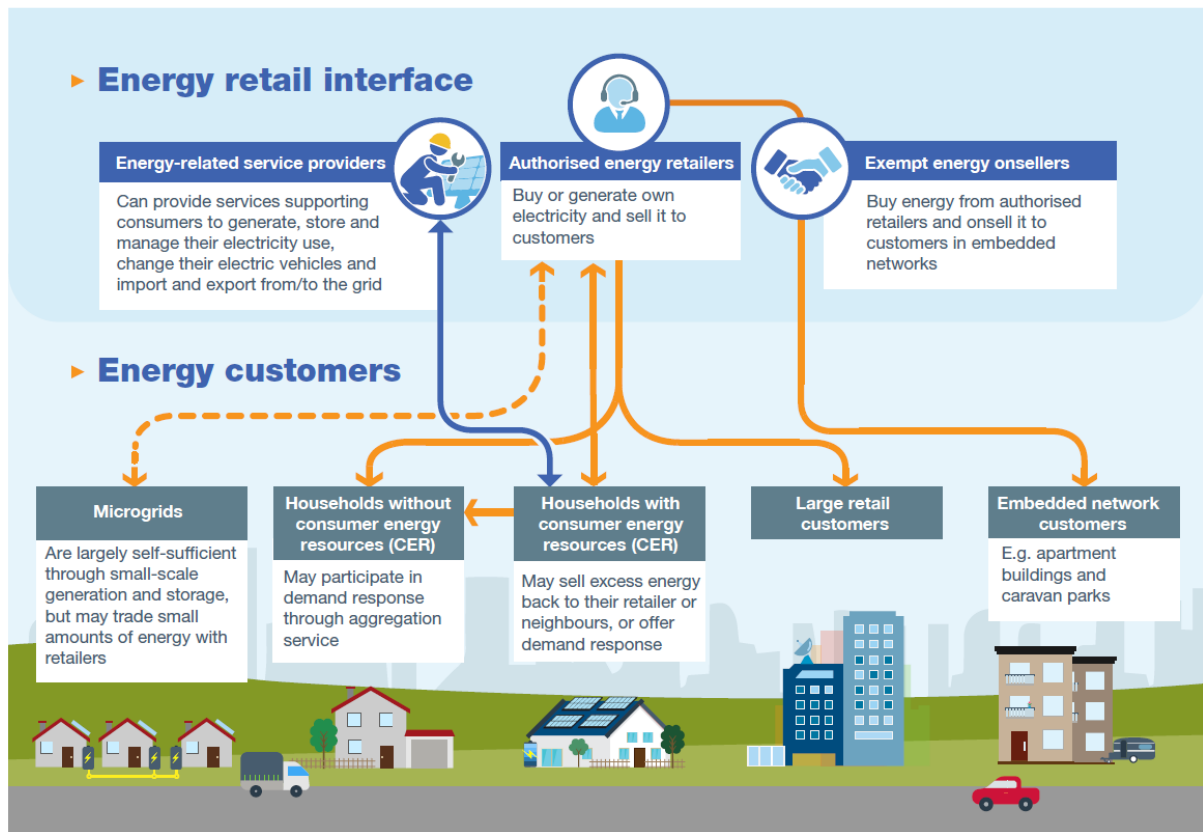
Figure 2.1 Growth in small-scale solar PV installations in Australia



Note: Small-scale generation units have a capacity of no more than 100 kilowatts (kW) and a total annual electricity output of less than 250 megawatt hours (MWh).

Source: Clean Energy Regulator, Postcode data for small-scale installations, data as of 30 June 2023, taken from AER State of the Energy Market 2023 report, page 261.

Figure 2.2 Retail energy market supply chain



Source: AER, State of the energy market 2023 report, page 217.

Electric vehicles are also rising in popularity, representing around 8% of all new car sales in Australia in 2023.¹² This has created the need for electric vehicle charging services, which can be provided directly through the supply of electricity at a consumers' private premises. This can occur through dedicated charging systems installed at consumers' premises that may be separate to their general electricity supply, or at public charging facilities (for example, streetside, office buildings, shopping centres and service stations).

Similarly, there is increasing take up of battery storage systems that capture and store unused energy generated by a household's solar panels. In addition to batteries for use at individual premises, there are also community batteries, which are large batteries that are used by several households (such as those in a housing development or apartment complex).

Meanwhile, the emergence of digital technologies has revolutionised the recording and management of consumer energy consumption. In turn, this has provided retailers with more opportunities to tailor energy offers to consumers' specific needs. Through emerging technologies including metering, consumers are now better able to respond to price signals (for example, through energy contracts offering time-of-day tariffs or the use of 'smart' appliances) or to engage with providers that offer aggregation and/or energy management services (see Box 2.1).

¹² Electric Vehicle Council, *State of Electric Vehicles*, July 2023.

Box 2.1 Examples of new energy products and services



- **Aggregation services** (such as virtual power plants) combine and coordinate distributed energy resources (such as decentralised generation, storage and controllable loads) to deliver services for power system operations and electricity markets. Consumers with smart technologies that enable them to manage their energy usage (including when to export energy into the grid) can engage with aggregators, who can then control a participating consumer's energy supply according to total system electricity demand and in response to changes in the wholesale electricity price. Services can also be tailored to respond to network prices as well, which can vary according to time of day.



- **Energy management services** use software to manage a consumer's energy consumption. For example, this may be done by optimising when energy generated by solar panels located on premises is used and when it is more efficient to use energy supplied from the grid. It can also include turning smart devices (such as air conditioning, pool pumps, storage batteries and white goods) on and off remotely and setting devices to operate within certain rules or conditions. Energy management services can optimise a household's energy usage, which may lead to bill savings for consumers.

These changes mean that consumers now face making multiple decisions with a plethora of new and complex choices in the energy market. The willingness of consumers to embrace the new array of energy services, along with further innovations, will be pivotal to the continued evolution of the market and the realisation of potentially significant benefits that arise from the transformation of the energy landscape. Benefits include:

- Integrating electricity generated by home PV solar-powered systems into the electricity market defers and reduces the need for additional network and grid-based generation investment, thereby reducing system costs. Analysis undertaken by the Energy Security Board in 2021 estimates the benefits of harnessing flexible demand and the successful integration of consumer energy resources (such as electricity generated from solar panels and stored in batteries) to be around \$6.3 billion over the next 20 years.¹³
- Consumers are also benefiting from the greater choice in energy services, many of which can potentially lower their household energy bills (for example, by responding appropriately to price signals, such as using less power from the electricity grid at times when it is expensive).
- Accelerating the shift in the use of energy that is derived from fossil fuels towards low emission sources, and/or a reduction in overall energy use, provides environmental benefits and will play an important role in meeting government objectives to reduce Australia's greenhouse gas emissions.

¹³ Energy Security Board, *Post-2025 Market Design Final advice to Energy Ministers – Part A*, July 2021.

While the transformation of the energy landscape offers significant benefits, it also presents new risks to consumers, particularly because the energy market is becoming increasingly complex. This growing complexity can have profound impacts on the ability of consumers to engage effectively in the energy market and make informed decisions. There is already evidence that consumers face significant challenges with traditional retail services and we consider that as services become more complex, these challenges will escalate:

- The Consumer Policy Research Centre found that 44% of Australians are living with low literacy below what is considered enough to get by in everyday life.¹⁴ This means that many consumers face difficulties in navigating the energy market and making even simple decisions, such as choosing or switching providers.
- The Public Interest Advocacy Centre (PIAC) found that consumers find it overwhelming to navigate energy markets and make choices when they do not understand the different characteristics used to distinguish between different energy offerings.¹⁵ In a written submission to the AER, PIAC has also stated that Australians are facing sustained cost-of-living pressures and have difficulty negotiating with their current providers. Understanding the different characteristics of plans, products or services can be overwhelming, especially for those with poor health, hearing impairment or limited English skills.¹⁶
- A report by the Essential Services Commission in Victoria also reported that consumers find it complex and overwhelming to compare energy plans, with some feeling that the effort required outweighed the reward.¹⁷
- A report by the Council of Small Business Organisations Australia noted that consumers often receive poor and generic information from energy providers, which contains little industry or sector-specific information and does not cater for the specific needs or circumstances of consumers.¹⁸
- An ACIL Allen report for the ESB found that the technical complexity of consumer energy resources (such as rooftop PV solar panels), coupled with poor information provided to consumers by suppliers, may represent a barrier to the uptake of new energy technologies.¹⁹

These factors may help to explain an apparent reluctance by many consumers to engage with the energy market. A recent survey undertaken by Energy Consumers Australia

¹⁴ Consumer Policy Research Centre, *Exploring Regulatory Approaches to Consumer Vulnerability: A Report for the Australian Energy Regulator*, February 2020.

¹⁵ Report commissioned by the Public Interest Advocacy Centre, written by All Sustainable Futures, *Save4Good: A report for the Public Interest Advocacy Centre*, 2022.

¹⁶ Public Interest Advocacy Centre et al., *Submission to the AER's review of consumer protections for future energy services: Options for reform of the National Energy Customer Framework*, February 2023.

¹⁷ Essential Services Commission, *Victorian Energy Market Report 2020-21*, November 2021.

¹⁸ Council of Small Business Organisations Australia, *Energy Bill Shock: Future Proofing Small Business*, June 2022.

¹⁹ ACIL Allen report for the ESB, *Barriers and enablers for rewarding consumers for access to flexible DER and energy use*, June 2022.

reported that 77% of consumers did not switch energy plans or retailers during the past year and 81% did not intend to switch in the following year.²⁰

To encourage the continuing uptake of new energy services, and thereby realise the benefits that these new technologies offer, consumers must have the confidence and trust to engage in an increasingly complex market environment. An effective consumer protection framework is essential to instil such confidence and trust.

2.2 Task set by the ESB

The ESB recognised the importance of reviewing the regulatory arrangements governing energy consumer protections to ensure they remain fit for purpose within the context of the evolving and increasingly complex energy market. In mid-2021, as part of its final advice to energy ministers about reforms to the National Electricity Market to meet the needs of the transition up to and beyond 2025,²¹ the ESB recommended that such a review be undertaken by the AER. In October 2021, National Cabinet endorsed the final reform package and corresponding ESB recommendations.

The ESB tasked the AER with exploring whether the current consumer protections framework will remain fit for purpose for the future energy market by understanding the impacts and potential risks to consumers from the uptake of new energy services.

As part of this exercise, the AER was asked to explore whether the current NECF captures new energy services. Where the NECF was found to not cover these new services, the AER was asked to examine whether the broader ACL could adequately mitigate any potential risks or whether the scope of the NECF needs to be expanded.

While traditional services involve the selling of electricity and gas by retailers to a person's premises, the new energy services are managing electricity use and generation. Therefore, the focus of the review has been on new energy services that are electricity-based. We have not considered as part of this review the application of the NECF as it applies to the sale and supply of gas.

2.2.1 The AER's review process

In undertaking this review, the AER has considered:

- the effectiveness of the current consumer framework, comprising the ACL and the NECF, in managing energy consumer risks
- a comprehensive analysis of the potential consumer risks associated with new energy services
- extensive input and feedback from key stakeholders – see below for more information
- lessons from other jurisdictions and other regulated sectors.

Over the course of this review, the AER has undertaken extensive consultation with stakeholders, which has provided valuable insights about the effectiveness of the current

²⁰ Energy Consumers Australia, *Energy Consumer Sentiment and Behaviour Surveys*, December 2022.

²¹ Energy Services Board, *Post-2025 Market Design Final advice to Energy Ministers – Part A*, July 2021.

arrangements for energy consumer protection. This has helped to ensure that our findings reflect robust evidence and feedback from a wide range of consumer groups and industry participants.

The AER has been able to draw on the knowledge and experiences from a variety of stakeholders through a number of forums and workshops, including:

- open forums for all stakeholders to provide briefings on the review
- informal meetings with individual stakeholders
- workshops facilitated by the ESB's Customer Insights Collaboration workstream involving stakeholders from across the energy sector (government, retailers, distributors, innovators, academics, consumer groups, ombudsman schemes and industry groups)
- targeted workshops with consumer groups, energy retailers and ombudsman schemes
- targeted workshops with jurisdictions
- discussions with overseas government agencies (such as Britain's Office of Gas and Electricity Markets (Ofgem) and Financial Conduct Authority).

In addition, the AER received 31 written submissions from stakeholders in response to an issues paper released in April 2022²² and a further 24 written submissions in response to an options paper released in October 2022. The options paper sought stakeholder feedback on some potential models for regulatory reform.²³ Further detail on the stakeholder feedback in relation to the AER's consultation processes is set out in Attachment 2.

2.3 Structure of the AER's final advice

This report presents the AER's final advice to energy ministers on its review of protections for energy consumers for future energy services.

Having outlined the background and context for this review in the opening chapters, the remainder of the report is structured as follows:

- Chapter 3 examines the case for regulatory reform. It presents the results of the AER's risk analysis and assesses whether the status quo is fit for purpose to mitigate the risks to consumers of new energy services, or whether new regulation is needed.
- Chapter 4 considers whether any regulatory change should involve multiple energy-specific frameworks or a single, unified energy consumer protection framework.
- Chapter 5 presents a potential framework that could be considered by policymakers as part of deliberations about future regulatory arrangements for energy consumer protection.
- Finally, some key implementation considerations for the potential new framework are outlined in Chapter 6.

²² AER, *Retailer authorisation and exemption review - Issues paper*, April 2022.

²³ AER, *Review of consumer protections for future energy services: Options for reform of the National Energy Customer Framework*, October 2022.

3 Case for regulatory reform

3.1 Nature of the problem

The scope of the NECF reflects the characteristics of this ‘traditional’ market. In particular, it regulates a very specific activity performed by energy retailers – ‘selling energy to a person for premises’.²⁴

Because the NECF only applies to the sale of energy to a person’s premises, it does not capture many of the new services that are critical in the evolving energy market, such as aggregation and energy management services. The NECF also does not cover two-way interactions between consumers and providers that involve feeding into the grid electricity generated and stored from consumer energy resources, such as rooftop PV solar panels and storage batteries.

With the scope of the NECF limited, this leaves the broad consumer protection provisions of the ACL as the main form of mitigation for any consumer risks associated with new energy services. A key issue for this review has been to assess whether the ACL provisions are sufficient to manage the risk, thereby providing a case for retaining the status quo, or whether regulatory changes need to be made to provide adequate consumer protection against the risks from the new energy services. To make this assessment, it is necessary to thoroughly understand the nature of these risks.

3.2 Risk analysis

3.2.1 Overview of methodology

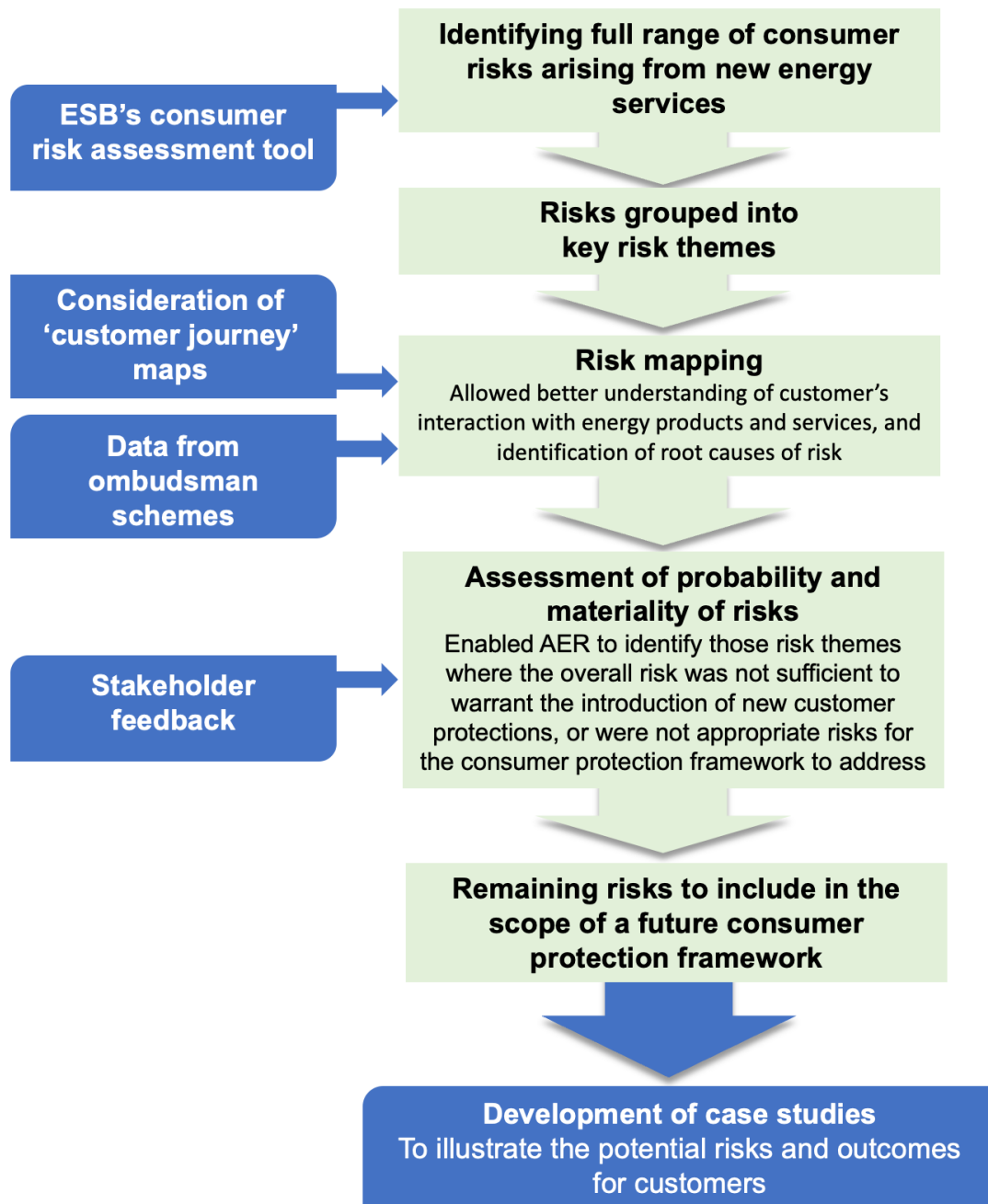
The AER has undertaken an extensive analysis of the potential risks to consumers arising from the new energy services that are now available. Figure 3.1 provides a high-level depiction of the methodology underpinning the risk analysis process, which has drawn on:

- the ESB’s established risk assessment tool, which was developed to ensure market bodies explicitly and consistently consider consumer benefits and risks as part of, and alongside, design and development of market reforms
- ‘customer journey’ mapping, which considers the types of risks that can arise at different stages²⁵ of a consumer’s interactions with different energy offerings
- case studies of risks with specific energy services
- submissions from ombudsman schemes about matters that have been referred to them relating to new energy services
- feedback from stakeholders during the AER’s consultation processes.

²⁴ Subsection 88(1) of the National Energy Retail Law.

²⁵ These stages include pre-engagement, point of sale, use of service, switching providers and end of service.

Figure 3.1 Overview of the AER’s risk analysis



3.2.2 Results of risk analysis²⁶

The AER’s analysis has identified several key potential risks arising from the availability of new services in the evolving energy market, which are not addressed adequately by the current energy consumer protection framework, including the ACL, but which represent

²⁶ This section provides a high-level summary of the results of the AER’s risk analysis. More detailed information about the analysis is presented in Attachment 1 to this report.

probable and material risks causing consumer harm. These potential risk associated with new energy services have been grouped into the following themes²⁷:

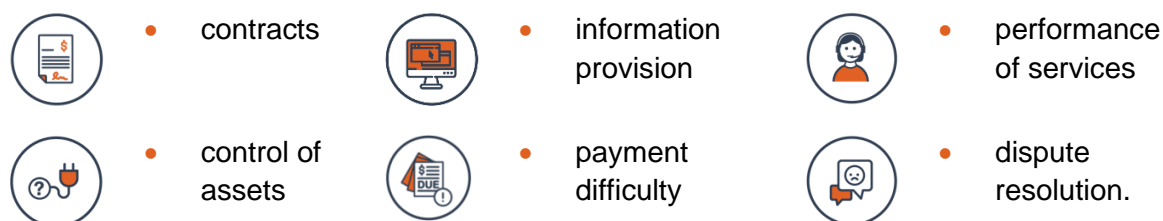


Table 3.1 describes each of these risk themes. The key desirable outcomes that consumers might expect under an effective consumer protection regulatory regime are derived from the assessment of the probability and materiality of risk and informed by case studies. Further detail on this assessment and the case studies is set out in Attachment A.

