

Retailer authorisation and exemption review

Issues paper

April 2022

© Commonwealth of Australia 2022

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 3.0 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 3.0 AU licence.

Inquiries about this publication should be addressed to:

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

AER reference: AER22005032

Contents

Retailer authorisation and exemption review	iv
Request for submissions	iv
Review timeline and next steps	iv
1 Introduction	1
1.1 Who we are	1
1.2 About the retailer authorisation and exemption review and this issues paper.....	1
1.3 Background	3
2 AER approach to review	5
2.1 Why this review is needed	5
2.2 Review objectives	6
2.3 Using the consumer risk assessment tool.....	8
2.4 Interlinkages with other DER projects	9
3 Current consumer protections framework	13
3.1 National Energy Customer Framework	13
3.2 Other relevant consumer protection tools	17
4 A transforming energy sector	19
4.1 Evolution of the energy market	19
4.2 Interaction of new energy products and services with the National Energy Customer Framework.....	20
5 Current and emerging challenges arising in a transforming energy sector	26
5.1 Existing and emerging challenges with the authorisation and exemption frameworks.....	26
5.2 Embedded networks	30
5.3 New energy products and services unlikely to be captured.....	33
5.4 Identifying risks arising from new energy technologies	33
5.5 Mitigants	41
6 Considering regulatory reforms to manage energy transition challenges	44
6.1 Expanding the scope of the NECF	44
6.2 Designing fit-for-purpose authorisation and exemption frameworks	45
6.3 Other potential changes to the NECF	48
6.4 Other regulatory reform options	48
7 Glossary	54
8 Appendices	55
8.1 Appendix 1: consultation questions.....	55
8.2 Appendix 2: ESB Post-2025 Market Design project reform pathways	57
8.3 Appendix 3: consumer risk assessment tool	58

Retailer authorisation and exemption review

Request for submissions

Interested parties are invited to make written submissions to the AER regarding this issues paper by close of business, Friday 27 May 2022.

Submissions should be sent electronically to: AERpolicy@aer.gov.au

Alternatively, you may mail submissions to:

Mark Feather
General Manager, Strategic Energy Policy and Energy Systems Innovation
Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

We ask that all submissions sent in an electronic format are in Microsoft Word or other text readable document form.

We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process. We will treat submissions as public documents unless otherwise requested. All non-confidential submissions will be placed on the AER's website. For further information regarding the AER's use and disclosure of information provided to it, see the [ACCC/AER Information Policy](#).

We request parties wishing to submit confidential information:

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

If you have enquiries about this paper, lodging a submission, or would like to meet with us to discuss issues raised in this paper, please contact the AER Policy Development team on 1300 585 165 or AERpolicy@aer.gov.au.

Review timeline and next steps



1 Introduction

1.1 Who we are

The Australian Energy Regulator (AER) exists to ensure energy consumers are better off, now and in the future. Consumers are at the heart of our work, and we focus on ensuring a secure, reliable, and affordable energy future for Australia. Energy is an essential service for Australian households and businesses, and a critical contributor to the long-term success of the Australian economy.

We protect the interests of household and small business consumers by enforcing the National Energy Retail Law (Retail Law) and National Energy Retail Rules (Retail Rules). The Retail Law and Retail Rules form part of the National Energy Customer Framework (NECF). Our retail energy market functions cover New South Wales, South Australia, Tasmania, the Australian Capital Territory and Queensland.

1.2 About the retailer authorisation and exemption review and this issues paper

The AER is undertaking a review of the retailer authorisation and exemption frameworks set out in the Retail Law. The need for this review was detailed in the Energy Security Board's (ESB) final advice to energy ministers in July 2021¹ as part of its Post-2025 Market Design project. This project is guiding reform activities across the energy sector to ensure the design of the National Electricity Market (NEM) remains fit for purpose and delivers affordable and reliable outcomes as the sector transitions towards a lower emissions future (see section 1.3 for further details).

This review aims to assess the adequacy of the current energy consumer protection framework in the context of a transitioning energy market. It focuses on the retailer authorisation and exemption frameworks as these are the gateway for energy products and services being captured by the NECF. The review will assess whether these frameworks remain fit for purpose for the post-2025 NEM, whether the NECF should and will capture new energy products and services that emerge in the energy transition, and what regulatory reforms may be required to ensure energy consumers continue to be adequately protected.

The policy rationale behind the creation of the NECF is that the essential nature of the supply of energy requires additional protections beyond those afforded by general consumer protection law. The authorisation and exemption frameworks, set up under the NECF and administered by the AER, are designed to ensure those selling energy are subject to additional regulatory oversight and must provide energy-specific consumer protections outlined in the NECF to their customers. Retailer authorisations are assessed against criteria set out in the Retail Law and exemptions are granted in accordance with the Retail Law and the AER exempt selling guidelines.

¹ Energy Security Board (ESB), [Final advice to governments](#), ESB, 2021.

Since the introduction of the NECF there has been a substantial investment by customers in distributed energy resources (DER) such as rooftop solar, batteries and smart appliances, and this is expected to continue. This is giving rise to the emergence of new energy products and services designed to support consumers in generating, storing and/or managing their energy. Analysis indicates the potential benefits of harnessing flexible demand and the successful integration of DER are around \$6.3 billion over the next 20 years,² highlighting the importance of integrating DER and flexible demand for all customers.

This review will explore how these new energy products and services interact with the NECF and the essentiality of energy supplies to consumers. It will consider whether the current consumer protection framework is fit for purpose for the future energy market and can support customer uptake of new energy products and services.

The development and uptake of new energy technologies and services will be necessary to realise the benefits of integrating DER and flexible demand. However, in the absence of proportionate regulatory and consumer protection settings, there is a risk that new services will expose consumers to harms that impact on the essentiality of energy, or that consumers will not be encouraged to take up new products and services. This review will consider these potential harms and risks and recommend measures to address them.

Measures to address harms will need to be proportionate and balanced against the benefits to consumers from the development of new innovative energy services arising from technology changes and improvements and the transition to a lower emissions economy.

We consider that, without adequate consideration of these issues, there is a risk the uptake of new and innovative energy services could lead to negative impacts for consumers, and reduced trust in the energy sector. This could hinder take-up of these services and detrimentally impact the realisation of the benefits of DER integration, leading to higher costs to consumers overall.

The AER also observes that the experience of embedded network regulation represents a salient example of the risks of rolling out new services without regulatory frameworks that offer effective protections to consumers.

This issues paper commences our public consultation on the retailer authorisation and exemption review, setting out:

- the current consumer protections framework
- the operation of the authorisation and exemption frameworks
- the evolution of the energy sector – emerging energy products and services
- current and emerging challenges with the authorisation and exemption frameworks
- a preliminary assessment of the potential benefits and risks to consumers from new products and services
- potential options for regulatory reform.

² ESB, [Post-2025 Market Design Final advice to Energy Ministers Part A](#), ESB, 2021, p 39.

The paper includes questions throughout to guide stakeholder responses. A full list of consultation questions can be found at appendix 1.

In undertaking the retailer authorisation and exemption review, we are being supported by the Australian Energy Market Commission (AEMC) and the ESB. We are also working closely with the Australian Energy Market Operator (AEMO), industry, consumer groups and other key stakeholders. This issues paper will be followed by a draft recommendations paper and final recommendations paper.

To address potential harms and risks, we will consider a range of options including:

- if new energy services and products are within the scope of the NECF, how changes to the existing framework could mitigate the potential harms and risks identified
- if new energy services and products are out of the scope of the NECF, what new incremental consumer protections, beyond what is provided by the current framework, should be introduced to mitigate and/or monitor the potential harms and risks identified.