Table 3.1 Key risk themes arising from new energy services

Risk theme, description and examples	Key desirable consumer outcomes
<p>Contracts</p> <p>There is a risk of consumers entering into contracts that are not suitable for their circumstances or that specify financial commitments and/or lock-in terms that the consumer does not fully understand.</p>	<ul style="list-style-type: none"> Contracts should be fit for purpose (appropriate to the circumstances of the consumer) and properly explained to a consumer before they sign. Consumers should expect to benefit from the contracts they enter into.
<p>Information provision</p> <p>There is a risk of consumers not receiving the information they need to support them to make decisions about energy services that will best suit their needs and wants.</p> <p>This includes information about the value a service can offer to a customer, its fit/appropriateness to the customer's circumstances and how it interacts with other services the customer may already have at their premise.</p>	<ul style="list-style-type: none"> Consumers should receive key information about an energy service before they sign onto a contract. This will support them to make well-informed decisions that best suit their needs.
<p>Performance of services</p> <p>There is a risk of services not working in the intended way (e.g., due to technical issues or in the way that it operates). Alternatively, a service may not perform to a consumer's expectations and this may impact their overall supply of energy.</p>	<ul style="list-style-type: none"> Consumers energy services should perform as intended regardless of the types of services they have or the source of their energy supply (whether it is behind the meter, from the grid or both).

²⁷ A full set of potential risks identified in the analysis is included in Attachment A, Table A1.1, A1.3 and A1.10.

Risk theme, description and examples	Key desirable consumer outcomes
<p>Control of assets</p> <p>There is a risk of some services being remotely controlled by a provider in a way that causes consumer detriment.</p>	<ul style="list-style-type: none"> • Consumers should get access to their energy supply (whether it is behind the grid, from the grid or both) when needed. Consumers' expectations should be managed, and providers should clearly explain the implications of control. • Service providers should market and distribute services having regard to the characteristics of the consumers that they are selling them to. • Consumers should be given a choice to either provide or withdraw consent prior to the control of their assets. They should have the ability to override control of their assets whenever needed.
<p>Payment difficulty</p> <p>There is a risk that consumers are unable to pay the costs of their energy service which has implications for their access to electricity or debt being accumulated.</p>	<ul style="list-style-type: none"> • Consumers experiencing hardship should still have access to their supply of energy. • Energy providers should work together to support shared consumers through hardship. • Consideration should be given to whether all new services require hardship protections.
<p>Dispute resolution</p> <p>There is a risk that consumers may be unable to resolve disputes because of barriers to access to dispute resolution, including cost and complexity barriers.</p> <p>There is also a risk that matters are not resolved fairly and in a timely manner.</p>	<ul style="list-style-type: none"> • Consumers should be able to access independent dispute resolution that covers all energy services that affect the supply of energy to their household or business premises. Consumers' disputes should be resolved: <ul style="list-style-type: none"> – in a timely manner – fairly – at minimal cost – without needing to go to multiple parties or dispute resolution bodies.

Risk theme, description and examples	Key desirable consumer outcomes
<p>Fair provider conduct</p> <p>There is a risk that consumers could be negatively affected by a provider's unfair conduct. Further, the provider's unfair conduct may influence consumers' trust in the energy market.</p>	<ul style="list-style-type: none"> • Energy sellers and service providers must act in the best interest of consumers.

3.3 Case for retaining the status quo

The AER has considered whether, notwithstanding the risks identified above, there is a case for retaining the status quo – that is, making no changes to the current energy consumer protection framework. This might be justified for reasons such as:

- It may be premature to introduce a new model of regulation while the energy market is still undergoing a transformation, and other new risks may emerge that need to be understood before designing appropriate regulatory responses.
- Any new regulatory requirements could potentially create an unnecessarily high regulatory burden, which could hinder further innovation in the energy market. This could hinder the energy transition.
- The costs incurred by energy providers of complying with any new regulatory requirements could be passed onto consumers in the form of higher prices.

Furthermore, some stakeholders during the AER's consultation process argued that many of the new services should not be subject to energy-specific protections, such as those available under the NECF, because they cannot be categorised as being 'essential'. As such, these stakeholders believe that the existing provisions of the ACL are sufficient to provide adequate protections to consumers of new energy services.

3.3.1 The AER's assessment: status quo is not fit for purpose

Having analysed the risks from new energy services against the arguments to retain the current consumer protection arrangements, the AER does not consider the status quo to be fit for purpose.

- The AER's risk analysis has highlighted several areas of probable and material risks to consumer harm from the availability of new services in the evolving energy market. Further, data on the number and types of complaints being referred to energy ombudsman schemes suggests that consumers are already at risk of harm in their interactions with providers of the new, innovative offerings in the energy market.²⁸
- Our customer journey mapping exercise has revealed consistent risk patterns across various stages and between different new energy service offerings, which suggests that

²⁸ Energy and Water Ombudsman Victoria, *Final report of the VOICES project (Victorian Energy and Water Ombudsman's Investigation of Consumer Experiences)*, Energy and Water Ombudsman Victoria, March 2021.

the emergence of any further innovative energy goods and services in the future may present similar types of risks to consumers.

These risks of consumer harm fall outside the remit of the current NECF because they involve services that do not involve the sale of energy to a person's premises. The AER's assessment suggests that the broader provisions of the ACL, whilst crucial, are not sufficient protection for consumers in the context of the energy transformation and the increasing importance of new energy services.

While the ACL does provide some important protections, these are not tailored specifically to energy services, which are likely to have a high degree of complexity. For example, the complexity of new energy services means that consumers are likely to require very specific information and support to understand what they are buying at the point of sale. While the ACL includes misleading or deceptive conduct provisions, it does not contain a positive obligation to provide specific product information to consumers that is necessary to help them decide if an energy service is appropriate for their needs.

The ACL sets out a series of general prohibitions on businesses, including businesses must not:

- mislead or deceive
- engage in conduct that is unconscionable
- seek to impose standard form contracts that are unfair
- engage in specific practices that, broadly speaking, exploit consumers (for example, 'bait advertising'²⁹ and 'drip pricing'³⁰).

While the ACL includes some positive obligations such as when negotiating unsolicited consumer agreements, or other obligations in the form of consumer guarantees (for example, goods must be of an acceptable quality, match their description and be fit for a particular purpose), they do not go as far as the positive obligations included in the NECF, such as:

- a positive obligation on retailers to supply a new customer on standard terms
- a positive obligation on retailers to continue to supply a customer in certain cases, even if the customer has breached the provisions of its contract requiring payment
- forbidding the disconnection of a customer on life-support equipment, irrespective of whether the customer is complying with the terms of a contract that is, in all respects, fair and reasonable
- requirements for retailers to obtain the explicit informed consent of consumers before putting them on a new energy plan.

The positive obligations in the NECF recognise the essential nature of energy services and the complexity of the energy market. Some stakeholders have indicated that new energy

²⁹ 'Bait advertising' is the practice of promoting prices, often 'sale' prices, on products that are not available or only in very limited quantities.

³⁰ 'Drip pricing' is when a price is advertised at the beginning of an online purchase, but then extra fees and charges (such as booking and service fees) are gradually added during the purchase process. This can result in consumers paying more than they initially intended to.

services should not be categorised as essential. However, whilst on their own new energy offerings may not be considered essential, they are becoming increasingly connected with essentiality. This is because:

- New energy products and services (such as aggregation) are becoming increasingly bundled in contracts involving the supply of ‘traditional’ energy services. The means that the line between essential NECF-protected products and services, and those energy offerings that are not currently captured by the NECF, is becoming increasingly blurred.

With growing complexity and the bundling of products and services, consumers are unlikely to be able to determine which services have energy-specific protections and which are not covered by the NECF. This is likely to pose problems – for example, for external dispute resolution if only some services are covered by an ombudsman service.

- New energy management services have the potential to control, constrain, prevent or impact the supply of energy to consumers’ premises. In turn, this can affect the essential supply of energy, including impacting a consumer’s comfort and health within their home, and expose consumers to the risk of considerable harm.

The nature of new energy services offerings are also fundamentally different to the traditional retail contract. These offerings are more complex for consumers and may also involve longer term contracts with capital outlays (for example, for electric vehicles, solar and batteries). This creates related risks that consumers make decisions that could ultimately place them in payment difficulty – for example, due to circumstances of vulnerability.

It also seems reasonable to expect that the ‘essentiality’ of various energy services will change through the energy transition and as new technology is adopted (for example, electric vehicle charging at home). It is important that the energy consumer protection framework adapts accordingly.

- New energy services are also becoming increasingly important to integrating consumer energy resources into the grid, supporting the supply of energy into wholesale markets, as well as supporting network and system security services. As has been noted earlier, this can help to reduce the costs of supplying electricity to all customers by reducing the need for network and grid-based generation investment.

In this sense, the customer of the future is not simply a consumer of energy. The customer who owns solar panels or a battery or an EV is also a producer. The integration of consumer energy resources, at scale, is an essential ingredient to a successful energy transition. Therefore, it is critical that consumers are able to have confidence and trust in these services if they are to be taken up. Without this, there is a risk that these services will not be taken up and that all consumers face a more expensive overall energy transition.

3.4 Regulatory change is needed to mitigate the risks from new energy services

The AER has concluded that the current energy consumer protection framework is insufficient to address the risks to consumers that are already emerging from new energy services. The AER believes that regulatory change is needed to mitigate these risks now and

into the future. Any regulatory responses should be proportionate to minimise regulatory burdens and not hinder any further innovation in the energy market.

Unless these risks are addressed, consumer trust in new energy services is likely to be eroded and puts at risk the realisation of significant benefits that the take up of new energy services can bring.

The AER's conclusion has also been supported by the ESB in its recent report to Energy Ministers on consumer energy resources integration.³¹ The ESB agrees that the NECF needs to be updated to ensure that consumers can benefit from innovation from new services in the sector whilst also being protected from negative impacts on their use of energy within the household or small business.

The AER's conclusion about needing to introduce new regulation for new energy services, in addition to the ACL, is also consistent with other developments, most recently in Western Australia which has moved to adopt a new regulatory framework (see Box 3.1).

Box 3.1 Western Australia's review of regulatory framework for electricity retail licensing and exemptions to facilitate customer protections in new and emerging electricity business models

The Western Australian Retail Electricity Licensing and Exemptions Review found the regulatory licensing and exemptions framework was not fit for purpose to regulate alternative energy services. The Western Australian Government is introducing the Alternative Electricity Services (AES) regulatory framework to ensure adequate protections are available for consumers of alternative electricity business models and services. The AES framework is intended to:

- expand the consumer protection framework to cover customers of new and emerging business models, including providing access to energy ombudsman dispute resolution services
- enable the framework to be flexible, adapt to meet future needs and remain fit for purpose
- establish a robust and proportionate compliance and enforcement regime for AES.³²

The first services to be prescribed under the framework are embedded network services and behind-the-meter storage and generation services.³³

³¹ Energy Security Board, *Consumer Energy Resources and the Transformation of the NEM, Critical Priorities to support transformation: a call to action*, November 2023.

³² Government of Western Australia, *Tailoring customer protections for alternative electricity services – a registration framework: Final Recommendations Report*, 5 November 2020.

³³ Government of Western Australia, [Alternative Electricity Services](#), 7 July 2023.

4 Maintaining a single consumer protection framework

Given the case for regulatory change to mitigate the risks to consumers from new energy services, consideration needs to be given as to whether this should be delivered through a single consumer protection framework, such as the NECF, or whether new services and service providers should be subject to a different and separate framework. This chapter considers this and recommends maintaining a single consumer protection framework.

4.1 Importance of a single consumer protection framework

A key threshold issue that the AER has considered when formulating reform options is whether there should be multiple energy-specific consumer protection frameworks, with different frameworks applying to different providers (such as retailers, electricity distribution networks, embedded networks and other service providers like aggregators), or whether a single, unified framework encompassing all energy service providers should be implemented. The latter might involve expanding the scope of the NECF to capture new energy services and adding additional components and obligations to make the NECF fit for purpose for new energy services (noting that different obligations might still apply to different types of services within this single framework).

Supported by stakeholder feedback, the AER has concluded that a single consumer protection framework that would apply to all energy services is preferable. The rationale for this unified approach includes the following:

- **A single framework would make it easier for consumers to understand their rights and promote trust and confidence in the energy market.** If consumers understand they will receive consistent protection and outcomes regardless of the energy service they use, this is likely to promote trust and confidence in the energy market, thereby supporting competition, innovation and the increased uptake of consumer energy resources, which would promote the energy transition.

A single dispute resolution process covering all types of energy services is especially desirable, particularly given the increased 'bundling' of traditional energy supply with new services (such as aggregation services). As previously noted, state-based energy ombudsman schemes are reporting a large increase in the number of complaints about services that fall outside their jurisdiction because they are not currently captured under the NECF (even though these new offerings are bundled with the traditional energy supply offerings of providers), which means consumers must find other – often costly and time-consuming – avenues if they want to resolve disputes.

Consumers need to trust they will receive consistent protection regardless of the type of services included in an energy service package. If they experience a problem with one of the offerings in a bundle, they need to be able to quickly and easily access dispute resolution assistance without having to identify the appropriate consumer protection framework from a range of possible frameworks and navigate through the relevant resolution process.

- **A single framework would help to reduce regulatory burden** on industry, promote competition and support providers to understand their regulatory obligations. Separate regulatory regimes for different types of energy services would increase regulatory complexity and compliance costs for providers. This is particularly true for providers of a range of offerings, including both traditional energy supply services and new energy services. In contrast, bringing all service providers under the same framework would be simpler to understand and would establish a level playing field to promote competition.

The increasing bundling of services in the evolving energy market means that traditional and new services are becoming inextricably linked. It would not be practical to operate separate regulatory frameworks.
- **Innovation and uncertainty around future energy services creates challenges in designing multiple frameworks for different kinds of service providers.** With technology changes it is difficult to be certain of the characteristics of different energy service providers and how these may evolve in the future. A framework that is based around defining particular kinds of service providers may not be workable in the longer term and a more flexible approach is needed.
- **Lessons from the operation of embedded networks as shown in Box 4.1** note there are clear challenges in implementing tiered regulatory frameworks in a simple and consistent manner that delivers appropriate and equitable consumer protections, provides regulatory certainty for service providers and remains fit for purpose.

Box 4.1 Protection of customers using embedded networks

Embedded networks are private electricity networks that serve multiple customers and are connected to a distribution or transmission system through a parent connection point. Common examples of embedded networks include shopping centres, retirement villages, apartment complexes and caravan parks.

Generally, these networks are exempt from being a network service provider and purchase electricity at the parent connection point and on-sell it to customers at child connection points within the embedded network. This means consumers in an embedded network may not have the same level of consumer protections as those connected directly to the grid.

Challenges include:

- differences in customer information, with customers unaware of embedded network arrangements until problems arise
- limited access to competition, which may result in higher prices
- safety and reliability standards are more limited than distribution system requirements
- performance reporting obligations only apply to retailers, not embedded network sellers and suppliers.

When introduced, the exemptions framework for embedded networks was developed to enable on-selling of energy in limited situations to a small number of customers, where regulatory costs associated with authorisation were not considered justified. For these arrangements, energy sales were limited and ancillary to a tenant-landlord relationship and risks to customers were considered minimal.

However, over time the growth in the number of customers served in embedded networks, particularly residential embedded networks, has meant that an increasing number of customers are now being served under exempt selling arrangements. This trend is likely to continue as the energy market evolves and consumers in embedded networks are unlikely to have access to, or control over, how they access, new technologies and service models.

Previous work undertaken by the Australian Energy Market Commission (AEMC) found that the embedded networks framework was not fit for purpose.³⁴ A number of jurisdictions (NSW, Victoria, South Australia and the ACT) have also reviewed aspects of their embedded networks frameworks in recent years and found that embedded network customers face a range of harms, due to their lack of access to retail competition and reduced consumer protections. These reviews also note possible benefits of embedded networks, including the potential for lower energy costs to be passed through to consumers.

While the AER is undertaking separate processes to address the issues with embedded networks (including its forthcoming review of retail exempt selling guideline and network exemptions guideline), the operation of the exemptions framework in embedded networks highlights the practical challenges of a regulatory model that applies varying levels of oversight on different provider types.

As such, the AER suggests that, unless exempt, any provider who on-sells or exports energy from an embedded network or manages the flow of electricity to and from an embedded network should be included in the scope of the future energy customer protection framework.

4.2 Conclusion

Under reformed regulatory arrangements, the AER notes that a single consumer protection framework applying to all energy services offers many advantages over multiple frameworks covering different providers. In the next chapter, we consider the structure of a potential unified consumer protection framework for energy services.

³⁴ Australian Energy Market Commission, *Review of regulatory arrangements for embedded networks*, 2017.

5 Potential future framework

This chapter outlines a potential framework that could be considered as part of any deliberations about future changes to the regulatory arrangements for energy consumer protections. It draws on the AER's analysis presented in previous chapters of this report.

The potential framework encompasses 3 main elements:

- expanding the scope of the NECF to capture new energy services (see section 5.1)
- incorporating principles-based regulation including an overarching consumer duty and supported by clear consumer outcomes (section 5.2) – this would operate alongside the current prescriptive elements for traditional energy retail services
- adjustments to the existing authorisation process (section 5.3).

In this chapter we also separately consider the question of the regulatory treatment of bulk and chilled hot water from a consumer protections perspective (section 5.4).

5.1 Expanding the scope of the NECF

Having established a case for all energy products and services to be regulated under a single consumer protection framework (see Chapter 4), a first step is to consider how the scope of the NECF could be expanded to encompass new energy services.

During this review, the AER consulted extensively with stakeholders about the appropriate scope of any future energy consumer protection framework. Many stakeholders, such as consumer and retailer groups, support the AER revising the energy consumer protection framework to capture new and emerging services. These stakeholders emphasised the importance of incorporating flexibility into the future framework to mitigate unforeseen changes and risks in the market.

On the other hand, some retailers, distributors and most innovators expressed concerns regarding the regulation of emerging markets. They questioned whether a revised NECF would adequately address the uncertainties of the future market and mitigate potential risks, as we do not know exactly what new services will emerge. Further, they argue that excessive regulation may stifle innovation, impose unnecessary regulatory burdens on providers and undermine investor confidence. In an ESB-facilitated workshop, stakeholders expressed the view that the following types of energy services and providers should be captured by any future framework that is designed to mitigate the risks to consumers associated with new energy services:

- anything that has the ability to impact or interrupt the supply of energy to the consumer
- anything controlled by a third party where decisions are being made by someone other than the consumer themselves
- aggregators that sell and supply electricity into the market from controlling consumer energy resources (such as rooftop solar panels and storage batteries)
- aggregators (under an energy management system commercial arrangement) that control consumers' devices where there may be a risk that appliances lose supply (for example, if the bills are not paid)

- energy-related service contracts.

These types of services and providers could be captured by broadening the definition of service provider within the NECF to include the provision of any energy service that:

- sells electricity to a consumer's premises
- unless exempted, on-sells or exports energy from an embedded network or manages the flow of electricity to and from an embedded network
- exports electricity from a consumer's premises
- controls, constrains, prevents or otherwise has a substantial impact on the flow of electricity to and from a consumer's premises.

This definition, which has been developed in conjunction with stakeholders, places the framework's focus on energy services rather than consumer energy resources assets (such as electric vehicles or batteries). It would ensure that new energy services that are already available – such as aggregation and home energy management services – would be captured under the framework, yet it is flexible enough to accommodate any new innovations without the need for continual legislative updates.

However, the AER notes that the above definition would not capture the regulation of public electrical vehicle charging (for example, at streetside, office building, shopping centres and service stations). This emerged as a policy issue during the AER's review process. As outlined in Box 5.1, the AER does not consider there to be a strong case for electrical vehicle charging at public facilities to be regulated in the energy-specific future consumer protection framework because it does not interact directly with the supply of energy to household premises and the risks of consumer harms are relatively low. However, this is a matter that jurisdictional policy makers may want to explore further.

Box 5.1 Should public electric vehicle charging be included in the scope of the future consumer protection framework

This review has examined whether electric vehicle (EV) charging at public facilities (for example, at streetside, office building, shopping centres and service stations) should be included within the scope of the future energy-specific consumer protection framework. Given that EV charging is an emerging service, the scope and scale of consumer protection harms are not yet fully clear.