1.3 Background

In July 2021, the ESB delivered its final advice on the Post-2025 Market Design project to energy ministers on the Energy National Cabinet Reform Committee. The advice provided recommendations across 4 key reform pathways to support a transitioning energy market, from one underpinned largely by coal-fired generation to a market with more variable renewable energy.³ One key reform pathway is *Integrating Distributed Energy Resources (DER) and flexible demand*, which recognises the electricity sector is moving from a centralised grid model involving one-way flows of energy to a decentralised grid underpinned by a market supporting two-way flows of energy. This reform pathway aims to effectively integrate DER and flexible demand into the National Electricity Market (NEM) while achieving good consumer outcomes.

Under this reform pathway, the ESB highlighted the need for a review of the retailer authorisation and exemption frameworks to understand how the emergence of new technologies and energy service models will impact consumers, and whether the framework is fit for purpose for the future energy market. The ESB stated:

A review of the retailer authorisation process is an important next step because the level of consumer protections that apply to these business models depend on whether the AER provides a full retail authorisation or an exemption (from all or parts of the NECF); and if it provides an exemption, what (if any) conditions are attached to it. The review may also identify where business models are out of scope of the NECF (for example, because they do not involve the sale of energy to customers for premises) and are covered by Australian Consumer Law (ACL) only, and what risks this may pose for consumers and effective retail competition.⁴

³ See Appendix 2 for details

⁴ ESB, [Post-2025 Market Design Final advice to Energy Ministers Part B](#), ESB, 2021, p 82.

The ESB advice highlighted the review should strike ‘the right balance between consumer protections and encouraging innovation in the market.’ Our review will do this by considering new energy services and products, the benefits they will provide consumers as well as the potential harms and risks they, and the conduct of energy businesses providing them, pose to consumers. Based on this assessment, we will develop recommendations on the appropriate regulatory settings to ensure consumers have adequate protections, can realise the benefits of their DER and can actively engage in a competitive market.

The retailer authorisation and exemption review is one of many projects being progressed under the *Integrating Distributed Energy Resources (DER) and flexible demand* reform pathway. The ESB is coordinating activities under this reform pathway through the DER Implementation Plan, which provides a 3-year roadmap setting out the technical, regulatory and market reforms required to integrate DER. The plan sets out activities across various workstreams and sequences key dependencies to ensure the timely introduction of reforms to address urgent needs relating to the uptake of DER. It also provides guidance for where interim measures may be introduced to support industry during reform processes.⁵

In October 2021 National Cabinet endorsed the plan and instructed the ESB to move forward with the roadmap to unlock value for customers from the integration of DER and flexible demand into energy markets. In December, the ESB published a scope of works and forward workplan for the first year (2022) of the 3-year plan, identifying key issues to be addressed, reform activities and details about how stakeholders can engage.⁶ The retailer authorisation and exemption review is a key project to be implemented in the first year and contributes to the key outcome of the plan’s staged approach to have a fit-for-purpose protections framework that improves the experience for all customers.

⁵ ESB, [Post-2025 Market Design Final advice to Energy Ministers Part C – Appendix](#), ESB, 2021, p 28. On 17 December 2021 the ESB also published a scope of works and forward workplan for Horizon One of the Post 2025 DER Implementation Plan, identifying key issues to be addressed, reform activities, and details about how stakeholders can engage: see [energy.gov.au, Post 2025 DER Implementation Plan – commencement of design and implementation process](#), Department of Industry, Science, Energy and Resources, 2021.

⁶ Department of Industry, Science, Energy and Resources, [Post 2025 DER Implementation Plan – commencement of design and implementation process](#), Department of Industry, Science, Energy and Resources, 2021.

2 AER approach to review

2.1 Why this review is needed

With the influx of new technologies and services and the shift to a market characterised by two-way flows of energy, consumers are gaining the ability to have more power over how they interact with and use their energy. New technologies are enabling consumers to generate and store energy, and to have better oversight and control of when and how they consume energy. If DER and flexible demand can be successfully integrated and harnessed the benefits will be significant for all consumers, with an estimated reduction in electricity system costs of \$6.3 billion over the next 20 years.⁷

However, there are challenges and risks that need to be managed. The energy transition is bringing with it the emergence of new technologies and service models and this is driving an increasingly complex landscape. This may make it harder for consumers to understand products and services and make choices best suited to their needs. It is also likely that many new energy products and services entering the market will fall outside the scope of the NECF.

The NECF was enacted to supplement the ACL, the principal consumer protection and fair-trading law in Australia, in recognition of the essentiality of energy.⁸ The NECF imposes a set of consumer protection obligations on energy retailers to ensure consumers can access energy fairly and on reasonable terms. The NECF governs the sale and supply of energy by retailers and distributors, respectively, to customers.

Many new technologies and business models provide services that do not involve the sale of energy, so they may not be captured by the current authorisation and exemption frameworks set up under the NECF. Should services not be captured by the AER's authorisation and exemption frameworks, then any reforms to those frameworks undertaken as a result of this review won't have an impact. This review will assess whether this framework continues to be fit for purpose, with challenges having already been identified with the effectiveness of the framework. As noted above, the AER considers the experience of embedded network regulation represents a salient example of the risks of rolling out new services with regulatory frameworks that offer challenges for protections to consumers.

Many new energy services are likely to capitalise on new capabilities offered by technologies such as batteries and electric vehicles (EVs), or provide home energy management, rather than sell energy to consumers in the traditional sense. These new services may impact on the essentiality of energy supplies for consumers.

To the extent these new products and services sit outside of the NECF, there is a risk consumers could be exposed to harms that may not be adequately mitigated by the ACL or other protection measures in place. This review aims to understand if there are potential

⁷ ESB, [Post-2025 Market Design Final advice to Energy Ministers Part A](#), ESB, 2021, p 39.

⁸ Second Reading Speech to the National Energy Retail Law (South Australia) Bill. South Australia, *Parliamentary Debates*, House of Assembly, 27 October 2010, pp 1746–1749 and see subsection 16 of the Retail Law.

harms that will arise from new energy products and services, the severity of those harms and whether they justify energy-specific protections, such as those offered under the NECF. In exploring these factors, the review will also need to ensure any proposed amendments to the framework also support competition, encourage innovation and consumer take up of and benefit from new energy services and products, while also working to minimise complexity for consumers.

We note that while this review focuses predominantly on electricity, there are currently other changes and reforms occurring in the energy market relating to gas. This includes work to support the integration of hydrogen and renewable gases into the market. These other pieces of work are being considered in the AEMC's review into extending the regulatory frameworks to hydrogen and renewable gases,⁹ as well as work being conducted by the Commonwealth Department of Industry, Science, Energy and Resources.¹⁰

2.1.1 Importance of consumer engagement in DER

The successful transition of the energy market and the integration of DER into the NEM is heavily dependent on consumer uptake of DER. Consumers need to be positioned to readily participate and be actively encouraged to engage with new products and services. To achieve this, consumers need to feel they will be adequately protected when engaging in the new market, and that their needs have been contemplated in the transition. This review is a key piece in understanding the support and protections consumers are likely to require, by considering the risks and harms they may be exposed to and whether changes to the regulatory framework are appropriate and necessary.

2.2 Review objectives

The review will develop a set of recommendations aimed at ensuring the consumer protection framework is fit for purpose for a post-2025 energy market underpinned by two-way energy flows and a significantly more complex landscape of service offerings. To achieve this, we have identified 3 objectives for the review.

1. To identify gaps in the NECF that may inhibit consumers' capacity to effectively engage in a transforming energy market.

The review will identify how current and emerging issues that hinder the effective operation of the authorisation and exemption frameworks are likely to be exacerbated by retail market innovation and what future gaps may arise as a result. To do this, we will also consider lessons from the operation of the embedded networks framework, which previous reviews have found not fit for purpose.¹¹

⁹ Australian Energy Market Commission (AEMC), [Review into extending the regulatory frameworks to hydrogen and renewable gases](#), 2021. Draft recommendations have also been published on 31 March 2022 and can be accessed through the same link.

¹⁰ Department of Industry, Science, Energy and Resources (DISER), [Extending the national gas regulatory framework to hydrogen blends & renewable gases Changes to the NGL, NERL and Regulations](#), 2021. Further details on the consultation can be found at this link.