The AER has analysed this issue, with significant input from stakeholders, alongside our own research in the existing protections for electric vehicle owners using public charging facilities.

Diverse views were expressed on this issue during our consultation with stakeholders. Some consumer groups see the potential for public charging to pose consumer risks that should be mitigated under the energy consumer protections framework, particularly given the increasing importance of ensuring consumer access to EV charging in the future. However, representatives from the electric vehicle industry argued that public charging should be treated the same way as the purchase of petrol or diesel for internal combustion engine cars, which is not protected in the same way as energy supply to the home. Instead, the EV industry suggests that the ACL provides adequate consumer protections for public EV charging services.

After careful consideration, the AER has concluded that there currently is not a strong case for public EV charging to be captured under energy-specific consumer protection because:

- there is a clear separation of public EV charging from a consumer's premises (and hence the essential supply of energy)
- the harms associated with EV charging occurring at public facilities is likely to be low given the availability of choice and the transitory nature of EV charging (for example, consumers can use various charge points without being tied to binding contracts).

The AER considers that the main risks associated with public EV charging relate to technical and maintenance standards, and notes other work is being undertaken to address such matters. For example, the ESB has considered the rationale and options for capturing 'standing data' for new EV supply equipment installations and will support the Australian Energy Market Operator to propose a rule change to expand current arrangements for the Distributed Energy Resources Register to include EV supply equipment.³⁵ Furthermore, the ESB has been developing policy advice on what technical foundations are needed to support the effective integration of smart charging for EVs into the National Electricity Market. This work is being progressed through the ESB's Interoperability, Data Strategy and Customer Insights Collaboration workstreams.³⁶ The AER believes public EV charging will be more appropriately covered in these other review processes.

5.2 Incorporating principles-based regulation

The AER has examined the framing and operation of the NECF to explore whether, even if its scope were broadened, the existing regulations under the NECF could be applied appropriately to new energy services.

As previously noted in this report, the current NECF was developed to regulate a very specific relationship between energy retailers and consumers – namely, the sale of energy to customers for premises. This framework is generally highly prescriptive in nature, reflecting the essential nature of traditional energy services.

The AER's analysis suggests that the NECF's highly prescriptive obligations that were designed specifically for retail supply contracts could not easily be transferred and applied to new energy products and services, given the diversity of providers and types of new energy offerings emerging in the energy market.

Examples of the prescriptive obligations in the NECF that are specific to traditional retail arrangements, and which may not be suitable for new services include:

- specific provisions for retail contract arrangements, such as standing and market offer contracts, deemed customer arrangements, prepayment meter arrangements and obligations related to the Energy Made Easy price comparator (contained in Part 2 of the National Energy Retail Rules)

³⁵ ESB, *Electric Vehicle Supply Equipment Standing Data Consultation Paper*, December 2022.

³⁶ ESB, *Electric Vehicle Smart Charging Issues Paper*, July 2022.

- specific model terms and conditions for retail contracts, requirements for retail bills to be based on metered energy use and specific requirements for estimation (Part 2)
- specific obligations for retailers and distributors for de-energising and re-energising customer premises in relation to grid supply (Part 6)
- life support obligations and requirements for retailers and distributors to record particular customer information and provide specific information and advice regarding grid-supplied energy to the premises (Part 7).

Furthermore, at a time when there is significant innovation occurring in the energy market, it is difficult to forecast or predict the nature and scope of any future new services that are likely to be offered. This creates challenges for prescriptive regulatory frameworks such as the NECF. Therefore, the need for adaptability and flexibility would be an important feature of any future regulatory model for energy consumer protection.

One option that could be considered by jurisdictional policy makers is a shift to the greater use of principles-based regulation – which relies on principles rather than prescriptive rules to articulate the outcomes to be achieved by the regulated entities. Such an approach could focus on new energy services, while traditional services would continue to be subject to prescriptive regulation at least in the short to medium term.

In an options paper published in October 2022,³⁷ the AER consulted on a number of different approaches to updating the NECF. These options included adopting principles and outcomes-based approaches to regulation. A principles-based approach relies on principles to articulate the outcomes to be achieved by regulated entities. These are general rules that all regulated entities should observe and avoids reliance on detailed prescriptive rules³⁸. An outcomes-based approach is one where legislation sets the objectives that the regulated entity should meet and places the onus on the service provider to develop a method as to how they meet the objectives. The specific options consulted on and the stakeholder submissions received are outlined in more detail in Attachment 2.

The AER considers that a principles-based approach – for example, specifying that the service provider should act in the best interests of consumers – could incorporate greater flexibility within the energy consumer protections framework to adjust to new energy services and innovations that may arise through the transition while protecting consumers from risk of harm. It also offers a light touch approach to the mitigation of risks from the new services, thereby reducing the burden of regulation. A principles-based approach for new energy services would also help to support innovation in the sector by avoiding prescription.

A principles-based approach, supported by consumer outcomes, offers the ability to:

- focus service providers on achieving good outcomes for consumers, while reducing regulatory complexity by overcoming the need to specify actions under a prescriptive framework

³⁷ AER, *Review of Consumer Protections for future energy services - Options paper*, October 2022.

³⁸ Australian Law Reform Commission, [Regulatory theory](#), 16 August 2010.

- apply to different types of energy services, enabling service providers to undertake relevant actions to best meet the principles according to the particular needs of their customers
- enable the regulatory framework to facilitate the development of further innovative energy services, delivering good consumer outcomes and other benefits over time
- minimise regulatory burdens because businesses are free to find the most cost-efficient way of achieving the outcomes that are required under regulatory framework.

Conversely, a principles-based approach may also create some potential costs and challenges for industry participants. For example, it would introduce complexity and uncertainty for service providers and consumers, with the potential for differing interpretations of consumer needs. Relatedly, it would require new arrangements around enforcement and compliance, which would differ from those established under a prescriptive framework. Considerations include whether the AER would provide guidance to regulated entities around compliance and the role of the AER in overseeing compliance plans.

Therefore, a principles-based approach would require careful consideration and consultation with impacted industry participants and service providers.

As shown in Box 5.2, there are many examples of principles-based regulation introduced into previously prescriptive frameworks in other sectors and other jurisdictions. These recognise the advantages of applying principles rather than rules, particularly in markets that are growing in complexity (like energy).

Box 5.2 Trend towards principles-based regulation – examples from other sectors and jurisdictions

- Domestic and non-domestic standards of conduct regulated by Great Britain's Office of Gas and Electricity Markets (Ofgem): Ofgem, Britain's energy regulator and rule making body, introduced enforceable principle-based rules to apply across a range of retailer and service provider activities. The principles are supported by guidance documents to assist energy retailers and service providers interpret the principles. Ofgem is also able to introduce new licence categories for different types of emerging energy services as needed and has started to do so. Licence conditions for these new categories can be tailored as needed to manage distinct service characteristics.
- Victoria's Environment Protection Act 2017 governed by the Environment Protection Authority Victoria: The Act provides for a general environmental duty that requires entities captured by the framework to reduce environmental risks of pollution from waste produced by their activities to the environment and human health. The Act has an outcomes-based focus for the environment, including a duty to disclose and notify. The Act also includes guidance materials to help duty holders understand and better meet expected requirements.
- Consumer duty regulated by the UK Financial Conduct Authority: This is an overarching conduct duty designed to deliver a higher standard of protection for customers of financial services across a range of sectors. It establishes expectations for providers to achieve good consumer outcomes and strive to support consumers to make informed, effective decisions and undertake actions in their interests to pursue their financial objectives.

- Conduct duty incorporated in the *Corporations Act 2001*: The Act includes a conduct obligation that requires financial services licensees to do all things necessary to ensure their services are provided efficiently, honestly and fairly. Since its introduction, the Australian Securities and Investments Commission has applied the ‘efficiently, honestly and fairly’ provision in a number of cases against financial firms. The wide spectrum of matters that the courts have considered include: business models and the design of financial products; risk management, including compliance frameworks, controls, monitoring, due diligence and conflict management; sales techniques, including the content and tone of communication with customers, what was said and not said, the use of behavioural science techniques (social proofing) and sales closing techniques; and marketing material.

5.2.1 Overarching consumer duty

An integral part of a shift towards a more principles-based regulatory model would be the introduction of an overarching consumer duty, universal applied across all entities that fall within the scope of an expanded NECF definition (for example, retailers, distributors and providers of new energy services). This duty would create expectations for providers to act in the interests of consumers and ensure good consumer outcomes. As shown in Box 5.2, similar duties are already an integral feature of other regulatory frameworks.

The introduction of an overarching consumer duty would ensure a focus on achieving favourable consumer outcomes, recognising the growing role that consumers are playing in the energy market. The duty could also be complemented by specified consumer outcomes (discussed further in section 5.2.2).

The introduction of a consumer duty that would require providers to consider the interests of consumers (not just in supplying energy, but also in acquiring energy services from their customers) could be a powerful mechanism to promote consumer trust and confidence in their dealings with providers of new energy services. It would likely encourage the wider take-up of consumer energy resources, which will be a critical component in the energy transition.

5.2.2 Complementing an overarching duty with consumer outcomes

Under a potential framework for reform, an overarching duty could be complemented by clearly defined consumer outcomes that regulated entities would need to achieve. These outcomes could include those presented in Table 3.1 in Chapter 3. These are summarised here below:

- contracts must meet consumer needs
- consumers should get access to their energy supply when needed and providers should clearly explain the implications of controlling their assets
- consumers have access to free, timely and fair dispute resolution
- consumers are provided with key information so they understand the value and appropriateness of the service for their needs
- the service performs in the intended way and meets consumers’ expectations
- consumers continue to receive energy services where they are experiencing hardship.

The establishment of an overarching duty complemented by enduring universal outcomes has particular benefits in emerging markets, where competition (and its beneficial impacts on consumers) may still be immature. Specifying outcomes in this way would help to ensure that there are a set of enduring and universal expectations on regulated entities to behave in a way that ensures consumer interests are protected as new energy services develop and evolve through the energy transition.

As discussed in Chapter 3, consumers are no longer merely purchasers of energy supplies. Through the wider take-up of consumer energy resources such as PV solar panels, consumers are also increasingly becoming producers of energy. In this sense, consumers are forming business partnerships with retailers and new energy service providers, yet they remain at an insurmountable disadvantage in terms of understanding the technical nature of the services involved and the market into which they are supplied.

As noted in Chapter 3, these challenges and risks may also be exacerbated by contracts that link the supply of energy services with high-cost capital investment in consumer energy resources assets and where customers may experience payment difficulty.

As these emerging markets develop and with competition at an immature stage, the potential for customers to receive poor outcomes – either through pricing or service – is heightened. Furthermore, because of the nature of the emerging services and their complexity and the imbalance in the relationship between the customer and the provider, it may not always be easy to discern or evidence the conduct that has led to the poor outcomes. This creates particular concerns when the new services that are being considered are essential and where there is a risk of material harm (for the reasons set out in Chapter 3).

Therefore, an overarching duty based on service providers acting in the interests of consumers complemented by outcomes is suited to such an emerging markets environment involving complexity and an imbalance of bargaining power.

It is also doubtful that prescriptive regulation can fully equip or protect the customer as these emerging markets and services develop, or deliver the necessary consumer trust and confidence to drive the take up and use of consumer energy resources in a manner that can support a low cost energy transition.

5.3 Modifications to the existing authorisation process

As outlined in Chapter 1, the AER administers the NECF and market entry through an authorisation process, which assesses the ability, financial viability and suitability of providers to act as energy retailers, with exemptions available under certain circumstances.

Any jurisdictional work to progress reforms to the NECF could also address flaws in the current authorisation process for energy retail applications, which the AER has identified in the process of administering the framework over time. We identified and consulted on these concerns in our April 2022 issues paper as part of this review. They include:

- the provision of a ‘one-size-fits-all’ authorisation category that is used regardless of business model, which the AER considers to be unsuitable in many instances

- the provision of authorisations in perpetuity, without the ability for review where entrants may substantially vary their business model or operations after entry, which can result in consumer harm.

These concerns could be addressed by introducing conditional or limited authorisations enabling them to be tailored to risk. In particular, an authorisation could be granted based on fulfilling regulatory requirements with respect to a proposed service model. This could be achieved by applying conditions to the authorisation.

The benefits of this approach include lowering regulatory costs to business by tailoring the authorisation process, so that it is only focused on demonstrating the specific capabilities needed to deliver their proposed service offering.

Conditions with ongoing validity also improve provider accountability, ensuring providers maintain appropriate capabilities – for example, if there are changes in business ownership or when the provider modifies its service offerings.

Introducing authorisation conditions would also increase the suite of regulatory compliance tools to address provider compliance failures. In particular, the AER would benefit from being able to vary and impose additional licence conditions or remove licence authorisations, where necessary, such as when there have been serious contraventions of obligations by authorised entities.

5.4 Treatment of bulk hot and chilled water

Throughout this review many stakeholders have raised the need to include bulk hot and chilled water in embedded networks in the regulatory scope of the NECF given identified gaps in consumer protections.

Through the AER's consultation on the Retail Exempt Selling Guideline in 2021, advocates such as the Energy and Water Ombudsman of NSW and PIAC highlighted the poor outcomes that have arisen in relation to bulk hot and chilled water. The sale of bulk hot/chilled water currently falls under the general provisions of the ACL. However, the sale of bulk hot/chilled water does not fall within the NECF as it is not a sale of electricity or gas.

The lack of specific consumer protections over these services means customer non-payment could result in disconnection at any time, bills may not include adequate usage information and sellers may not have appropriate dispute resolution processes in place.

We consider the question of whether to extend regulatory protections for these services under the NECF is ultimately a policy decision that would require further consideration by policy makers. This is beyond the scope of our current considerations and we flag it as an issue for policy makers to consider further.

6 Implementation considerations

This chapter highlights some key implementation issues in moving to the potential new framework for energy services outlined in Chapter 5 and areas where further investigation will be required.

6.1 Need for an incremental approach with supporting elements

The AER recognises that a broadening of the scope of the NECF to capture new energy services and the introduction of an overarching consumer duty requires an incremental approach that preserves current consumer protections and allows market participants time to understand and adjust to any new regulatory obligations.

The successful implementation of an overarching consumer duty would rely on a range of supporting elements, including:

- Retaining the existing prescription-based approach for traditional energy retail services.
- An appropriate market entry process to maintain regulatory oversight over new entrants into the market – a risk-based approach, tailored according to potential consumer risk and need, could be adopted to market entry obligations.
- The development of an appropriate compliance and enforcement framework – this could include monitoring of providers to gauge their success in adhering to the duty requirements, ongoing reporting obligations and the ability to seek penalties from the courts for non-compliance. However, care would need to be taken that the compliance framework does not impose unnecessarily high regulatory burdens.
- Industry education and consumer information – there would need to be a comprehensive communications campaign, with a suite of guidance material, to ensure that industry participants understand their new regulatory obligations under the duty and consumers are aware of their rights under the new framework.

6.2 Key areas for further consideration

Further work would be required ahead of the adoption and transition to a revised energy consumer protection framework, along with consideration of other matters, such as:

- how the prescriptive obligations would interact with principles-based elements of the regulatory framework – which prescriptive obligations should be retained for existing, ‘traditional’ services, and in which form, and which (if any) should be extended to new energy services. For example, consideration would need to be given to whether prescriptive obligations governing matters such as life support and energy hardship should be extended to new energy services.
- how specific issues raised as part of the AER’s review process would be handled under a new framework (for instance, exempt selling arrangements and consumer protections for bulk hot and chilled water and common area electric vehicle charging in embedded networks).

The AER has already undertaken some preliminary analysis of these implementation issues and can assist energy ministers and jurisdictions further in any future deliberations about the energy consumer protection framework.

Attachment 1: Detailed risk analysis

A1.1 Identifying risks from new energy products and services

This attachment presents further detail on the AER's assessment of the risks associated with new energy products and services. It underpins the conclusions presented in Chapter 3 of the main report about the probable and material key risk themes that are not currently covered by current energy consumer protection arrangements.

Throughout our risk analysis process, the AER collaborated with stakeholders and the ESB, and explored the potential benefits, impacts and risks associated with the adoption of new energy products and services. We also explored the potential mitigants provided under the Australian Consumer Law (ACL).

Table A1.1 summarises the benefits, risks and existing mitigants under the ALC for a number of new energy offerings, including electric vehicle charging, aggregation, energy management systems, multiple energy provider models, embedded networks and microgrids, and community batteries. These types of services are already available in the market and their characteristics help indicate the risks that may arise for other future unknown energy services.

The rest of this attachment is arranged as follows:

- The different types of consumers considered in the risk analysis are outlined in section A1.2.
- The various risks are grouped into risk themes in section A1.3.
- Section A1.4 presents a mapping of risks using 'customer journey' analysis to identify risks that emerge at various stages of a consumer's interactions with energy offerings.
- A probability and material analysis is presented in section A1.5, which determines the key risk themes that consumers are not protected from adequately under the existing energy consumer protection framework.
- Section A1.6 presents case studies that help to illustrate the key risk themes.

Table A1.1 New energy products and services – benefits, risks and potential mitigants under the Australian Consumer Law

New product/service	Benefit/value for consumers	Risks	Potential ACL mitigants
<p>Electric vehicle (EV) charging</p> <p>EV charging can take 2 major forms:</p> <p>1) Where an EV charging service provider sells electricity to the end consumer at their premises (household or business), in which case it is likely be captured under the NECF.</p> <p>2) Where an EV charging service provider sells electricity to the end consumer at a premises that the end consumer does not own or occupy (e.g., streetside EV charger, office building or a service station). This is unlikely to be captured by the NECF.</p>	<ul style="list-style-type: none"> Increased options to access charging points at consumers' convenience (e.g., consumers may charge their vehicle while they work/shop) EV charging plans may: offer better rates, incentivise charging when there is surplus generation from consumer energy resources on the electricity grid, or be better value Avoid market volatility – using EV for storage or as a battery 	<ul style="list-style-type: none"> Access to EV charger is not an essential service (however, this may change once EVs become the main type of vehicle used by consumers) Access to other EV charging providers could be restricted by an EV charging arrangement Consumers may not receive enough information to understand their EV charging arrangement and to help them make informed decisions Social and financial barriers may prevent consumer access and make it difficult for them to understand what they are signing up to Dispute resolution mechanisms are unclear Potential loss of control and agency for those who have EVs Energy security/market price volatility Overlapping sector transition: energy and transport Multiple jurisdictions: federal/state/local 	<ul style="list-style-type: none"> Section 18: misleading or deceptive conduct as to cost of service, liability for loss/damages, additional services Sections 29 and 34: false or misleading representations as to quality of service and misleading conduct about the nature of the services – e.g., claims of 'fastest or cheapest EV charging' Part 3-1: unfair practices, including offering rebates, gifts or prices, false, misleading representations, bait advertising and referral selling Part 3-2, Div 2: unsolicited consumer agreements Part 2-2, Ch 2: unconscionable conduct Part 3-1, Div 2, Sections 40–42: unsolicited supply of goods and services Part 3-2, Div 1: consumer guarantees for the supply of goods and services, and liability of manufacturers for goods with safety defects

New product/service	Benefit/value for consumers	Risks	Potential ACL mitigants
			<ul style="list-style-type: none"> Part 3-3 of ACL: product safety, recall and reporting
<p>Aggregation and/or energy management services</p> <p>Aggregation services use behind-the-meter consumer energy resources, smart devices or a combination of both to manage energy usage at a premises and export of energy to the grid.</p> <p>Aggregation can operate with an energy management service or separately.</p> <p>Aggregators are already aggregating capacity from consumer energy resources assets located at the premises of multiple end consumers to provide ancillary services to the National Energy Market.</p> <p>Energy management services can operate with aggregation services or independently. They work generally by using software to manage a consumer's energy consumption. This can include turning devices on and off remotely, and/or setting devices to operate within certain rules or conditions. They can reduce energy consumption or optimise</p>	<ul style="list-style-type: none"> Consumers can export energy back into the grid where it can be aggregated with other latent consumer energy resources capacity Consumers may participate in aggregation services and be paid for it Consumers may optimise the consumption of energy on their premises, thus reducing their energy bills Potential to minimise complexity and convenient for consumers (all in one package) 	<ul style="list-style-type: none"> These products/services are unlikely to be an essential service Lack of protection for consumers (especially vulnerable consumers) If consumer defaults on payment, consumer's access to energy is at risk Consumer signs up to a service that allows an aggregator/retailer to control their smart appliances/solar PV to arbitrage the wholesale energy market; additionally, they may not know who is managing access to their devices Long-term lock-in contracts and lack of ability to switch providers Aggregation and energy management devices/services may be too complex for consumers to understand – consumers may not understand what they are signing up to Unclear who is responsible for resolving dispute and the expansion in product/service offerings will make 	<ul style="list-style-type: none"> Section 18: misleading or deceptive conduct as to cost of service, liability for loss/damages, additional services Sections 29 and 34: false or misleading reps as to quality of service, and misleading conduct about the nature of the services Part 3-1: unfair practices, including offering rebates, gifts or prices, false, misleading representations, bait advertising and referral selling Part 3-2, Div 2: unsolicited consumer agreements Part 2-2, Ch 2: unconscionable conduct Part 3-1, Div 2, Sections 40–42: unsolicited supply of goods and services Part 3-2, Div 1: consumer guarantees for the supply of goods and services, and liability of manufacturers for goods with safety defects