¹¹ For further reading see: AEMC, [Updating the regulatory frameworks for embedded networks](#), Australian Energy Market Commission, 2019; and also AEMC, [Review of regulatory arrangements for embedded networks](#), Australian Energy Market Commission, 28 November 2017.

This will allow us to determine how the NECF framework will hold up in a transforming energy market. This would also include consideration of whether changes to existing AER guidelines could be amended to address identified issues.

This objective will also consider the extent to which broader consumer protection frameworks, such as the ACL and *National Consumer Credit Protection Act 2009* (National Credit Act), could mitigate identified risks from new energy products and services and whether they offer an adequate level of protection. To do this, we will build on previous reviews, such as those undertaken by the AEMC.¹²

2. To recommend potential reforms to the National Energy Retail Law and/or Rules, and/or other regulatory or non-regulatory initiatives to mitigate the specific consumer harms identified through the review.

While changes to the NECF may be required to ensure the framework is fit for purpose for the future energy market, there may be other solutions that warrant consideration. This could include introducing principles-based regulation utilising a set of broad but binding principles rather than detailed prescriptive rules. In considering any potential reform options, we would also consider how the broader consumer protection framework already mitigates identified risks. This will allow us to consider the most appropriate form of regulation for new energy products and services to achieve our concurrent objectives of encouraging innovation and ensuring appropriate consumer protections.

3. To identify the consumer harms that should be subject to ongoing monitoring by the AER because recommended regulatory reforms may not adequately mitigate identified harms.

The review aims to identify any consumer harms that may not be adequately addressed by regulatory reforms to the consumer protection framework and will require ongoing monitoring by the AER.

Given there is still uncertainty regarding the future energy market, designing regulation now that is fit for purpose and able to predict the exact harms that require protections is difficult. It is likely that reviewing the consumer protection frameworks for the energy sector will need to be an iterative process driven by ongoing monitoring of consumer detriment.

In meeting these objectives, the review will need to consider the concept of ‘essentiality’¹³ regarding new energy products and services. The main policy rationale for the consumer protections introduced in the NECF for the sale of energy is that energy is an essential service. If a new energy service or product has the same essential characteristics as the traditional supply of energy, then there is a clear case to extend the application of the NECF.

However, new energy products and services may not be considered essential in the same way as the supply of energy. These services and products may have interlinkages with or

¹² See AEMC, [How energy consumers are protected under the NECF and ACL](#), Australian Energy Market Commission, 2019 and also AEMC, [Retail Energy Competition Review](#), Australian Energy Market Commission, 2020.

¹³ Essentiality in the energy context refers to the provision of vital daily needs in modern life such as lighting, heating, cooling, refrigeration and the operation of appliances and electronics.

may impact the essential supply of energy but are unlikely to be essential in meeting basic needs for electricity and/or gas. This interrelationship will need to be considered when thinking about potential reforms to the NECF and the type of protections consumers will require when engaging with new energy products and services.

Consideration will also need to be given to the implementation costs and associated regulatory burden that may occur through changes to the regulatory framework.

2.3 Using the consumer risk assessment tool

To establish the harms emerging from new energy products and services posed to consumers, we will use the ESB's consumer risk assessment tool.¹⁴ This tool was developed and included as part of the ESB's final advice delivered in July 2021. The ESB developed the tool to ensure market bodies explicitly and consistently consider consumer benefits and risks as part of, and alongside, design and development of market reforms. This risk-based approach is designed to identify where new consumer protections or other measures may be needed, reflecting the potential of a new arrangement, product or service to cause harm.

The consumer risk assessment tool provides key questions to explore in order to undertake a risks assessment against the following consumer protection principles:

1. access to energy – energy is an essential service, and consumers should have access to at least one source of electricity
2. switching providers – consumers should be able to change retail providers when they choose
3. access to information – consumers should have access to information that is sufficient, accurate, timely and minimises complexity and confusion to allow them to make informed decisions
4. vulnerable consumers – the needs and circumstances of vulnerable consumers will need to be explicitly considered
5. dispute resolution – easy access to no cost dispute resolution should be available to consumers should things go wrong.

The full consumer risk assessment tool is provided at appendix 3.

We also recognise not all consumers are the same and their ability to access and benefit from new energy services and products will vary based on their circumstances. To ensure we account for this in our analysis, we will use the risk assessment tool to uncover the impacts of new products and services on various consumer archetypes developed by Energy Consumers Australia (ECA).¹⁵ It will also be key to consider how the conduct of energy businesses will impact the way these risks unfold.

¹⁴ ESB, [Post-2025 Market Design Final advice to Energy Ministers Part C – Appendix](#), ESB, 26 July 2021, p.26.

¹⁵ Report prepared by 89 Degrees East for Energy Consumers Australia, [A Policymakers' Guide to using Power Shift's Strategic Framework: Supporting households to manage their energy bills](#), Energy Consumers Australia, 2019.

2.4 Interlinkages with other DER projects

The AER's retailer authorisation and exemption review is one of the key year-one projects set out in the ESB's DER Implementation Plan. The plan sets out the reform activities to be undertaken over a 3-year period to unlock value for customers by integrating DER and flexible demand into energy markets. The 3 key outcomes of the plan are:

- consumers have access to secure, reliable, affordable, and sustainable energy no matter how they participate in the energy market
- consumers are able to realise the value of their flexible demand and DER
- fit for purpose protections frameworks improve the experience for all customers.¹⁶

The interlinkages between this review and other projects in the plan are detailed in this section below.

2.4.1 Flexible Trading Arrangements rule change

The Flexible Trading Arrangements (FTA) rule change (developed by AEMO) seeks to help customers unlock the value of DER. It will provide customers with additional options as to how they choose to engage with electricity products and services and how they are approached as two-sided markets develop. This rule change is also a priority for industry and consumer stakeholder groups as the proposed change will enable:

- customers to engage a retailer for their supply of electricity and a separate provider for other electricity services such as EV charging, solar panels, battery services or ancillary services
- new electricity business models that lead to an expansion in energy services and service combinations.

The FTA rule change assessment by the AEMC and our authorisation and exemption review will run in parallel. The two pieces of work have several key interlinkages. Given the FTA reform will help facilitate and promote innovation in the energy market, we will work closely with the AEMC to consider any consumer protection issues raised through the FTA rule change process. This will allow both market bodies to consider any relevant information or insights for these projects. Further details on the FTA rule change proposal are outlined in section 4.2.1 (Box 1).

2.4.2 Customer Insights Collaboration

The ESB is undertaking a Customer Insights Collaboration to enable an end-to-end view of customer issues associated with the integration of DER and flexible demand. This work will test assumptions and understandings about how customers might want to engage with different service providers or products. It will inform the development of standards to support effective switching and identify where risks or harms may emerge with new services becoming available.

¹⁶ ESB, [Attachment A – DER Implementation Plan – reform activities over a three-year horizon](#), ESB, 2021.

In 6-month blocks of work, or 'releases', stakeholders will come together in collaborative, independently facilitated workshops. In these workshops, stakeholders will draw on the best available evidence and analysis to generate insights to inform the delivery of reforms across the DER Implementation Plan.

We will draw on insights from this piece of work to inform our review, in particular to develop our understanding of potential risks to consumers from new energy products and services. These insights will also help in our development of proportionate options to address such risks (where they are not adequately addressed by the existing authorisation and exemption frameworks).

2.4.3 Dynamic Operating Envelopes (DOEs)

Dynamic Operating Envelopes (DOEs) will create new roles and obligations for participants in the management of DER generation. Through DOEs, distributors will be able to vary DER export limits for certain periods throughout the day, subject to the available network capacity. Aggregators, or other third parties, will respond to the amended export limit by relaying this change to consumer smart devices (such as solar PV inverters), facilitating an increase or decrease to the current export limit. DOEs will assist with the integration and growth of DER by enabling visibility of DER in the network and enabling networks to allocate the full capacity based on network conditions. As DER participation increases and consumers are increasingly exporting their electricity into the grid, DOEs will become more integral to maintaining a stable and secure network, including coordinating two-way flows in the grid.