New product/service	Benefit/value for consumers	Risks	Potential ACL mitigants
<p>energy usage between consumer energy resources located at a consumer's premises and the electricity network, which may lead to bill savings for consumers.</p>		<p>it difficult to access dispute resolution processes</p> <ul style="list-style-type: none"> • Consumers who are locked into a contract to pay off a device/asset are unable to take the device/asset when they leave the premises, but are still required to pay the outstanding debt • Scheduling obligations and/or liability can be passed onto a consumer • If the system fails, it may affect other systems within the premises • Data and privacy issues • The Retailer of Last Resort scheme is unlikely to apply if the provider is not an authorised retailer • Consumer energy resources telemetry and portability may not be available • Information asymmetry • Interoperability – minimums standard of requirements 	<ul style="list-style-type: none"> • Part 3-3: product safety, recall and reporting
<p>Multiple energy providers Consumers may soon be able to have multiple energy providers at their premises, with each provider supplying a different type of energy</p>	<ul style="list-style-type: none"> • Allow consumers to engage another provider for energy services, which will unlock value from consumer energy resources assets or enable 	<ul style="list-style-type: none"> • These models are unlikely to be essential • Consumers may not be aware that a multiple provider arrangement exists at their premises 	<ul style="list-style-type: none"> • Section 18: misleading or deceptive conduct as to cost of service, liability for loss/damages, additional services

New product/service	Benefit/value for consumers	Risks	Potential ACL mitigants
<p>service. For example, in one household there could be arrangements in place whereby:</p> <ul style="list-style-type: none"> • a retailer provides the supply of electricity • an aggregator uses the solar panels and battery on the premises to provide grid support services. <p>The multiple energy providers scenario may overlap with the aggregation and/or energy management services scenario.</p>	<p>the supply of a specific asset/appliance</p> <ul style="list-style-type: none"> • Potentially more offerings, greater flexibility, simplicity, equity and more efficient home energy system • Increased competition and provide better deals for consumers 	<ul style="list-style-type: none"> • Future property owners may be bound by multiple provider arrangements entered into by a previous owner • Switching providers may be inhibited if consumers are locked into a service • Complexity in service arrangements and multiple provider models may: <ul style="list-style-type: none"> – enable energy services and products to be marketed in ways that take advantage and mislead consumers – affect consumer trust – result in consumers having to manage multiple relationships with different entities, which may result in a financial mismatch between arrangements – prevent vulnerable users from understanding the complex products/services, which may result in payment difficulties and they may not be able to access hardship arrangements for any secondary connections – make it hard for consumers to understand who to contact with a 	<ul style="list-style-type: none"> • Sections 29 and 34: false or misleading representations as to quality of service and misleading conduct about the nature of the services • Part 3-1: unfair practices, including offering rebates, gifts or prices, false, misleading representations, bait advertising and referral selling • Part 3-2, Div 2: unsolicited consumer agreements • Part 2-2, Ch 2: unconscionable conduct • Part 3-1, Div 2, Sections 40–42: unsolicited supply of goods and services • Part 3-2, Div 1: consumer guarantees for the supply of goods and services, and liability of manufacturers for goods with safety defects • Part 3-3: product safety, recall and reporting

New product/service	Benefit/value for consumers	Risks	Potential ACL mitigants
		<p>complaint or issue – services provided via the secondary connection point may not be covered by National Energy Consumer Framework (NECF), thus may not have dispute resolution arrangements</p> <ul style="list-style-type: none"> • Data protection and privacy • Balancing more options with simplicity • Equity to balance the benefits for one consumer with the overall network/system 	
<p>Embedded networks and microgrids</p> <p>Embedded networks (EN) may contain consumer energy resources assets that are controlled and operated by the embedded network operator. For example, an apartment complex that is an EN could have a community battery. The EN framework may also limit the opportunities apartment owners have to use their consumer energy resources or flexible demand within the National Energy Market.</p> <p>Some ENs may take the form of microgrids, where the EN owner</p>	<ul style="list-style-type: none"> • Apartment complex may lower electricity costs by optimising the usage of the consumer energy resources assets within the EN • Reduce cost to build greenfield residential buildings, which reduces costs for consumers to purchase property 	<ul style="list-style-type: none"> • ENs are mostly owned by an entity and the savings accrued will generally not be shared with EN occupants; hence, occupants often receive minimal discount from the maximum price • Consumers are disadvantaged due to: <ul style="list-style-type: none"> – lack of practical access to competition, transparency and lack of choice available to consumers – EN occupants are generally unable to install solar PV systems 	<ul style="list-style-type: none"> • No potential mitigants

New product/service	Benefit/value for consumers	Risks	Potential ACL mitigants
<p>may seek to optimise a range of solar and battery resources on the EN and sell surplus energy into the grid.</p> <p>For our assessment, we propose to use a scenario of an apartment complex that is an EN with consumer energy resources on site and manages how they are used.</p>		<ul style="list-style-type: none"> or batteries at their individual premises – prospective occupants are not provided adequate information on the energy supply arrangements and limitations in an EN – consumers may not understand how an EN impacts their energy supply, usage and pricing, which puts vulnerable consumers at a higher risk • Insufficient monitoring and enforcement powers of these regulations 	
<p>Community batteries</p> <p>Housing development with community battery that households can sell solar-generated electricity to and then supplies whole development. Apartment complex with solar panels on their roof connected to a community battery. This is operated by the strata, who decides when the battery is charged and discharged.</p>	<ul style="list-style-type: none"> • Potential costs savings from reduced network costs • Community ‘vibes’ • Consumers contributing to energy transition • Possible more price stability • Consumers independent from large or traditional providers • Potential for more reliable energy supply 	<ul style="list-style-type: none"> • Consumer lock-in contracts/higher price • Consumer may be unable to make informed decisions • Complexity of information and contracts – vulnerable people have less understanding of the risks up front • Dealing with interpersonal conflicts • It may disincentivise other consumer energy resources • Undermines ‘open access’ principle for consumer energy resources 	<ul style="list-style-type: none"> • Section 18: misleading or deceptive conduct as to cost of service, liability for loss/damages, additional services • Sections 29 and 34: false or misleading representations as to quality of service and misleading conduct about the nature of the services. • Part 3-1: unfair practices, including offering rebates, gifts or prices, false, misleading representations, bait advertising and referral selling

Review of consumer protections for future energy services

New product/service	Benefit/value for consumers	Risks	Potential ACL mitigants
		<ul style="list-style-type: none"> No financial hardship plan 	<ul style="list-style-type: none"> Part 3-2, Div 2: unsolicited consumer agreements Part 2-2, Ch 2: unconscionable conduct Part 3-1, Div 2, Sections 40–42: unsolicited supply of goods and services Part 3-2, Div 1: consumer guarantees for the supply of goods and services, and liability of manufacturers for goods with safety defects Part 3-3: product safety, recall and reporting

A1.2 Different types of consumers

In undertaking the risk analysis, we recognised the diversity of consumers within the energy market and used various consumer ‘archetypes’ (see Table A1.2) to draw out the risks that may be faced by different types of consumers.

Table A1.2 Consumer archetypes used in the risk identification process

Consumer archetypes	Description
Single mum with two teenagers	The Brown household has 3 members – Mary Brown (35) is a single mum who works full-time in the local supermarket and she has 2 teenage sons – Ethan (15) and Luke (13). They rent a unit.
Accountant	Soraya runs a small accountancy practice in the inner suburbs. Her practice operates in a tenanted building that includes similar like-minded small professional services businesses.
Hairdresser	Muktar runs a busy hairdressing salon, with an apprentice to assist him. He operates from a shop in a suburban shopping strip alongside the types of shops that would be expected in a small shopping strip.
Family with two young children	The Chan household has 4 members – John Chan (38) works part-time for the local council, Anne Chan (36) works full-time as a nurse, and they have 2 children – Harry (6) and Laura (4). They own their own home.
Small manufacturer	Alan runs a small, energy-intensive manufacturing business in the suburbs. The business is operated from premises that are owned by Alan. As energy costs are a significant cost input to the business, Alan takes responsibility for all matters relating to energy within the business.
‘Battler Bob’	Bob (62) has been a battler his whole life. He has struggled to hold down jobs for any extended period of time and has moved in and out of different accommodation. He has now secured public housing accommodation and is on a pension.

A1.3 Grouping the risks into themes

Through our preliminary risk identification, we identified a range of risks. After thoroughly reviewing the list of risks, we identified common factors that link certain risks together. These clusters formed the basis of our risk themes (see Table A1.3).

Many of the risk themes identified in Table A1.3 cannot currently be resolved through ombudsmen schemes if they are related to new energy offerings.

Table A1.3 Risk themes identified

Risk theme	Description
Access	Are there barriers to consumers accessing certain products/services (for example, financial, infrastructure, understandability)?
Appropriate technical standards	Are there technical standards in place to ensure an energy product works the way it should and can communicate and interact with the energy system and other energy products?
Bundling	Are bundled products and services appropriate for the consumer's circumstances? Are they explained properly to reduce complexity? What happens if one component of the bundle stops working?
Contracts	Can the consumer understand the contract terms and conditions and whether they are fit for purpose for their circumstances? Consumers need to be made aware of the financial commitment and any lock-in terms.
Control of assets	What are the implications for consumers if a product or service in their household is being remotely controlled by a provider? Are there checks and balances in place to ensure decisions about managing the product or service are to the consumer's benefit?
Data	How is the consumer's data being used and shared with third parties?
Dispute resolution	Do consumers have access to dispute resolution when something goes wrong?
Payment difficulty	Are there processes in place to support consumers if their circumstances change and/or they can no longer pay their bills?
Information provision	Are consumers being provided with key information at the point of sale so they understand the value, costs, fit/appropriateness and complexity of the product or service?
Poor conduct	Are energy providers meeting sufficiently high standards of conduct to ensure consumers have trust in the sector and are not experiencing detriment resulting from poor conduct?
Performance of services	Does the service perform in the intended way?
Energy provider failure	What are the implications for consumers of a non-traditional energy service if a provider goes out of business?

A1.4 Mapping risks using ‘customer journey’ analysis

The systematic approach of creating customer journeys for the new product and services included in Table A1.1 allowed us to comprehensively capture and understand the potential risks faced by consumers throughout their interaction with various energy offerings. We delineated 5 distinct stages that consumers go through regardless of the specific energy product or service they engage with:

- pre-engagement
- point of sale
- use of service
- switching providers
- end of service.

At each stage of the customer journey, we identified risks that may arise, organising them into the risk themes (see Tables A1.4 to A1.9).

Table A1.4 Electric vehicle charging customer journey

Stage of the customer journey	What might be involved	Risks	Risk themes
Pre-engagement	<ul style="list-style-type: none"> • Understanding electric vehicle (EV) charging service through online research, newsfeed and/or online media • Weighing the benefits of EV charging at home versus public EV charging 	<ul style="list-style-type: none"> • Too complex to understand and many options to choose from • Not being able to access a home EV charger due to financial circumstances and/or their place of residence • Misleading marketing materials 	<ul style="list-style-type: none"> • Information provision • Appropriate technical standards • Conduct • Access
Point of sale	<ul style="list-style-type: none"> • Signing contract to purchase EV charger – might include another product/service (bundle) • Upgrading home’s energy infrastructure to include charging station 	<ul style="list-style-type: none"> • May not receive enough information to understand their EV charging arrangement to help them make informed decisions (e.g., transparency of costs and potential value) • Social and financial barriers make it difficult for them to understand what they are signing up to • Safety and installation risks • Lock-in or fit-for-purpose contracts 	<ul style="list-style-type: none"> • Information provision • Contract • Conduct • Bundling
Use of service	<ul style="list-style-type: none"> • Charging EV both at home and using public charging infrastructure – depending on their movements/type of dwelling 	<ul style="list-style-type: none"> • Dispute resolution mechanisms unclear • Potential loss of control and agency for those who have EVs • Energy security/market price volatility 	<ul style="list-style-type: none"> • Appropriate technical standards • Data • Control of assets • Performance of services • Bundling

Review of consumer protections for future energy services

Stage of the customer journey	What might be involved	Risks	Risk themes
		<ul style="list-style-type: none"> • Customers who cannot install EV charging at home may not benefit • EV charger not compatible with existing energy system • Access to other EV charging providers restricted by EV charging arrangement • Data and privacy 	<ul style="list-style-type: none"> • Information provision • Hardship or change in circumstance • Dispute resolution • Access • Conduct
Switching providers	<ul style="list-style-type: none"> • End of contract • Switching to a new provider • Switching back to a previous provider • Moving homes 	<ul style="list-style-type: none"> • Dispute resolution mechanisms unclear • Lock-in contract prevents switching providers • Access to other EV charging providers could be restricted by an EV charging arrangement (public EV charging) 	<ul style="list-style-type: none"> • Information provision • Hardship or change in circumstance • Dispute resolution • Contract • Conduct
End of service	<ul style="list-style-type: none"> • End of life of a product • Warranties 	<ul style="list-style-type: none"> • Dispute resolution mechanisms unclear • Too complex to understand • System failure 	<ul style="list-style-type: none"> • Information provision • Dispute resolution • Performance of services • Energy provider failure • Conduct • Contract

Table A1.5 Aggregation customer journey

Stage of the customer journey	What might be involved	Risks	Risk themes
Pre-engagement	<ul style="list-style-type: none"> • Understanding aggregation services through online research, newsfeed and/or online media • Weighing the benefits of adopting aggregation services compared with their current energy set-up • Finding a suitable aggregation service 	<ul style="list-style-type: none"> • Too complex to understand and many options to choose from • Not being able to access/install aggregation services due to financial circumstances and/or their place of residence • Not aware that an aggregation service exists at the premises • Misleading marketing materials 	<ul style="list-style-type: none"> • Information provision • Appropriate technical standards • Conduct • Access
Point of sale	<ul style="list-style-type: none"> • Signing contract with aggregation service provider – might include another product/service (bundle) 	<ul style="list-style-type: none"> • Lock-in contracts • Complex information – not understanding the costs and potential value • Information asymmetry • Interoperability • Safety and installation risks 	<ul style="list-style-type: none"> • Information provision • Contract • Conduct • Bundling
Use of service	<ul style="list-style-type: none"> • Using the aggregation service • Understanding the bill and the consumption charges 	<ul style="list-style-type: none"> • If customer defaults on payment – access to energy is at risk • Unsure who is managing access to their devices • Complexity of information/service • Dispute resolution mechanisms unclear 	<ul style="list-style-type: none"> • Appropriate technical standards • Energy provider failure • Data • Control of assets • Performance of services • Bundling

Review of consumer protections for future energy services

Stage of the customer journey	What might be involved	Risks	Risk themes
		<ul style="list-style-type: none"> • Scheduling obligations and/or liability passed onto customer • System failure or aggregation service not compatible with current energy system • Data and privacy 	<ul style="list-style-type: none"> • Information provision • Hardship or change in circumstance • Dispute resolution • Conduct
Switching providers	<ul style="list-style-type: none"> • End of contract • Switching to a new provider • Switching back to a previous provider • Moving homes 	<ul style="list-style-type: none"> • Unable to take device/asset when they vacate premises, but may be required to pay off outstanding debt • Lock-in contract prevents switching providers • Complexity of information/service 	<ul style="list-style-type: none"> • Information provision • Hardship or change in circumstance • Dispute resolution • Contract • Conduct
End of service	<ul style="list-style-type: none"> • End of life of a product • Warranties 	<ul style="list-style-type: none"> • System failure • Too complex to understand • Unclear who is responsible for resolving dispute 	<ul style="list-style-type: none"> • Information provision • Dispute resolution • Performance of services • Energy provider failure • Conduct • Contract

Table A1.6 Energy management services customer journey

Stage of the customer journey	What might be involved	Risks	Risk themes
Pre-engagement	<ul style="list-style-type: none"> • Understanding energy management services through online research, newsfeed and/or online media • Weighing the benefits of adopting energy management services compared with their current energy set-up • Finding a suitable energy management service 	<ul style="list-style-type: none"> • Too complex to understand and many options to choose from • Not being able to access/install energy management services due to financial circumstances and/or their place of residence • Not aware that an energy management service exists at the premises • Misleading marketing materials 	<ul style="list-style-type: none"> • Information provision • Appropriate technical standards • Conduct • Access
Point of sale	<ul style="list-style-type: none"> • Signing contract with energy management service provider • Considering which energy products (e.g., solar panel, batteries) would be part of the energy management service 	<ul style="list-style-type: none"> • Lock-in contracts • Too complex to understand – costs and potential value unclear • Information asymmetry • Interoperability • Safety and installation risks 	<ul style="list-style-type: none"> • Information provision • Contract • Conduct • Bundling
Use of service	<ul style="list-style-type: none"> • Using the energy management service • Understanding the bill and the consumption charges 	<ul style="list-style-type: none"> • If consumer defaults on payment – access to energy is at risk • Unsure who is managing access to their devices • Complexity of information/service • Dispute resolution mechanisms unclear 	<ul style="list-style-type: none"> • Appropriate technical standards • Energy provider failure • Data • Control of assets • Performance of services • Bundling

Review of consumer protections for future energy services

Stage of the customer journey	What might be involved	Risks	Risk themes
		<ul style="list-style-type: none"> • Scheduling obligations and/or liability passed onto consumer • System failure or services not compatible with current energy system • Data and privacy 	<ul style="list-style-type: none"> • Information provision • Hardship or change in circumstance • Dispute resolution • Conduct
Switching providers	<ul style="list-style-type: none"> • End of contract • Switching to a new provider • Switching back to a previous provider • Moving homes 	<ul style="list-style-type: none"> • Unable to take device/asset when they vacate premises, but may be required to pay off outstanding debt • Long-term lock-in contracts/lack of ability to switch providers • Too complex to understand 	<ul style="list-style-type: none"> • Information provision • Hardship or change in circumstance • Dispute resolution • Contract • Conduct
End of service	<ul style="list-style-type: none"> • End of life of a product • Warranties 	<ul style="list-style-type: none"> • System failure • Too complex to understand • Unclear who is responsible for resolving dispute 	<ul style="list-style-type: none"> • Information provision • Dispute resolution • Performance of services • Energy provider failure • Conduct • Contract

Table A1.7 Multiple energy providers customer journey

Stage of the customer journey	What might be involved	Risks	Risk themes
Pre-engagement	<ul style="list-style-type: none"> • Understanding the multiple energy providers arrangement • Weighing the benefits of the adopting multiple energy providers arrangement compared with their current energy set-up • Finding suitable multiple energy providers 	<ul style="list-style-type: none"> • Too complex to understand and many options to choose from • Not being able to access a multiple energy providers arrangement due to financial circumstances and/or their place of residence • Not aware that a multiple energy providers arrangement exists at the premises • Misleading marketing materials • Balancing more options with simplicity 	<ul style="list-style-type: none"> • Information provision • Appropriate technical standards • Conduct • Access
Point of sale	<ul style="list-style-type: none"> • Signing multiple different contracts with different multiple energy providers 	<ul style="list-style-type: none"> • Lock-in contracts • Too complex to understand – costs and potential value unclear • Information asymmetry • Interoperability • Safety and installation risks 	<ul style="list-style-type: none"> • Information provision • Contract • Conduct • Bundling
Use of service	<ul style="list-style-type: none"> • Using the multiple energy providers' arrangement/service • Understanding the bill and the consumption charges of each multiple energy provider 	<ul style="list-style-type: none"> • Having to manage multiple relationships with different entities – financial mismatch • Complex product/services – payment difficulties 	<ul style="list-style-type: none"> • Appropriate technical standards • Energy provider failure • Data • Control of assets

Review of consumer protections for future energy services

Stage of the customer journey	What might be involved	Risks	Risk themes
		<ul style="list-style-type: none"> • Dispute resolution mechanisms unclear • Data protection and privacy • Equity to balance the benefits of one consumer with the overall network/system • Services not compatible with current energy system • Loss of control of asset to third party 	<ul style="list-style-type: none"> • Performance of services • Bundling • Information provision • Hardship or change in circumstance • Dispute resolution • Conduct
Switching providers	<ul style="list-style-type: none"> • End of contract • Switching to a new provider • Switching back to a previous provider • Moving homes 	<ul style="list-style-type: none"> • Unable to take devices/assets when they vacate premises, but may be required to pay off outstanding debt • Switching providers may be inhibited by lock-in service • Complexity of information/service 	<ul style="list-style-type: none"> • Information provision • Hardship or change in circumstance • Dispute resolution • Contract • Conduct
End of service	<ul style="list-style-type: none"> • End of life of a product • Warranties 	<ul style="list-style-type: none"> • System failure • Too complex to understand • Unclear who is responsible for resolving dispute 	<ul style="list-style-type: none"> • Information provision • Dispute resolution • Performance of services • Energy provider failure • Conduct • Contract

Table A1.8 Using consumer energy resources in embedded networks customer journey

Stage of the customer journey	What might be involved	Risks	Risk themes
Pre-engagement	<ul style="list-style-type: none"> Understanding consumer energy resources through online research, newsfeed and/or online media Weighing the benefits of adopting consumer energy resources compared with their current energy set-up Choose from a limited selection of consumer energy resources 	<ul style="list-style-type: none"> Too complex to understand Not being able to access consumer energy resources due to financial circumstances and/or their place of residence Not aware that consumer energy resources is already installed at the complex Misleading marketing materials Lack of competition/choice 	<ul style="list-style-type: none"> Information provision Appropriate technical standards Conduct Access
Point of sale	<ul style="list-style-type: none"> Getting permission from apartment/townhouse body corporate to install consumer energy resources at their premises Signing contract with consumer energy resources provider 	<ul style="list-style-type: none"> Lock-in contracts Too complex to understand – costs and potential value unclear Need to apply for government rebates and grants on their own Safety and installation risks 	<ul style="list-style-type: none"> Information provision Contract Conduct
Use of service	<ul style="list-style-type: none"> Using the consumer energy resources Understanding the bill and the consumption charges 	<ul style="list-style-type: none"> Complex product/services – payment difficulties Uncertain about whom to reach out to for a complaint or issue. Consumer energy resources provider may not have signed up to an ombudsman scheme 	<ul style="list-style-type: none"> Appropriate technical standards Energy provider failure Data Control of assets Performance of services Information provision

Review of consumer protections for future energy services

Stage of the customer journey	What might be involved	Risks	Risk themes
		<ul style="list-style-type: none"> • Data protection and privacy • Consumer energy resources not compatible with current EN arrangement • Not understanding how EN impacts their energy supply, usage and pricing • Loss of control of asset to third party 	<ul style="list-style-type: none"> • Hardship or change in circumstance • Dispute resolution • Conduct
Switching providers	<ul style="list-style-type: none"> • End of contract • Switching to a new provider • Switching back to a previous provider • Moving homes 	<ul style="list-style-type: none"> • Switching providers may be inhibited by lock-in service • Complexity of information/service • Unable to take devices/assets when they vacate premises, but may be required to pay off outstanding debt • Limited hardship arrangements • Minimum disconnection provisions do not apply to EN 	<ul style="list-style-type: none"> • Information provision • Hardship or change in circumstance • Dispute resolution • Contract • Conduct
End of service	<ul style="list-style-type: none"> • End of life of a product • Warranties 	<ul style="list-style-type: none"> • System failure • Too complex to understand • Unclear who is responsible for resolving dispute 	<ul style="list-style-type: none"> • Information provision • Dispute resolution • Performance of services • Energy provider failure • Conduct • Contract

Table A1.9 Community batteries customer journey

Stage of the customer journey	What might be involved	Risks	Risk themes
Pre-engagement	<ul style="list-style-type: none"> • Understanding community batteries through online research, newsfeed and/or online media • Weighing the benefits of adopting community batteries compared with their current energy set-up • If their neighbourhood is not signed up to a community battery, they will need to locate a provider that is willing to provide the service to their neighbourhood 	<ul style="list-style-type: none"> • Too complex to understand and too many options to choose from • Not being able to access a community battery due to financial circumstances and/or their place of residence • Misleading marketing materials 	<ul style="list-style-type: none"> • Information provision • Appropriate technical standards • Conduct • Access
Point of sale	<ul style="list-style-type: none"> • If their neighbourhood already has a community battery in place, then they sign up to their neighbourhood community battery • If no community battery in neighbourhood, then a new contract with a provider will be signed 	<ul style="list-style-type: none"> • Complexity of information and contracts – costs and potential value unclear • Limited options for customers to make informed decisions • Lock-in contracts/higher price 	<ul style="list-style-type: none"> • Information provision • Contract • Conduct
Use of service	<ul style="list-style-type: none"> • Using the community battery • Understanding the bill and consumption charges 	<ul style="list-style-type: none"> • Dispute resolution mechanisms unclear • Complexity of information/service • Dealing with interpersonal conflicts • Data protection and privacy 	<ul style="list-style-type: none"> • Appropriate technical standards • Energy provider failure • Data • Control of assets • Performance of services

Stage of the customer journey	What might be involved	Risks	Risk themes
		<ul style="list-style-type: none"> • Loss of control of asset to third party • Availability of hardship and payment difficulty plans • System failure • Equity to balance the benefits for one consumer with the overall network/system 	<ul style="list-style-type: none"> • Information provision • Hardship or change in circumstance • Dispute resolution • Conduct
<p>Switching providers</p>	<ul style="list-style-type: none"> • End of contract • Switching to a new provider • Switching back to a previous provider • Moving homes 	<ul style="list-style-type: none"> • Lock-in contract prevents switching providers • Complexity of information/service • Dispute resolution mechanisms unclear 	<ul style="list-style-type: none"> • Information provision • Hardship or change in circumstance • Dispute resolution • Contract • Conduct
<p>End of service</p>	<ul style="list-style-type: none"> • End of life of a product • Warranties 	<ul style="list-style-type: none"> • System failure • Too complex to understand • Unclear who is responsible for resolving dispute 	<ul style="list-style-type: none"> • Information provision • Dispute resolution • Performance of services • Energy provider failure • Conduct • Contract

A1.5 Probability and material analysis

Following the identification of the risk themes and the customer journey mapping process, we received feedback from stakeholders recommending that we assess the probability and materiality of each individual risk theme. By evaluating qualitatively the probability and materiality of each risk theme, we could consider the overall level of consumer harm and detriment presented by each risk theme. This analysis included consideration of the extent to which the ACL and other existing consumer protections would effectively mitigate the identified risk themes.

The outcomes of the analysis gave us a framework to consider whether new consumer protections, beyond the ACL and existing consumer protections, should be introduced to address specific risk themes.

Table A1.10 is the culmination of many stakeholder forums, individual meetings, analysis by the AER and input from industry experts:

- As noted above, we were able to recognise a set of risk themes that were likely to occur regardless of the type of product or service a consumer engages with. These are listed out in column A of Table A1.10.
- We then analysed the probability of risks arising and their materiality on a consumer if they do eventuate. This is described in column B of the table.
- We also analysed how the existing protection measures (e.g., ACL, NECF, New Energy Technology Consumer Code) could potentially mitigate the identified risks and identifying the residual risks not covered by these existing measures. These are listed out in column C of the table.
- Lastly, Column D shows our summary of key findings from analysing each risk theme.

Table A1.10 Probability and materiality analysis of risks

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
<p>Information provision</p> <p>There is a risk of consumers not receiving the information they need to support them to make decisions about energy products and services that will best suit their needs and wants. This includes information about the value a product/service can offer to a consumer, total costs, its fit/appropriateness to the consumer’s circumstances and how it interacts with other products/services the consumer may already have at their premise.</p> <p>To an extent, many of the identified risks are linked to this risk, as the probability of those other risks occurring is dependent on the occurrence of this risk.</p>	<p>Probability</p> <p>High probability of occurrence in every product/service and stage of the customer journey as new technologies, products and business models become available and add to the complexity of energy contracts and, overall, the energy market.</p> <p>Materiality</p> <p>The materiality of harm should this risk occur is dependent on several factors:</p> <ul style="list-style-type: none"> • type of consumer (e.g., vulnerable consumer result in far greater materiality) • type of product (e.g., the more crucial/essential/complex the product is, the more it is likely to result in a more material impact) • the information provided/not provided (e.g., the material impact will differ depending on the information that was failed to be communicated to the consumer). <p>The potential impacts on the consumer include:</p>	<p>The ACL provides protections against misleading, deceptive and unconscionable conduct. This only ensures information provided to the consumer is not misleading (or by omission is not misleading), or in doing so, they have not acted unconscionably. Hence, it does not oblige the provider to proactively provide key information about a service to the consumer. Additionally, the threshold to prove the breaches of the above provisions are quite high.</p> <p>The NECF does provide some form of risk mitigation through the Retail Pricing Information Guideline. However, the guideline only applies in relation to pricing and to providers who engage in the ‘sale of energy’. We consider the risk is not just a question about price, as consumers may not be provided the holistic information they require to make a decision about whether a service will meet their wants and needs.</p>	<p>Consumers should receive key information about an energy service or product before they sign onto a contract. This will support them to make well-informed decisions that best suit their needs.</p> <p>Consumer groups are keen for us to consider the needs of passive consumers (those who do not wish to engage with new consumer energy resources) to ensure they are able to remain disengaged from the consumer energy resources market without being left behind/unfairly burdened with costs.</p>

Review of consumer protections for future energy services

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
	<ul style="list-style-type: none"> • hardship/debt implications, particularly if they end up paying more for energy services or are required to buy a bundled consumer energy resources product that does not suit their needs because they did not have the right information to make an informed decision • locked into products/services not suitable to their lifestyle/that they are unable to afford and unable to switch to a cheaper/more suitable option. This could lead to an increase in overall energy costs or leave the consumer without access to an energy supply or consumer energy resources assets when needed. Consumer may be more likely to need to spend time entering into disputes with their service provider and accessing an external complaints resolution body • the consumer may lose confidence/trust in the energy market and may not be willing to consider other consumer energy resources products/services that could benefit their circumstances. 		

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
<p>Contracts</p> <p>There is a risk of consumers entering into contracts that are not fit for purpose for their circumstances or specify financial commitments and/or lock-in terms that the consumer does not fully understand.</p>	<p>Probability</p> <p>High probability of occurrence across any services/products with contracts involved. Additionally, as bundled consumer energy resources become more common, it creates complex contractual agreements and relationships which could pose risks to consumers.</p> <p>Occurrence of this risk dependent on:</p> <ul style="list-style-type: none"> • whether the terms of the contracts are properly explained to and understood by the consumer • whether the consumer has any influence over the terms and conditions of the contract. <p>Materiality</p> <p>The potential impacts on the consumer include:</p> <ul style="list-style-type: none"> • the extent of harm is likely dependent on the availability of a cooling off period and the consumer’s knowledge of this period if issues arise before it ends 	<p>The ACL provides protections for unfair contract terms and protections against unconscionable, misleading and deceptive conduct. However, the threshold to prove the breaches of the above provisions is quite high. Additionally, it does not address the risks set out in ‘information provision’ (see above), which is linked to the risk of contracts.</p>	<p>Contracts should be fit for purpose (appropriate to the circumstances of the consumer) and properly explained to a consumer before they sign. Consumers should expect to benefit from the contracts they enter into.</p>

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
	<ul style="list-style-type: none"> • consumers are locked into paying for something they do not need/cannot afford • potential hardship/debt implications, particularly if consumers end up paying more for energy services or are encouraged to buy a bundled consumer energy resources that does not suit their needs • may result in interoperability issues if the consumer enters into multiple contracts with multiple providers and the products/services are not compatible with each other. 		
<p>Dispute resolution</p> <p>There is a risk that consumers may be unable to resolve disputes because of barriers to access to dispute resolution, including cost and complexity barriers. This is particularly the case if ombudsman schemes are unable to resolve consumer energy resources related complaints. There is also a risk that matters are not resolved fairly and in a timely manner.</p>	<p>Probability</p> <p>High probability of occurrence across all services/products/stages of the consumer journey as new and emerging technologies, products and business models enter the market. Further, these many new products and services are not currently within the jurisdiction of the ombudsman schemes. Additionally, the increased number of new players could create a lack of certainty for providers and consumers about how disputes should be solved.</p>	<p>There are jurisdictional-based bodies (e.g., Fair Trading) that can assist consumers in negotiating outcomes, but they cannot direct service providers to remedy their breach. There are a lot of instances where Fair Trading cannot assist and will leave it up to the consumer to take their own action.</p> <p>Under the Retail Law, authorised retailers are required to be part of an ombudsman scheme. However, this will not apply where new and emerging</p>	<p>Consumers should be able to access independent dispute resolution that covers all energy services that affect the supply of energy to their household or business premises. Consumers' disputes should be resolved:</p> <ul style="list-style-type: none"> • in a timely manner • fairly • at minimal cost

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
	<p>The probability of this risk occurring is also dependent on:</p> <ul style="list-style-type: none"> • the complexity of the product/service and number of parties involved • the quality of information that is provided to the consumer • whether a product/service is bundled • the scope of the ombudsman (e.g., in Queensland, large businesses are outside the ombudsman’s scope and embedded networks are classified as large businesses). <p>Materiality</p> <p>The potential impacts on the consumer include:</p> <ul style="list-style-type: none"> • financial implications (e.g., stuck paying for product/service because of lock-in terms) • some methods of dispute resolution may cost the consumer time and money • consumers may not be able to address the issue for a prolonged period due to lack of effective dispute resolution (this could particularly be an issue if the 	<p>energy services fall outside the sale of energy (which is likely to be the case).</p> <p>The ACL does not provide any dispute resolution mechanisms.</p>	<ul style="list-style-type: none"> • without needing to go to multiple parties or dispute resolution bodies.

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
	<p>energy service impacts a consumer’s essential supply of energy)</p> <ul style="list-style-type: none"> increased uncertainty for the consumer if multiple parties are involved in the issue and they try to lay the blame on other parties. 		
<p>Data</p> <p>There is a risk that consumer data is not securely held, inappropriately shared or used for unintended purposes by new energy service providers.</p>	<p>Probability</p> <p>High probability of occurrence for any product/service as new and emerging products become more digitalised and businesses are electronically storing consumer data.</p> <p>Higher probability of occurrence in bundled services as consumers might inadvertently give permission to share data with certain entities.</p> <p>Probability of occurrence is also dependent on the effectiveness of the Consumer Data Right reform.</p> <p>Materiality</p> <p>There is a risk that data is misused:</p> <ul style="list-style-type: none"> for unsolicited sales (e.g., high peak users are seen to be attractive candidates for retailers to sell their products to) 	<p>Privacy safeguards are built into the Consumer Data Right to protect consumers’ data. However, this is an opt-in service only.</p> <p>The ACL and Retail Law do not provide protections for this risk.</p> <p>There may be relevant data privacy legislation requirements (such as the Privacy Act).</p>	<p>There are sufficient data protections encompassing consumers within the energy market.</p>

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
	<ul style="list-style-type: none"> • by hackers to manipulate your product/service (as they become more digitalised) • by scammers who want financial gain. <p>There are implications for the wider availability of data. As data is linked up across different products/services/sectors, it could prejudice outcomes (e.g., a financial institution could decline a consumer's loan application as they have access to information that affects the consumer's credit).</p> <p>Consumers may not trust that their data is being protected or used correctly which could mean they will be reluctant to take up new energy products/services.</p>		
<p>Performance of services</p> <p>There is a risk of products/services not working in the intended way (e.g., due to technical issues or in the way that it operates).</p> <p>Alternatively, a product/service may not perform to a consumer's expectations and this may impact their overall</p>	<p>Probability</p> <p>High probability of occurrence across all products/services as new and emerging technologies, products and business models enter the market. The potentially complex interactions between new energy products/services and the traditional grid supply may increase the probability of occurrence.</p> <p>Probability is dependent on:</p>	<p>The ACL contains provisions for the liability of manufacturers for goods with safety defects and warranties against defects. However, the types of issues a consumer may experience may not be considered a safety defect and this only relates to products as opposed to services. Issues of reliability could go beyond the asset because there is potential for the supply of energy to be impacted if the asset or an associated</p>	<p>Consumers' energy services should perform as intended regardless of the type of products and services they have or the source of their energy supply (whether it is behind the meter, from the grid or both).</p>

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
<p>supply of energy (whether from the grid and/or from their consumer energy resources).</p>	<ul style="list-style-type: none"> • complexity of product/service type • whether an internet connection is required to connect the product or service (particularly for remote consumers) • the consumer’s knowledge of the product/service and how much information was provided to them (e.g., the product or service works contrary to the consumer’s expectations) • capacity of consumer to engage with the consumer energy resources. <p>Materiality</p> <p>The material impact of the harm is likely dependent on factors such as where the consumer lives (urban or regional), the other products/services operating at a consumer’s premise, and how products and services are bundled. If the consumer has bundled services, the failure of one consumer energy resources part of the bundled service system could impact the other components or interfere with a consumer’s access to energy. For consumers with health issues or who are experiencing vulnerability, there could be</p>	<p>service does not work the way it should.</p>	

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
	potentially significant impacts if reliability issues occur.		
<p>Bundling</p> <p>There is a risk that bundled products/services do not work compatibly with other behind-the-meter energy products/services that the consumer may have at their household. This may impact or interrupt the consumers’ energy supply from the grid (or behind the grid or both).</p> <p>Consumers may also be convinced to sign up to a bundle of products when they only needed one component of the bundle. Further, there could be negative implications if one bundle component is not working.</p>	<p>Probability</p> <p>Probability of occurrence is increasingly high as more providers are offering bundled offers with a range of different consumer energy resources.</p> <p>The probability of this risk occurring is dependent on whether the bundled products/services can be separated and work independently. It is also dependent on whether the information, provided to the consumer is informative and clear (see the ‘information provision’ risk theme).</p> <p>Materiality</p> <p>If the bundled services are connected, it could create a domino effect if one service fails/is interrupted.</p> <p>Consumers could potentially lose access to their energy supply, which could have significant impacts.</p>	<p>The ACL does not provide protections for this risk.</p>	<p>Consumers should still have access to their energy supply if one component of their bundled system fails/gets interrupted.</p>
<p>Access</p> <p>There is a risk of consumers not being able to access some</p>	<p>Probability</p> <p>Likely to be high as consumers will need sufficient financial resources to buy</p>	<p>The ACL does not provide protections for this risk.</p>	<p>We want to minimise the barriers that prevent consumers from accessing new consumer energy resources-based services and</p>

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
<p>energy products or services within the market due to their financial circumstances and/or their place of residence.</p>	<p>consumer energy resources required for new services.</p> <p>Probability of occurrence is dependent on:</p> <ul style="list-style-type: none"> • where the consumer lives • household income and financial capacity to engage with new and emerging products and services • whether a consumer owns or rents their place of residence • government subsidies/actions. <p>Materiality</p> <p>The gap between consumers who can or cannot access new energy products/services may become wider in the future. Materiality is also dependent on factors set out in the probability above.</p>		<p>products. However, these issues cannot be addressed through consumer protection frameworks but need to be mitigated through other measures such as vulnerability and energy efficiency initiatives that help to reduce consumer debt and promote access consumer energy resources. Consumers who cannot access or choose not to access consumer energy resources should not be penalised.</p>
<p>Hardship or change in circumstance considerations</p> <p>There is a risk that consumers are unable to pay energy bills due to financial difficulty (temporary or long term), which may result in an accumulation of debt and de-energisation.</p>	<p>Probability</p> <p>Probability of occurrence is high for all products/services due to increased energy costs and a higher cost of living.</p> <p>Materiality</p> <p>Extent of harm is dependent on:</p> <ul style="list-style-type: none"> • type of service/product and its cost 	<p>There are NECF protections for consumers experiencing hardship, which greatly reduces the risk level. However, these currently only apply to providers who engage in the ‘sale of energy’.</p> <p>The ACL does not provide protections for this risk.</p>	<p>Consumers experiencing hardship should still have access to their supply of energy.</p> <p>Energy providers should work together to support shared consumers through hardship.</p>