The AER is leading the DOE workstream on behalf of the ESB and is delivering a project that will provide policy direction and advice to the ESB regarding DOEs and their implementation within the NEM. The project aims to evaluate the key policy issues and options for the establishment and implementation of DOEs and associated governance arrangements. This will include consideration of the impacts of DOEs on consumers, the application of the ESB's consumer risk assessment tool and what, if any, changes to customer protection frameworks may be necessary to mitigate risks to energy users.

The retailer authorisation and exemption review will need to consider how customers will interact with the DOE framework and the potential risks this could create, particularly regarding different models that may emerge and how customers can understand and navigate this new avenue to interact with the energy system.

2.4.4 Interoperability

Interoperability refers to the ability of service providers to communicate with and operate DER devices located at a customer's home or business. For customers to have the choice to switch between different energy provider offerings, DER devices must be interoperable. The development of interoperability standards will specify the minimum data and functionality that we must share across the industry to ensure system security, enable customer access to wholesale and network support markets, and ensure simplicity of switching. These standards will provide an important role in ensuring customers can maximise the value of their DER resources and have the choice to take up new products and services.

The development of technical standards is being progressed via the Distributed Energy Integration Program (DEIP).¹⁷ The ESB is currently consulting on the development of an assessment framework to inform consideration of the trade-offs involved in applying technical standards relating to inverter-based DER devices. This will be supported by the work being progressed as an outcome of the AEMC's governance of distributed energy resources technical standards rule change project.¹⁸ The options for interoperability standards being developed will inform our risk assessment of new energy products and services in this review.

2.4.5 Scheduled lite

Scheduled lite is a proposal aiming to facilitate further penetration and active participation of DER, flexible demand and renewable energy by creating opportunities to engage in market services. It will also give greater visibility and certainty to AEMO, the NEM system operator, to assist in the efficient and secure operation of the system. Scheduled lite will do this by enabling small to medium-sized demand and generation resources to actively participate in NEM market processes or dispatch.

The scheduled lite rule change proposal is being developed by AEMO to be submitted to the AEMC in the second half of 2022. Our review will consider the potential harms and risks of aggregation services. This would likely capture many of the consumer risks the scheduled lite rule change may present, as consumers with DER and flexible demand would likely participate in the scheduled lite arrangements via an aggregation-type arrangement. We will feed the findings and details of our assessment at various stages of our review to help with the development of the scheduled lite proposal by AEMO, and later assessment by the AEMC.

2.4.6 ESB Data Strategy

The ESB is progressing a Data Strategy as a critical enabling element to the post-2025 market reforms, seeking to ensure that decision makers and key stakeholders across the sector have access to the data they need, particularly in supporting an efficient and effective market transition. The Data Strategy has significant reforms across core capabilities and governance, regulatory barriers, and priority data gaps.

Data gaps prioritised in the Data Strategy focus on issues of consumer protection and emerging technologies, including:

- billing transparency: providing more effective ongoing data on what consumers actually pay, to close current serious gaps in understanding how different consumers are impacted by different services and technologies in a timely way. Lack of visibility of what

¹⁷ Australian Renewable Energy Agency (ARENA), Distributed Energy Integration Program (DEIP), (accessed 1 April 2022).

¹⁸AEMC, [Governance of distributed energy resources technical standards](#), 2022.

consumers pay was identified by the ACCC Retail Pricing Inquiry¹⁹ as limiting effective monitoring of consumer risks, protections, and competition

- consumer research and metrics: aims to establish more consistent and useful ongoing consumer metrics to support transparency in how different types of consumers are being impacted and changing their behaviour in response to new services. Targeted research, linked to more transparent information on billing, metering and retail and DER services, will provide greater insight into changing consumer decisions, behaviours and impacts across different segments of consumers
- visibility of network performance, EVs and over-voltage impacts: aim to support optimisation of DER benefits, including by supporting more informed decisions by DER customers, service providers and regulators around costs and constraints proposed by networks.