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
	<ul style="list-style-type: none"> • whether it is a bundled service (are all products in the bundle cut-off if the consumer cannot pay) • consumer circumstances and the probability of them experiencing vulnerability (e.g., socio-economic characteristics, ability to understand the product/service). <p>Access to energy is an essential service and any form of disconnection will have a significant effect. Consumer energy resources may help a consumer have lower bills. If these are disconnected due to hardship, their energy supply bill may go up and cause further detriment/hardship.</p>		<p>We will have to consider whether all new products/services require hardship protections.</p>
<p>Appropriate technical standards</p> <p>There is a risk if a new product or service is not compatible with other products/services at a consumer’s premise or if it has the ability to interrupt/impact the consumer’s supply of energy.</p> <p>There is also a risk that inconsistent setting and application of standards may</p>	<p>Probability</p> <p>The probability of occurrence will depend on what technical standards and governance frameworks are in place. The probability of occurrence could initially be higher as new technologies become available. Additionally, more consumers are taking on multiple energy products/services within their residence and this could see increasing issues if compatible standards are not in place.</p>	<p>The AEMC has recently completed a review into consumer energy resources technical standards with a range of short- and long-term recommendations for improving compliance and governance arrangements.</p> <p>The ACL does not provide protections for these risks.</p>	<p>Products should have appropriate technical standards to ensure they are safe and interoperable. They should not negatively impact/interfere with the consumers’ continued access to the essential supply of energy or the ability of consumers to switch energy service providers.</p> <p>This risk is largely outside the scope of this review and is</p>

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
<p>create barriers to consumer switching.</p> <p>Also, there is a risk of physical safety issues if adequate technical standards are not in place.</p>	<p>Materiality</p> <p>Materiality could be significant where physical safety issues are concerned. If safety/technical issues are widespread, consumers could lose confidence/trust in new products/services.</p>		<p>addressed through the AEMC's recommendations.</p>
<p>Energy provider failure</p> <p>There is a risk of an energy provider going out of business. This could cause energy supply issues and potentially financial implications for consumers if they have invested in consumer energy resources that can no longer be operated by their provider of choice.</p>	<p>Probability</p> <p>The probability of occurrence is likely to be high as many new, inexperienced suppliers enter the market, increasing the possibility of supplier failure.</p> <p>Materiality</p> <p>If services are co-dependent, then the failure of one supplier may have a domino effect on the whole energy system at a consumer's premises (e.g., due to bundling).</p> <p>If a provider fails, their consumers might be forced to switch to a more expensive provider.</p>	<p>Current NECF protections, such as the Retailer of Last Resort (RoLR) scheme, would largely mitigate the risk.</p> <p>The NECF provides protections for consumers during a supplier failure. However, only consumers of authorised retailers within the NECF are afforded those protections. There may be risks to consumers of providers who are not part of the RoLR scheme (providers of new consumer energy resources).</p> <p>The ACL does not provide protections for supplier failure. The Corporations Act provides limited recourse for unsecured creditors of failed businesses.</p>	<p>Consumers should continue to receive a supply of energy in the event of a failure of one or more of their energy providers.</p> <p>In the future, consumers may expect to continue to receive the same service (either energy supply or new consumer energy resources-related service) at the same price provided by another supplier.</p> <p>This is a complex area that needs specific consideration and regulation.</p> <p>We need to consider whether we maintain the RoLR scheme in its current form or whether we expand/duplicate/create a similar framework for new energy service providers.</p>

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
<p>Control of assets</p> <p>There is a risk of consumer energy resources being remotely controlled by a provider in a way that causes consumer detriment.</p>	<p>Probability</p> <p>The probability of occurrence is medium to high as new and emerging products and services become digitalised, making it easier for providers to take control remotely.</p> <p>This probability is dependent on:</p> <ul style="list-style-type: none"> • product/service type • consumer type • whether consumers have been given the correct information to understand what their assets do and how they work together. <p>Materiality</p> <p>The materiality of harm is dependent on:</p> <ul style="list-style-type: none"> • how interdependent the products are • nature of service and type of consumer (consumers experiencing vulnerability are more likely to face issues) • physical and mental health • housing (urban versus rural settings). <p>Significant issues that could arise include:</p>	<p>The ACL provides protections for unconscionable conduct, which could provide protection in some instances. However, this is often difficult to prove and does not provide specific protections against the control of assets. Hence, consumers are still likely to be exposed to the risk.</p>	<p>Consumers should get access to their energy supply (whether it is behind the grid, from the grid or both) when needed. Consumers' expectations should be managed, and providers should clearly explain the implications of control.</p> <p>Service providers should market and distribute services having regard to the characteristics of the consumers that they are selling them to. Consumers should be given a choice to either provide or withdraw consent prior to the control of their assets. They should have the ability to override control of their assets whenever needed.</p>

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
	<ul style="list-style-type: none"> • A service could be controlled in a way to benefit the energy provider but not the consumer (for example, an aggregator fully discharges a consumer’s battery or EV). This could lead to consumers not having access to grid supply (or having access only at a high price) or being unable to use their consumer energy resources at times. • A consumer cannot use the product/service freely or must pay every time they try to override control. <ul style="list-style-type: none"> ▪ In Virtual Power Plant contracts, the remote control of a consumer’s appliances is linked directly to the energy savings or retail rewards they have been promised by the provider. • The energy provider may continue to have control long after the consumer has terminated the contract. 		
<p>Conduct</p> <p>There is a risk consumers could be negatively affected by a provider’s poor conduct. Further, the provider’s poor conduct may</p>	<p>Probability</p> <p>The probability of occurrence is high as many new, inexperienced providers are entering the market. Occurrence is dependent on the retailer/supplier’s practices and organisational culture.</p>	<p>The ACL provides protections for misleading or deceptive conduct relating to cost of service, false or misleading representation, unconscionable conduct and unfair practices.</p>	<p>Energy sellers and service providers must act in the best interest of consumers and ensure their conduct reflects these principles.</p>

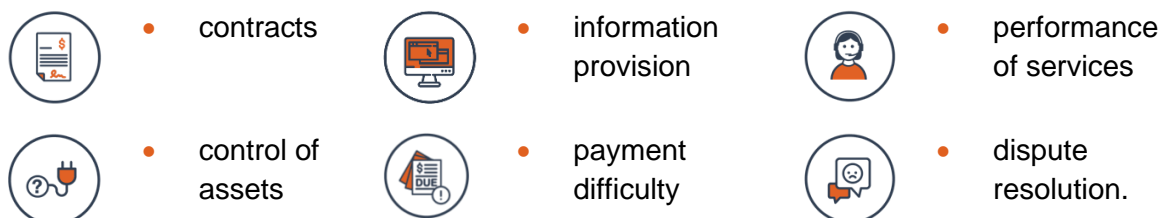
Review of consumer protections for future energy services

Column A – Risk theme	Column B – Probability and materiality of risk if adequate protections are not in place	Column C – Potential mitigants provided under current consumer protection laws	Column D – Summary of key findings
influence consumers' trust in the energy market.	<p>Materiality</p> <p>The occurrence of the risk could result in the following material impacts:</p> <ul style="list-style-type: none"> • involuntarily stuck in lock-in contracts • signing up to products/services that do not suit the needs/wants of a consumer • involuntarily entering into hardship/debt situations. 	<p>Given the potential significance of this risk, particularly in regard to cutting the supply of energy, the AER considers these protections insufficient.</p>	

The analysis also enabled us to identify certain risk themes where the overall risk was not sufficient to warrant the introduction of new consumer protections or not appropriate risks for a consumer protection framework to address. These were:

- **Data:** other frameworks, such as the Consumer Data Right and the Privacy Act, offer comprehensive protections for consumers within the energy market.
- **Bundling:** feedback received from stakeholders note that this risk is a subset of other risk themes and adds complexity to other risk themes. As ‘bundling’ interacts with every other risk theme, it should not be considered as a risk on its own.
- **Access:** we want to minimise the barriers that prevent consumers from accessing new consumer energy resources-based services and products. However, these issues cannot be addressed through consumer protection frameworks but need to be mitigated through other measures, such as vulnerability and energy efficiency initiatives that help to reduce consumer debt and promote access to consumer energy resources.
- **Appropriate technical standards:** this risk theme is largely outside the scope of this review and is addressed through the AEMC’s consumer energy resources technical standards review recommendations.
- **Energy provider failure:** this is a complex area that needs specific consideration and regulation. We need to consider whether we maintain the Retailer of Last Resort scheme in its current form or whether we expand or create a similar framework for new energy service providers.

The remaining risks are highlighted in Chapter 3 of the main body of this report – namely:



A1.6 Case studies

To illustrate the outcomes of our risk analysis and the potential risks consumers may encounter when engaging with new energy products and services within the current consumer protections framework, we have developed a set of case studies. These provide insights into customer experiences throughout the 5 stages of the customer journey – pre-engagement, point of sale, use of service, switching providers and end of service. By presenting these case studies, we aim to provide a clearer understanding of why we are advocating to expand energy-specific protections to certain new energy services. Our primary focus is to present case study examples supporting our view to expand the NECF to capture new energy services. However, we recognise the inherent link between energy services and products in the customer journey and have also identified the risks that may arise from both services and products.

A1.6.1 Electric vehicle charging case study

The Chan household lives in a developing suburb 30 minutes away from Brisbane, Queensland, and has 4 members. John Chan (38) works part-time for the local council and Anne Chan (36) works full-time as a nurse. They have 2 children – Harry (9) and Laura (7). They own their own home and recently purchased an electric vehicle (EV). John mainly uses the EV to drop off and pick up Harry and Laura from school. John is also in charge of driving the kids to after-school activities. When Anne is scheduled for day shifts, she can take public transport to work. However, when she is scheduled for night and evening shifts, she prefers to drive to work.

Pre-engagement stage

At a recent family gathering, John's brother-in-law discussed fast EV charging. John and Anne decided to do their own research to get a better understanding of EV fast charging services. The EV charging providers did not highlight key information, such as the value, costs, fit or appropriateness of EV fast chargers or the service within their brochure and website. English is also not John and Anne's first language, so it took them a while to understand and process the information. Additionally, they did not have the time to go through the brochures in detail and relied heavily on the information provided on websites. The complexity of the information made it challenging for John and Anne to fully understand the EV charging arrangement, including the equipment to be installed at their premises and the robust wiring that may be required to handle the extra electrons and heat. In the end, John and Anne were unable to properly understand the key information to assist with their understanding of the EV charging arrangement. This created a ripple effect for John and Anne as they continued on their customer journey.

Point of sale

After doing their own research and asking John's brother-in-law for further advice, John and Anne decided that an EV fast charger would suit their household needs. They shopped around for potential EV charging providers and came across E-VEHI Pty Ltd (E-VEHI), a provider that offered solar EV charging. Through E-VEHI's website and brochure, John and Anne were provided the following information:

- The service provided by E-VEHI would include installation of an EV fast charger, solar system (to be connected to the home and EV fast charger) and a monitoring system.
- E-VEHI was doing a promotional offer where customers get a discount for the system bundle if they also sign up to E-VEHI's aggregation service. The aggregation service enabled E-VEHI to sell customer battery-stored energy to the grid (usually after the EV charger is fully charged) and for E-VEHI to control when this occurs.
- E-VEHI also offered their customers to pay off the solar panel in instalments if they agreed to the above arrangement.
- The total costs of the bundle included the cost of the energy products, installation and connection fees.
- Solar EV charging decreases the cost of charging by using solar energy.

John and Anne picked E-VEHI based on the above information. John and Anne also agreed to the terms attached to E-VEHI's promotional offer because E-VEHI only highlighted the

option to receive a discount and did not fully explain the pros and cons (such as lock-in implications or the risk of enabling E-VEHI to control their EV charger battery) or whether the arrangement would suit their household needs. They relied on headline messages in the marketing material and did not understand whether the service would meet their needs. The transparency of costs and potential value of the solar EV charging arrangement solar panels were also not clear to them. They were not aware of the time it would take for them to recoup their costs from the new arrangement. They were also unaware the aggregation service may limit the charge in their EV. Despite their limited understanding and with little time to devote to considering the offer, they signed the contract.

Use of service

Both the solar panels and EV charger have been installed at the Chan's family home. The EV charger communicates with the solar system so it dynamically adjusts the charge rate based on the available generation of the solar system. Unfortunately, Queensland experiences an annual wet season during November to April. This affects the amount of energy generated by the Chan household solar panels and consequently means it takes Anne and John longer to charge their EV during the wet season. They are constantly worried about the state of charge in their EV.

One morning, John was surprised to find the EV was only 25% charged. He contacted E-VEHI and they sent someone to his house to test the EV charger. Upon checking the charger, the tester told John it was working as intended and suggested the bad weather may have affected the EV charging time because it was being charged solely by the solar system. They also told John that during bad weather conditions he should just plug his EV charger directly into a wall socket, using the electricity that is supplied to his premises. John was not happy because this was not explained to him prior to installation. John argued that E-VEHI should have explained that the weather may heavily impact the charge rate to the EV.

Additionally, John was uncomfortable with the amount of energy that was being drawn out of their EV battery. John contacted E-VEHI and asked them if they could reduce the amount of energy that they drew from the EV battery. They told John that the contract he had signed allowed them access to his battery and they were able to discharge it down to 20%.

Switching plans

Anne was asked by her manager to work at another hospital. The other hospital is not accessible by public transport. Further, the Chan family's reliance on their EV increased as the kids took on extra-curricular activities over the weekend. To play it safe, John and Anne decided to switch to a different arrangement (also provided by E-VEHI). This new plan would enable them to charge their EV from both the solar and grid. John called E-VEHI to enquire about the switch. E-VEHI allowed the switch, but as per the contract terms, John would have to pay \$100 for the switch (this included administration fees). While this charge was specified in the original contract, John was not happy because he felt he should have been made aware of this option originally, and thus could have avoided the charge. John reluctantly paid the fee as they could not afford to rely on their solar panels to charge their EV.

When John received his first bill after the switch, he noticed an increase in his electricity bill. This is because he was taking energy from the grid to charge his EV (in addition to solar energy). John contacted E-VEHI and they told him that it was normal to see an increase in his electricity bills after the switch.

John was unhappy with E-VEHI's customer service. John thought E-VEHI should have highlighted certain information (such as the benefits and implications of using a solar EV charging system and whether it would suit his household needs) in the earlier stages of contact. John decided to seek redress through the state energy ombudsman. However, the state's ombudsman told him that this sort of dispute was out of their scope as they only dealt with electricity supply arrangements and referred him to his state's Office of Fair Trading. However, when John saw the time and effort it would take him to get his matter resolved through the Office of Fair Trading, he decided to drop his dispute.

The below table shows the positive obligations that would have resulted in a better outcome for the consumers.

Risk	Current protections
<p>Information provision</p> <p>Pre-engagement stage: John and Anne could have benefited from information about the value, costs, fit or appropriateness of using an EV fast charger to make a well-informed decision.</p> <p>Point of sale stage: John and Anne were informed about the costs of the EV battery and solar panels installation. However, they would have benefited from information on return on their investment. Additionally, they did not fully understand the implications of the arrangement (such as E-VEHI drawing from their EV charger battery no matter how much charge there might be in their EV charger). In addition to their time and language constraints, they were also not given enough information to understand the benefits and implications (such as the charging of their EV was fully dependent on weather conditions) of solar EV charging.</p> <p>Use of service stage: John and Anne could have benefited from information on how their EV would only be charged from the solar panels when the sun was shining, and that E-VEHI could draw from the battery whenever they wanted. Given John and Anne's frequent use of their EV and reliance on it as their main mode of transport, if they had understood the effect of the arrangement on limiting the charge in their EV, they likely would not have chosen it.</p> <p>Switching plans stage: John and Anne were not familiar with the solar EV charging arrangement and other available options, leading them to select an unsuitable arrangement. They had to pay extra to switch their energy arrangement to something more suitable. If John and Anne had understood the implications of a solar EV</p>	<p>We consider that positive obligations requiring an energy business to take steps, such as specifying key information that the consumer needs to help them make informed decisions about energy services and asking further questions before providing options for the best product for that customer, could have enabled a better outcome for John and Anne.</p> <p>For example, E-VEHI would proactively offer key information, advice and assistance to help John and Anne make an informed decision about the product (EV fast charger) and service (aggregation service) and ensure it meets their needs/delivers them good outcomes. This may include highlighting and providing key information such as the value, costs, fit or appropriateness of the EV fast charging service.</p>

Risk	Current protections
<p>charging arrangement, they likely would have chosen a different option.</p>	
<p>Bundling</p> <p>Point of sale stage: John and Anne chose E-VEHI because of its bundling package but they did not understand the implications of bundling their solar panels with their EV charging, such as lock-in implications (as they were paying off their solar panels in instalments) and that the cost of bundling may outweigh the savings on their energy bill. They also did not know whether a bundling offer would be compatible with their current home energy usage as they currently rely heavily on their EV.</p>	<p>We consider that positive obligations requiring an energy business to take steps, such as ensuring the consumer understands the bundling arrangement or ensuring bundling arrangements will be compatible with the consumer’s current home energy system, could have enabled a better outcome for John and Anne.</p> <p>For example, E-VEHI would proactively ask questions to help determine whether the product and service is appropriate for John and Anne’s needs.</p>
<p>Contracts</p> <p>Point of sale stage: John and Anne could have benefited from having the important and complex contract terms explained to them. As a result, John and Anne made assumptions about what they were signing up for and were not fully aware of the implications (such as risks associated with being locked into paying for the solar panels in instalments and enabling E-VEHI to draw from their EV charger). While John and Anne provided consent, they did not appreciate the key impacts/costs/benefits to them.</p> <p>Use of service stage: Providing John and Anne with information such as the exclusive use of solar energy for EV charging and the amount of withdrawal permitted by E-VEHI from their EV charger battery could have been beneficial for them.</p> <p>Switching plans stage: Providing John and Anne with an early explanation about the fees associated with changing their energy arrangement could have been beneficial for them.</p>	<p>We consider that positive obligations requiring an energy business to take steps, such as explaining important contract terms to the consumer and ensuring they understand what they are signing up for, could have supported a better outcome for John and Anne.</p> <p>For example, E-VEHI would explain the pros and cons, such as lock-in implications and the risk of enabling E-VEHI to control John and Anne’s EV charger battery. In explaining the contract terms, E-VEHI would also highlight the extra fees John and Anne may incur if they decide to switch plans or providers.</p>
<p>Control of asset and performance of services</p> <p>Use of service stage: The charge of the EV battery was controlled by E-VEHI and this resulted in a lot of energy being taken from John and Anne’s EV battery. This could potentially prevent them from completing a trip in the car. Additionally, the charge rate was determined by weather conditions, causing their EV charger to not always charge their EV.</p>	<p>We consider that positive obligations requiring an energy business to take steps, such as ensuring energy services perform as intended and ensuring third-party control of the customer’s asset are appropriate and do not interfere with the customer’s current home energy system, could have enabled a better outcome for John and Anne.</p>

Risk	Current protections
	<p>For example, E-VEHI would actively seek to understand John and Anne’s expectations and ensure the service can meet them. John and Anne expected to benefit from the savings that come with solar EV charging and expected their EV to be fully charged in the morning. As a result, E-VEHI would explain the benefits that come with solar EV charging, but also explain that the charge of their EV may be reliant on weather conditions.</p> <p>Additionally, when John told E-VEHI that he was uncomfortable with the amount of energy being drawn out of his EV battery, E-VEHI could work with John to find a solution. This might include explaining to John he can set a reserve on his EV battery’s internal settings. This reserve means that the battery cannot be discharged below the set amount and cannot be overridden by E-VEHI.</p>
<p>Dispute resolution</p> <p>Switching plans stage: John tried to approach the state energy ombudsman. However, he was told that this type of dispute was out of their scope and asked him to consider Fair Trading. John weighed the time and benefit of pursuing his dispute via the state’s Fair Trading and decided to drop the dispute. As a result, his dispute remains unresolved and may cause him to lose trust in the energy sector.</p>	<p>We consider that the positive obligation of requiring an energy business to become a member of a jurisdictional ombudsman scheme could have enabled a better outcome for John and Anne.</p> <p>For example, E-VEHI would refer John to the state ombudsman scheme, which could potentially lead to a timely resolution of John’s complaint.</p>

A1.6.2 Aggregation and/or energy management services case study

Alan runs a small, energy-intensive manufacturing business in the suburbs. The business is operated from premises that are owned by Alan. As energy costs are a significant cost input to the business, Alan takes responsibility for all matters relating to energy within the business.

Pre-engagement

Alan felt that he was not getting the ‘best’ price from his energy provider and decided to shop online for other options. He came across a couple of providers that provided aggregation services for residential and business customers within Alan’s local community. Alan did some general research on aggregation services and found that aggregation providers recruited residential and small business customers to buy and sell energy at a cheaper price. Alan did not understand the technicalities of the aggregation service (such as when the aggregator would increase or moderate the electricity consumption according to total electricity demand), but he liked the idea of entering a fixed-rate contract so that his electricity prices would remain the same during the whole period of the contract. The providers did not filter

key information for Alan, such as the value, costs and fit/appropriateness of the aggregation service. This key information would allow Alan to make a well-informed decision about the suitability of the service. As Alan was busy with his manufacturing business, he did not have time to go through all the information to fully understand the aggregation arrangement. This created a ripple effect for Alan as he continued down the customer journey.

Point of sale

Alan decided to contract with AGchoice Pty Ltd (AGchoice) – an aggregator provider. This was because they offered one of the lowest fixed-rate prices and free battery installation. Through their website and brochures, AGchoice provided the below information to Alan:

- Alan would have to purchase the battery to join their aggregation service, but AGchoice would pay for the installation as part of their promotional offer.
- The battery could provide back-up of up to 4 hours during an outage.
- As the battery was quite expensive to purchase outright, AGchoice offered the option to pay the battery in instalments within a 5-year period and with no interest. However, AGchoice would gain control of the battery and may export energy to sell to other consumers or use as part of AGchoice's Virtual Power Plant (VPP) arrangement.
- AGchoice promised that any exported amount would be recharged within one day and it would not export more than half of the energy in Alan's battery.

Alan relied on the information given to him and signed the contract without fully understanding the implications of the aggregation arrangement (such as how much and how often AGchoice would draw from Alan's battery and the risks of a lock-in contract). The transparency of costs (such as whether the aggregation arrangement would reduce his energy bill) and potential value of installing the battery (such as the payback period or whether it would be suitable for his business activities) were also not provided to Alan. Alan also knowingly signed himself into a locked-in contract but was not told of the implications (such as exit fees or financial implications) of this arrangement.

Use of service

The battery was installed at Alan's place of business and Alan was happy to see his electricity consumption and the consumption element of his bill reduced. However, Alan realised that he was paying more on his current energy arrangement when compared with his previous energy arrangement. This was due to the additional repayment of the battery. On Tuesday, Alan's local grid experienced an outage but there was not enough electricity in Alan's battery to provide for the whole outage period. During the call with AGchoice, Alan was told that on Monday (the day before), they drew some electricity from his battery to provide for other consumers' premises. Although Alan knew that AGchoice had permission to draw from his battery, he argued that he should have had priority over others because he paid for the battery. Alan requested for a discount on his next bill for the inconvenience.

Alan did not get a satisfactory response from AGchoice so he decided to seek redress through the state energy ombudsman. However, the ombudsman told him that this sort of dispute was out of their scope as they only deal with electricity supply arrangements. Alan was referred his state's Office of Fair Trading. However, when Alan was notified of the time and effort it would take him to get his matter resolved through the Office of Fair Trading, he decided to drop his dispute.

Switching providers

Although Alan was paying less for his energy usage, he felt that AGchoice was putting their own interests above his. As Alan was running a business, he needed to have a reliable source of energy and after weighing the costs and benefits, he decided to opt out of the aggregation service. However, Alan had signed a lock-in contract and had 2 more years before he could opt out. Alan called AGchoice to ask whether he could pay off the battery in full so that he could take full control of the battery. AGchoice told Alan that there would be an 'exit fee'. Alan decided to prioritise his business and paid the exit fee.

End of service

Alan did not renew his contract with AGchoice when it ended and did not continue the aggregation arrangement. Hence, Alan stopped receiving maintenance and support for his battery. Alan experienced another outage and the battery did not provide back-up power. Alan researched online for the cause of failure, but as the model of the battery was not popular in Australia, he could not find any useful information. Alan tried calling an electrician to check the battery, but they were also unfamiliar with the model. Alan contacted AGchoice, but they were only allowed to service their customers and could not take other maintenance and support jobs for non-customers. This was not mentioned to Alan prior to his exit, but AGchoice claimed that this was in the terms and conditions of the contract.

The below table shows the positive obligations that would have resulted in a better outcome for the consumer.

Risk	Current protections
<p>Information provision</p> <p>Pre-engagement stage: Alan could have benefited from information about the value, costs and fit/appropriateness of the service to help Alan make a more informed decision. Consequently, Alan was not able to get a general understanding of the aggregation arrangement, which will cause issues later down the journey.</p> <p>Point of sale stage: Alan would have benefited from information about the costs and potential value of signing up to the aggregation service and purchasing a battery and how long it might take for Alan to get a return on his money.</p> <p>Use of service stage: As Alan was not provided with information on the transparency of the costs and the potential value of the aggregation arrangement, he was surprised to see that he was paying more than before.</p>	<p>We consider that positive obligations requiring an energy business to take steps, such as specifying key information that the consumer needs to help them make informed decisions about energy services and asking further questions before providing options for the best product for that customer, could have enabled a better outcome for Alan.</p> <p>For example, AGchoice would proactively offer key information, advice and assistance to help Alan make an informed decision about the aggregation service and ensure it meets his needs/delivers him good outcomes. This may include highlighting and providing key information such as the value (how long it might take for Alan to get a return on his money), costs, fit or appropriateness of the aggregation service and battery. In addition to the above, AGchoice would ask questions to help determine whether the product and service is appropriate for Alan's manufacturing business.</p>

Risk	Current protections
<p>Contracts</p> <p>Point of sale stage: Although Alan knew that he was signing himself into a lock-in contract, he could have benefited from AGchoice explaining the implications of this arrangement (such as financial implications and the risks of handing control of his battery to AGchoice).</p> <p>Switching providers stage: Alan had signed himself into a lock-in contract and he could not opt out of it prior to the end-date. Alan could have benefited from AGchoice explaining the implications of a lock-in contract prior to signing.</p> <p>End of service stage: Alan could have benefited from AGchoice drawing the key information (such as the cost of terminating the contract) to his attention. Consequently, Alan had to spend extra time and money to find someone who could fix his battery.</p>	<p>We consider that positive obligations requiring an energy business to take steps, such as explaining important contract terms to the consumer and ensuring they understand what they are signing up for, could have supported a better outcome for Alan.</p> <p>For example, AGchoice would explain the pros and cons, such as lock-in implications and the risk of enabling AGchoice to control Alan's battery. In explaining the contract terms, AGchoice would also highlight any exit fees if Alan decides to switch providers or plan.</p>
<p>Control of asset and performance of services</p> <p>Point of sale stage: Alan gave control of his battery to AGchoice by allowing them to export energy at any time and without fully understanding the implications (such as exit fees or financial implications) of this arrangement. This may cause complications in the next stage of the customer journey.</p> <p>Use of service stage: As AGchoice had control of Alan's battery, they were able to draw energy out of the battery anytime. Alan only understood the implications of this arrangement when he did not have enough energy in his battery during an outage.</p> <p>Switching providers stage: Alan felt that AGchoice was putting their own interests above his. He also felt that an aggregation arrangement may not suit his business needs. Alan only discovered the implications of this arrangement after experiencing detrimental effects. If Alan had better understood the arrangement, he likely would have signed up to a different arrangement.</p> <p>End of service stage: As Alan did not renew his contract with AGchoice, he stopped receiving maintenance and support for his battery. When the time came for the battery to be maintained, Alan could not find someone who could fix the</p>	<p>We consider that positive obligations requiring an energy business to take steps, such as ensuring energy services perform as intended and ensuring third-party control of the customer's asset are appropriate and do not interfere with the customer's current home energy system, could have enabled a better outcome for Alan.</p> <p>For example, AGchoice would actively seek to understand Alan's expectations and ensure the service is consistent with them. Alan expected to save money from the new energy system. Given Alan doesn't want the new energy system to negatively affect the operation of his manufacturing business, AGchoice would explain the benefits that come with the new energy system, but also explain that they may draw from Alan's battery at any time. As such, AGchoice would tell Alan that the chosen product and service may be able to provide savings on his energy bill after the battery is fully paid off but may not meet his manufacturing business's needs.</p> <p>Additionally, when Alan raised concerns regarding the amount of energy that AGchoice was drawing out of his battery, AGchoice would work with Alan to find a solution that may include explaining to him he can set a reserve on his EV battery's internal settings. This</p>

Risk	Current protections
battery because it was an uncommon model in Australia.	reserve means that the battery cannot be discharged below the set amount and cannot be overridden by AGchoice.
<p>Dispute resolution</p> <p>Use of service stage: Alan tried to approach the state energy ombudsman. However, he was told that this type of dispute was out of their scope and asked him to consider Fair Trading. Alan weighed the time and benefit of pursuing his dispute via the state's Fair Trading and decided to drop the dispute. As a result, his dispute remains unresolved and may cause him to lose trust in the energy sector.</p>	<p>We consider that the positive obligation of requiring an energy business to become a member of a jurisdictional ombudsman scheme could have enabled a better outcome for Alan.</p> <p>For example, AGchoice would refer Alan to the state ombudsman scheme, which could potentially lead to a timely resolution of Alan's complaint.</p>

A1.6.3 Multiple energy providers case study

The Brown household has 3 members. Mary Brown (35) is a single mum who works full-time in the local supermarket and she has 2 teenage sons, Ethan (15) and Luke (13). Mary is the sole owner of their home. Solar panels were installed by the previous owners before Mary and her ex-husband, Paul, purchased the home. Mary is on a time-of-use tariff (peak rate 7am – 11pm, off peak rate at other times) and receives a feed-in tariff from her electricity retailer, GoodElectric Pty Ltd (GoodElectric), for excess electricity exported to the grid.

Pre-engagement

Ethan was born with eczema and lately, his condition has worsened. Ethan's specialist recommended Mary keep the house at 50% humidity to help with his condition.³⁹ Mary knew this would increase her electricity bill, so she decided to Google 'how to save money and keep the power on if you have eczema'. She saw targeted advertisements about aggregation services and batteries. As she clicked into the links and started reading the information, it became too technical and complex for her to understand. There were too many options to choose from because advertisements for aggregation services and batteries kept popping up and the cost and value of the services and products were not clear to her. She did not find information about the payback period for a battery, and whether the aggregation service and battery would be compatible with her current home energy system.

Point of sale

Mary decided to reach out to an eczema forum because there were too many options to choose from. A couple of people on the forum told Mary they contracted with Battery Globe Pty Ltd (Battery Globe) because it offered the most competitive prices. Mary decided to look them up. They were an aggregator. Battery Globe provided the below information on their website. Mary also contacted them and they sent her some information in brochures. They indicated:

³⁹ A humidifier is not considered a life support equipment under the NECF.

- Battery Globe offered battery installation, maintenance and support at a discounted price on condition that Battery Globe could also act as an aggregation service and draw from Mary's battery when needed as part of their VPP arrangement.
- Battery Globe offered Mary the opportunity to pay off the battery in instalments.

Mary focused on the offered discount and did not conduct further research on the aggregation arrangement and what this might mean for her.

Battery Globe allocated their online sales representative Felix to help Mary with the contract and adoption of the aggregation arrangement. Felix did not clearly set out the costs of the battery installation or discuss the suitability of the aggregation arrangement for Mary's situation (such as any ongoing costs and payback period of the battery). Felix also did not ask about Mary's current home energy system, so he did not know that Mary had solar panels installed at her premises. He also did not ask to see an electricity bill, enquire about her current tariff or consider Mary's usage requirements. Felix recommended a standalone battery, which would be configured to charge only from the grid during off peak periods. Felix went through the contract terms very quickly with Mary and did not check whether Mary understood. As Mary did not want to look foolish, she nodded along to everything.

Use of product

The battery was installed at Mary's home and Mary was signed onto Battery Globe's aggregation system. As the battery was configured to charge only from the grid and not Mary's solar system, Mary paid for all energy drawn into the battery. While this represented a small saving because Mary was effectively able to use 'off peak' energy during 'peak' periods, Mary's energy costs could have been lowered further if the battery had been connected to her solar system, enabling her to recharge it for free when the sun was shining.

In addition, Mary realised that Battery Globe was periodically drawing down the charge in her battery and only leaving around 30% charge for her to use. While her solar system was generating electricity when it was sunny, she found she was often relying on expensive grid-provided power from her retailer GoodElectric during peak periods as peak tariffs extend beyond daylight hours (7am to 11pm).

Mary's boss at the supermarket had also reduced Mary's shifts and made her a casual worker due to the COVID-19 pandemic. As a result, Mary's income decreased and she was unable to pay her energy bills. Battery Globe decided to cut off Mary's ability to use energy from her battery and they instead drew down 100% of Mary's battery periodically to export energy into the grid. All Mary's energy was now purchased from GoodElectric, which resulted in her receiving higher energy bills, which she could not afford. Mary received several bills from her retailer, then reminder notices and a disconnection warning notice. She ignored the bills as she could not afford them, but when she received the disconnection warning notice, she contacted the retailer to let them know she was having difficulty paying her bills. The retailer put Mary onto their hardship program and established a payment arrangement to allow Mary to pay off her energy debt over time.

Mary eventually realised that her non-payment of Battery Globe's energy bill had resulted in her loss of access to battery stored energy, which had caused her to receive higher bills from her retailer. She contacted Battery Globe to explain and ask them to enable her to use the battery again because it would help her reduce her energy costs. Battery Globe would not

agree unless she paid the entire debt. She asked if they could provide her a payment plan as her retailer had done, but they declined and told Mary they are not required to have a hardship policy as they are not an authorised retailer. Mary reluctantly paid the bill, knowing that she really could not afford it and would have to go without other necessities that month.

One day, Mary was telling her friend about the matter. She happened to mention her battery could charge from the grid during off peak periods and that she also had a solar system. Her friend suggested her battery should be connected the solar system as well. Mary was not sure and contacted Felix to ask if her battery was connected to the solar system. Felix noted it was not and that he was not aware she had a solar system. Felix explained it is the responsibility of the customer to inform Battery Globe if they have solar panels and make sure Battery Globe's service are compatible with other energy services provided to a customer's premises.

Mary was unhappy and considered Felix should have checked these things beforehand and sought to optimise her system to help her lower her bills. She asked Felix to arrange to connect her solar system to the battery. Felix advised they would need to charge her to re-wire the battery to the solar system, which would incur a fee of \$500. Mary decided to hold off re-wiring because she could not afford to pay such a large sum, having paid Battery Globe the total arrears bill and having no remaining funds.

Switching providers

Mary's boss at the supermarket reduced Mary's shifts further. She was finding it increasingly difficult to meet energy bill payments and her friend suggested she shop around to look for a better offer. She found a cheaper offer from Optimise+ Pty Ltd (Optimise+), another aggregation service, which would enable her to nominate times they could draw down the charge in the battery, giving her the ability to use the battery when she needed it most. She contacted Optimise+ to switch. Hearing that she already had an aggregation service and battery, Optimise+ advised her she needed to end her other contract first and could not simply switch over.

Mary contacted Felix to advise she wished to switch, so needed to end her contract with Battery Globe. Felix advised she would need to pay an early exit charge of \$80 per month for the remainder of the contract – another 4 years. Battery Globe explained this was to compensate them for lost value as they could not access Mary's battery for the remainder of the contract period.

Mary could not afford to pay out the battery and so remained with Battery Globe. She continued to pay higher bills because she could not switch to another aggregator and she also could not afford the cost to wire her battery to the solar system. While the battery was charged by off peak power, the aggregation service often drew down the battery charge when she needed it most and Mary had to rely on expensive peak power from GoodElectric.

The below table shows the positive obligations that would have resulted in a better outcome for the consumer.

Risk	Current protections
<p>Information provision</p> <p>Pre-engagement stage: Mary could have benefited from Battery Globe explaining to her the implications and benefits of adopting an aggregation service and installing a battery.</p> <p>Point of sale stage: Battery Globe did not seek information about Mary's current home energy system or household needs. Hence, they did not know that Mary had solar panels installed and recommended a standalone battery. To optimise the value of the battery and the aggregation system for Mary, they should have explored options to connect it to Mary's solar system. Additionally, Mary could have benefited from Battery Globe explaining the important terms of the contract to her.</p> <p>Use of service stage: Mary could have benefited if Battery Globe took the time to understand Mary's current home energy system. This led to the unexpected battery-related costs, which Mary could not afford, and led to her losing access to the battery. Battery Globe was not required to offer payment plans or hardship policies and asked Mary to pay the full arrears before they would let her use the battery again. This process also led to her incurring debt with her retailer, which she had to pay off over time. In the end these various costs meant Mary was not able to afford to pay the extra costs to optimise the configuration of her battery by linking it to her solar system.</p>	<p>We consider that positive obligations requiring an energy business to take steps, such as specifying key information that the consumer needs to help them make informed decisions about energy services and asking further questions before providing options for the best product for that customer, could have enabled a better outcome for Mary.</p> <p>For example, Battery Globe would proactively offer key information, advice and assistance to help Mary make an informed decision about the service offering and ensure it meets her needs/delivers her good outcomes. This may include highlighting and providing key information such as the value, costs, fit or appropriateness of the battery and the aggregation service.</p> <p>In addition, Battery Globe would proactively ask questions to determine whether the product and service is appropriate for Mary's household needs and whether it is compatible with Mary's current home energy system. Battery Globe would find out that solar panels have been installed at Mary's house and would recommend a battery that can draw energy from her solar panels, providing her with further savings.</p>
<p>Contracts</p> <p>Point of sale stage: Mary could have benefited if Battery Globe stepped through the important terms of the contract. Consequently, this caused issues later down the customer journey.</p>	<p>We consider that positive obligations requiring an energy business to take steps, such as explaining important contract terms to the consumer and ensuring they understand what they are signing up for, could have supported a better outcome for Mary.</p> <p>For example, Battery Globe would proactively explain the contract terms and ensure they can meet Mary's expectations. Battery Globe would also explain the pros and cons, such as lock-in contract implications and the risk of enabling Battery Globe to control Mary's battery. Battery Globe would also highlight any exit fees if Mary decides to switch providers or plan.</p>

Risk	Current protections
<p>Control of asset and performance of services</p> <p>Use of service stage: Battery Globe was able to draw from Mary's battery and Mary's battery was sometimes left with 30% charge. This became problematic during peak times when Mary needed to buy energy from the grid as she used up the energy in her battery. It would also be a problem during an outage, when Mary's battery needs to be at full (or near full) charge.</p>	<p>We consider that positive obligations requiring an energy business to take steps, such as ensuring energy services perform as intended and ensuring third-party control of the customer's asset are appropriate and do not interfere with the customer's current home energy system, could have enabled a better outcome for Mary.</p> <p>For example, Mary expected to save money by signing up to the new energy system (battery and aggregation service). She also expected that it would continuously provide energy into her house, as Ethan's medical condition requires the humidifier to be on at all times. As a result, Battery Globe would explain the benefits that come with the new energy system, but also explain that Battery Globe is able to discharge Mary's battery down to 30%. Battery Globe would also explain the additional repayments of the battery on top of her energy bills (until she fully pays off the battery).</p> <p>Additionally, from his prior conversations with Mary, Felix would know that Mary needs continuous/reliable energy supply due to Ethan's medical condition. Felix would tell Mary that she is able to set a reserve on her battery's internal settings. This reserve means that the battery cannot be discharged below the set amount and cannot be overridden by Battery Globe. Battery Globe would explain that this may mean the discount received by Mary for her aggregation service is more limited, but it would better meet her needs.</p>
<p>Hardship and change in circumstances</p> <p>Use of service stage: Battery Globe stopped Mary from being able to access stored energy in the battery when she did not pay her bills. This left Mary completely reliant on more expensive retailer provided energy from the grid. As a result, she incurred higher energy costs that she could not afford to pay and incurred debt with her retailer that she had to pay off over time, in addition to covering her higher ongoing energy costs. Battery Globe was not obliged to provide her with hardship arrangements that would enable her to continue using the battery.</p>	<p>We consider that positive obligations requiring an energy business to take steps, such as offering payment plans and hardship programs, could have enabled a better outcome for Mary.</p> <p>For example, Battery Globe would provide support to Mary when she experiences financial difficulty and assist her to maintain her energy service when experiencing payment difficulty. This may include putting Mary on a payment plan or admit her to a hardship program. De-energisation and cancellation of Mary's energy service would only be used as a last resort.</p>

Attachment 2: Stakeholder feedback

As outlined in Chapter 2 of the report, the analysis in this review has drawn on extensive stakeholder input and feedback. While high-level messages from stakeholders are presented in the main body of this report, this attachment provides more detailed discussion of stakeholder views on the following matters:

- the scope of the energy consumer protection framework (see section A2.1)
- the importance of the ‘essentiality’ of energy within the AER’s risk analysis (section A2.2)
- the 3 models for reform that were presented in the options paper released in October 2022 (section A2.3).

A2.1 Feedback on the scope of the energy consumer protection framework

A2.1.1 Areas of consensus among stakeholder groups

Support for expanding the consumer protection framework

Many stakeholders support the AER revising the energy consumer protection framework to capture new and emerging products and services. These stakeholders emphasised the importance of incorporating flexibility into the future framework to mitigate unforeseen changes and risks in the market. Some consumer and retailer groups think a principles-based framework would provide flexibility to support the evolution of traditional services and the introduction of new services and alleviate the administrative burden associated with frequent reviews.

Support for prescriptive elements within the future framework

Similarly, most consumer and retailer groups recognise that retaining some prescription is necessary, with consumer groups advocating for prescription to be limited to significant consumer protections, such as life support, disconnection and reconnections and payment difficulty. Retailers and distributors are supportive of a more prescriptive framework, emphasising the importance of industry having clarity about their regulatory obligations. Retailers also prefer prescriptive authorisation criteria that capture business models and services requiring regulatory oversight as opposed to capturing energy providers that meet a set of principles. They are concerned that the AER’s proposed principles are too broad and subjective to enable energy providers to accurately self-assess whether an authorisation is required.

Concerns with regulating new energy products and services

Some retailers and distributors, and most innovators, express concerns about the regulation of emerging markets. They question whether a revised NECF will adequately address the uncertainties of the future market and mitigate potential risks because we do not know exactly what new products and services will emerge. Further, they argue that excessive regulation may stifle innovation, impose unnecessary regulatory burdens on providers and undermine investor confidence.

Most innovators suggest reviewing data from the various regulators under the ACL to assess if actual consumer harms are occurring in the market before imposing NECF-related

regulation. Some retailers and distributors advise the AER to reassess other flexible models only after quantifying the risks of new energy products and services. Prematurely applying a model without a comprehensive understanding of emerging markets may potentially stifle supply, innovation and investment. Therefore, they recommend conducting a cost-benefit analysis to ensure an appropriate balance between customer protection, service and cost is maintained.

Definition of scope within a future framework

Following multiple ESB-facilitated workshops with stakeholders, the AER proposes the following definition for the scope of the future energy regulatory framework for consideration:

Any service provider that provides an energy service that:

- sells electricity to a customer's premises
- unless exempt, on-sells or exports energy from an embedded network or manages the flow of electricity to and from an embedded network
- exports electricity from a customer's premises
- controls, constrains, prevents or otherwise has a substantial impact on the flow of electricity to and from a customer's premises.

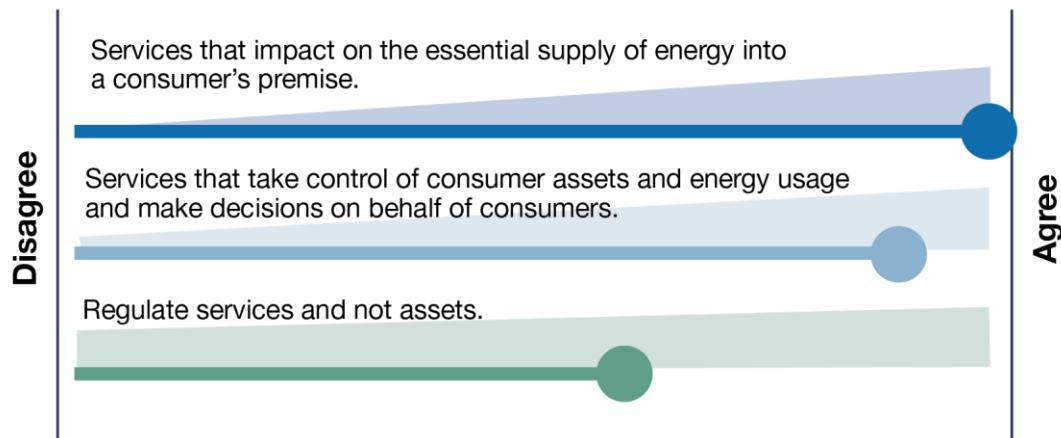
This definition has been developed through our comprehensive risk analysis process and incorporates extensive stakeholder feedback on what should and should not be captured under the future framework. This definition places the framework's focus on energy services rather than consumer energy resources assets (such as electric vehicles or storage batteries), aligning with many stakeholders' views as seen in Figure A2.1.

Figure A2.1 Stakeholder feedback on what should/should not be captured in the future framework

OUT	IN
<ul style="list-style-type: none"> • Pool pumps • Solar panels • Electric vehicles • Home energy management systems • Self-managed ‘widgets’ • Products and services that have not existed for long • Products and services that are not being sold on a large scale, as the impact is on only a small number of consumers. • Self-managed battery (battery as equipment NOT embedded in a service) • An app relied on to manage a battery • Public charging (Australian Competition and Consumer Commission): transparency of price at point of charge, e.g. dollars per kilowatt • Consumer managing their own consumer energy resources through devices, including charging stations (electric vehicle supply agreement) 	<ul style="list-style-type: none"> • Anything that has the ability to impact or interrupt the supply of energy to the consumer • Anything controlled by a third party where decisions are being made by someone other than the consumer themselves • Service providers, i.e., aggregators – those who manage flows ‘in’ and ‘out’ • Aggregators that sell and supply into the market from controlling a consumer’s consumer energy resources • Aggregators (under an energy management system commercial arrangement) that control the customer’s devices where there may be a risk that appliances lose supply (such as if the bill isn’t paid) • Electric vehicle charging at home because it is essential to the supply of the home and can be regulated by the National Energy Customer Framework and Australian Energy Regulator • Where there is active third-party control • Service contracts related to energy

In another workshop facilitated by the ESB, we tested the above view with a wider range of stakeholders. We posed 3 questions (see Figure A2.2) to stakeholders and the responses supported our findings. All stakeholders agreed that services that impact on the essential supply of energy to a consumer’s premises should be captured by the future framework. Most stakeholders also agreed the future framework should capture services that take control of consumer assets and energy usage and make decisions on behalf of consumers. Finally, not all stakeholders agreed the future framework should only regulate services and not assets as they believe there are sufficient risks in new energy products, which require energy-specific regulation.

Figure A2.2 Survey results from workshop in response to whether services should be captured by the future framework



A2.1.2 Views of consumer groups

Some consumer groups encourage the AER to go beyond regulating supplier conduct and actively prioritise good outcomes for consumers. They argue the current framework is unsuitable for most consumers because dispute resolution is not streamlined and consumers are finding the current market complex. Hence, it will not be fit for purpose for future energy services. They also advocate for a stronger focus on enforcement and compliance, ensuring that providers are appropriately penalised. They suggest that penalties should be proportionate to the risks consumers face when their essential energy supply is disrupted.

Other consumer groups believe the idea of carefully balancing consumer protections, the financial burden of compliance and entry barriers for innovators in the future regulatory framework goes against the NEO and NERL and could lead to problems seen with exemptions and embedded networks.

Lastly, they emphasise the importance of minimising the use of exemptions and exclusions in regulation because it creates loopholes for energy providers and results in inconsistent consumer outcomes and protections.

A2.1.3 Views of retailers and distributors

Some retailers and distributors want to retain some sort of authorisation framework because they consider it important for assessing compliance maturity, technical ability and financial capacity in meeting the prudential requirements of the energy market. Some retailers support the shift from point-in-time authorisations to a system that empowers the AER to conditionally grant, modify and revoke individual licences and where businesses must notify the AER of significant changes.

A2.1.4 Views of innovators

EV companies request the AER to exclude public EV charging sites from the future regulatory framework. They argue that EV charge point operators offer transparent pricing, enabling customers to select the most economical and convenient option. Further, unlike household energy plans, there are no switching costs and consumers can use various charge points without being tied to binding contracts. They also view public EV charging as akin to the petrol or diesel industry, where it is currently not regulated. Finally, they endorse

the view that the ACL is the appropriate consumer regulatory framework for these services because it would minimise the risk of regulatory burdens outweighing perceived benefits.

A2.2 Feedback on importance of ‘essentiality’ of energy in AER’s risk analysis

A2.2.1 Views of consumer groups

While some consumer groups encourage the AER to consider the essential nature of energy when considering consumer protection requirements, others believe the focus should be on mitigating consumer harm rather than the concept of ‘essentiality’. For the latter, some consumer advocates propose establishing a clear theory of harm in collaboration with stakeholders and policy makers and assert that a traditional cost-benefit analysis will not be suitable for this review, as the quantification of consumer confidence loss, which is vital for a successful transition, is challenging.

Most consumer and ombudsman groups argue for improved access to free and simple dispute resolution through state-based schemes, encompassing new products and services. According to reports from some ombudsman schemes, certain risk themes explored in the AER’s risk analysis are already manifesting in consumer complaints, including issues with bundling and control of assets. They note the root cause can originate from both sides of the meter, even though the complaint is initially directed at the energy retailer. Other risk themes were similarly reported in surveys and research conducted by some consumer groups. These risk themes included information provision, contracts, data, hardship and change in circumstances, and control of assets. Consequently, they advocate for expanding consumer protections to address these risks.

A2.2.2 Views of retailers and distributors

In the opinion of retailers and distributors, the sale of electricity warrants more extensive protections given the known risks and their severity. Conversely, consumer protections for future energy services, with unknown risks, should initially be limited. They caution against excessive regulation (which can lead to barriers to innovation and negative impacts on consumers), asserting that new regulations should only be introduced when evidence of serious, systemic customer harm across the industry emerges.

A2.3 Feedback on the 3 models presented in the options paper

Table A2.1 Reform models – strengths, weaknesses and stakeholder feedback

Option	Key strengths	Key weaknesses	Summary of stakeholder feedback
Model 1: A tiered conditional authorisation framework, with reduced exemption framework	<ul style="list-style-type: none"> The AER would have greater ability to address the ongoing suitability of authorised businesses and, therefore, manage risks to customers A reduced exemption framework for lower risk sales of energy would ensure the retention of a light-handed regulatory approach where the risk of consumer harm is low 	<ul style="list-style-type: none"> Risk of over-regulation where customer risks are not yet fully known, potentially stifling innovation Different types of providers treated differently – risk of ‘regulatory inequality’ Regulatory burden of market entry and exit for both entrants and the AER would be increased 	<ul style="list-style-type: none"> While some retailers and distributors support expanding the scope of services regulated under energy laws, consumer groups are concerned this model is too close to the status quo and would fail to address current and future consumer needs. Many retailers and distributors argue that a tiered authorisation approach would unfairly burden traditional energy retailers, noting that obligations on new energy service providers would have the least regulatory oversight, despite being an increasingly significant source of electricity supply. Concerns have been expressed that energy services may not fit neatly into the pre-defined tiers.
Model 2: An authorisation framework using a principles-based approach to regulation	<ul style="list-style-type: none"> More flexible and adaptable to a changing market, more easily capturing new energy services (where appropriate) Would support innovation and investment in new services 	<ul style="list-style-type: none"> Determining the appropriate principles may be challenging May create more regulatory uncertainty, leading to barriers to entry More resource-intensive to manage framework 	<ul style="list-style-type: none"> While many stakeholders recognise the advantages arising from the flexibility of a principles-based approach, this model is generally regarded as complex, with concerns that consumers may not understand their rights. Retailers have raised concerns about the lack of transparency regarding service provider obligations.
Model 3: Outcomes-based regulatory framework	<ul style="list-style-type: none"> Because it focuses on customer outcomes (rather than the type of service) 	<ul style="list-style-type: none"> Would require a significant transition from the status quo 	<ul style="list-style-type: none"> While there is broad recognition among stakeholders that the flexibility of this option would be conducive to innovation in an evolving energy market, the challenges

Review of consumer protections for future energy services

Option	Key strengths	Key weaknesses	Summary of stakeholder feedback
	<p>being sold), it allows for high degree of flexibility and adaptability, which would be conducive to market innovation</p> <ul style="list-style-type: none"> • May support the development of trust and social licence in the energy sector 	<ul style="list-style-type: none"> • Small service providers may struggle to interpret and implement the framework • Market entry requirements and compliance and enforcement regime would require careful consideration 	<p>of implementing such a significant change in the regulatory regime are also acknowledged.</p> <ul style="list-style-type: none"> • Consumer groups have identified the need for clear guidance for providers on meeting outcomes, and supported retaining prescriptive rules for key obligations. • Some retailers and distributors have raised concerns that a requirement to achieve consumer ‘best interests’ might introduce regulatory uncertainty and hinder innovation.

A2.3.1 Model 1: A tiered, conditional authorisation framework, with a reduced exemption framework

Views of consumer groups

Most consumer groups and some retailers and distributors present various reasons for their lack of support for model 1. Consumer groups argue that it fails to adequately address current and future issues, resembling the status quo too closely. They also express concerns about the availability of retail and network exemptions for 'low risk' sellers, creating additional avenues for consumer risks and harms.

While most consumer groups do not endorse model 1 in its entirety, they do support certain aspects, such as expanding the current NECF definition to encompass emerging energy providers. They also support some of the principles outlined in the model, including access to energy and access to options.

Views of retailers and distributors

Many retailers and distributors favour model 1 due to its resemblance to the current NECF, which would facilitate a smoother short-term implementation. They argue this model offers the most transparent obligations, which are easily comprehensible for all stakeholders involved and manageable for the AER to administer. Some retailers propose gradually incorporating elements from model 2 (such as the principles around customer protections) once the AER develops a better understanding of what regulations are optimal as new services emerge and integrate with existing forms of supply. However, many wanted further information on this model to fully grasp how these changes would work.

At the same time, some retailers and distributors oppose the transfer of obligations from the National Energy Retail Law to the National Energy Retail Rules (as proposed in the options paper) because it may be perceived as a means of imposing excessive regulations onto energy providers through a 'backdoor process', undermining governance arrangements. They contend that adopting a tiered authorisation approach will not effectively address long-term challenges and will unfairly burden traditional energy retailers, potentially raising competitive neutrality concerns. They argue that treating tier 5 entities as the lowest authorisation tier, although they may be a significant source of a customer's electricity supply, will be inadequate. Additionally, they further raise concerns about the subjectivity and lack of consistency in risk assessments for tier 5 authorisations as services continue to evolve.

Some retailers and distributors also believe this model is highly reliant on the assumption that bespoke arrangements and conditions of products and services can fit into a predefined tier, which may not be feasible. Finally, they caution that the tiered approach appears to be motivated and viewed from the perspective of business models and service offerings and based on the experience from the embedded network framework, it is likely to result in negative and unintended consequences for consumers.

Views of innovators

Innovators recommend creating a tier 6 exemptions class for providers supplying public charging for electric vehicles, citing the small scale and low-risk nature of the EV charging

network. Further, they propose aligning the entry requirements and consumer protections for tier 6 with those outlined in the ACL.

A2.3.2 Model 2: An authorisation framework using a principles-based approach to the regulation of market entry and exit

Views of consumer groups

Many consumer advocates want to see consumer outcomes at the centre of the future model. They see issues with this model because it explicitly determines the obligations for businesses and does not place the onus on them to demonstrate how their practices will deliver good consumer outcomes. While model 2 may not be their preferred choice, consumer groups appreciate its flexibility and acknowledge the need for the framework to anticipate potential changes in small-scale, low-risk business models. They suggest the framework should be guided by a robust set of consumer-centred principles, requiring providers to achieve good outcomes, act in the best interest of customers and provide evidence of implementing these principles to ensure good consumer outcomes. However, they recognise the necessity of some prescriptive rules for specific areas, such as life support obligations, hardship policies and disconnection procedures.

Views of retailers and distributors

Many retailers, distributors and innovators express concerns over the lack of transparency in this model, particularly regarding the application of customer protections and market entry since the specifics and operational details of these aspects remain unclear.

Some retailers and distributors believe this model offers a more balanced framework, addressing regulatory inconsistencies between authorised retailers and exempt sellers, creating a level playing field. However, they express concerns that overly prescriptive guidelines associated with this model could undermine its intended flexibility and hinder innovation. They cite the example of the Better Bills Guideline,⁴⁰ which they view as extremely prescriptive, inflexible and costly to implement. Consequently, many retailers caution against granting the AER the authority to establish regulations through guidelines without a consultation process, because it can lead to confusion and interpretation costs for all parties involved. They suggest establishing non-binding guidelines while allowing regulated entities the flexibility to determine how they meet the regulatory principles.

A2.3.3 Model 3: An outcomes-based regulatory framework

Views of consumer groups

Many consumer groups support this model and believe it will enhance oversight and transparency for the AER, particularly in addressing the shortcomings of the current exemptions framework. Many also view it as a positive starting point for delivering a modern, adaptable and consumer-focused regulatory framework. While many consumer groups endorse this model, they emphasise the need for certain prescriptive regulations to safeguard consumers' fundamental rights to a safe, reliable and secure electricity supply. As with model 2, they argue that specific prescriptive provisions should be retained for issues

⁴⁰ Retailers and distributors argue that the Better Bills Guideline intended to act as guidance for retailers to achieve desired customer outcomes – however, the guidelines currently impose mandatory and very prescriptive regulation for energy businesses.

impacting vulnerable consumers, such as disconnection, payment difficulties, family violence and life support. They support an overarching objective centred on consumer outcomes and suggest considering the UK's Financial Conduct Authority outcomes and OurPower framework as a reference when formulating the outcomes and obligations. Additionally, they support the idea of a compliance plan to ensure transparency and effective enforcement of compliance.

Furthermore, some consumer groups propose enhancing this model by requiring providers to indicate when their products or services are unsuitable for a consumer or unlikely to deliver good outcomes. They believe this approach would encourage providers to suggest alternative options that better match consumer needs and circumstances while providing an explanation for their assessment.

Some consumer groups agree with the approach of including outcomes in this model but highlight the need for further clarification on how the outcomes will work and what guidance will be provided to businesses. As a result, they encourage developing guidance documents to support businesses in understanding the framework, including details on how the existing energy rules will be adapted and how the framework interacts with other legal instruments.

Views of retailers and distributors

Most retailer and distributor submissions do not favour model 3 and argue that, given the current focus on the energy market and recently strengthened enforcement powers, this model is not feasible to implement in the short term. They view this model as a drastic and impractical change, considering the limited knowledge of the future energy market, and express doubts about its effective implementation based on past experiences with outcomes-based models in the industry (for example, the hardship policy in the NECF). They also express concerns about the outcome of acting in the 'best interest' of the customer, fearing it may hinder innovation and introduce regulatory uncertainty regarding its interpretation and enforcement. Additionally, they also note that different stakeholders (such as the AER, retailers and consumers) may have varying interpretations of what constitutes the 'best interest' of a consumer, as consumer interests can change over time.

In their view, this model will require a completely different and pragmatic approach by regulators to ensure compliance risks are not created for retailers and new entrants. However, they find the notion of a compliance plan unrealistic under this model. They argue the current regulatory reporting guideline sufficiently assesses whether a provider is compliant with the regulations and allows providers to self-report non-compliance. They also anticipate the need for templates outlining plan requirements, which would introduce prescriptive measures and restrict flexibility. Moreover, they believe the approval process for compliance plans may slow and deter innovation.

Further, they stress that retailers alone should not bear the responsibility of assisting customers in navigating the new market, as they have limited control over the creation of rules and guidelines. They advocate for a balanced approach, involving both retailer-initiated assistance and regulatory support to ensure customers have clear and easy access to key information, and hence suggest a blended framework encompassing all those elements.