Key outcomes from greater transparency will include:

- support for more light-handed and targeted regulatory approaches, such as monitoring, which support flexibility and innovation
- targeted and timely identification of emerging consumer risks, including greater evidence in using the ESB's consumer risk assessment tool
- greater visibility of impacts on vulnerable sectors to support targeted approaches and improved outcomes.

Our review will closely monitor the ESB Data Strategy as it progresses. It will help inform our recommendations, particularly in relation to how we could monitor ongoing harms identified during our review.

¹⁹Australian Competition and Consumer Commission (ACCC), [Restoring electricity affordability and Australia's competitive advantage Retail Electricity Pricing Inquiry—Final Report](#), 2018.

3 Current consumer protections framework

Energy consumers have 2 main sources of protections – the ACL, administered by the Australian Competition & Consumer Commission (ACCC) and state and territory consumer protection agencies, and the NECF, administered by us, the AER. While the ACL is an economy-wide instrument that applies broadly to the provision of goods and services, the NECF was designed to supplement the ACL and sets requirements on energy retailers to provide energy-specific protections.

Many of the protections under the ACL are principles based and establish penalties and remedies for breach of provisions. Protections can apply to goods and services, including the entry into contracts for the supply of energy with consumers. The protections provided under the NECF set regulatory requirements for persons engaging in the activity of selling energy to customers at premises and do not apply to energy services that do not meet this definition.

This section provides an outline of these 2 consumer protection frameworks, along with other relevant consumer protection frameworks.

3.1 National Energy Customer Framework

Energy is considered an essential service given its role in providing vital daily needs in modern life such as lighting, heating, cooling, refrigeration and the operation of appliances and electronics. The NECF was enacted to supplement the ACL and regulates the sale and supply of electricity and gas to ensure all consumers can access energy on fair and reasonable terms. The implementation of the NECF was also driven by the recognition that small residential and small business customers have little bargaining power and can be put at a significant disadvantage by energy retailers and distributors if their practices are not regulated to ensure certain minimum service standards.²⁰

The NECF incorporates a suite of tools that govern the relationship between retailers and customers, distributors and customers, and retailers and distributors. The NECF is comprised of:

- the National Energy Retail Law (NERL)
- the National Energy Retail Rules (NERR)
- the National Energy Retail Regulations.

The NECF has been adopted and operates in the Australian Capital Territory, Queensland, New South Wales, South Australia, and Tasmania.

Regarding the sale of energy by authorised retailers, the NECF provides consumer protections²¹ relating to:

²⁰ Second Reading Speech to the National Energy Retail Law (South Australia) Bill, South Australia, *Parliamentary Debates*, House of Assembly, 27 October 2010, pp 1748–1750.

²¹ For detailed information see information on the AEMC website: AEMC, [How energy consumers are protected under the NECF and ACL](#), AEMC and AEMC, [Mapping the NECF and the ACL](#), AEMC.

- contract terms – retailers can only provide retail services to small customers under standard and market retail contracts, with minimum requirements for the provision of energy under these contracts²²
- marketing and offers – there are legal requirements that retailers and retail marketers must comply with when providing information and when marketing retail contracts²³
- information requirements – under the NECF there are additional information requirements for retail contracts²⁴
- disconnection and reconnection protections – there are specific requirements that a retailer must adhere to with respect to customer disconnection and reconnections²⁵
- financial difficulty – there are protections available to consumers in financial difficulty such as for hardship²⁶
- consumers experiencing vulnerability – the NECF provides protections for consumers on life support equipment²⁷
- complaints and dispute resolution – there are mechanisms available to consumers to resolve complaints and disputes with retailers²⁸
- retailer failure – the NECF sets out a Retailer of Last Resort (RoLR) framework, which ensures the continuity of energy supply to customers in the event of the failure of their retailer.²⁹

The AER administers the NECF and market entry through the authorisation framework. The AER also has other roles in retail energy market regulation,³⁰ which specifically include:

- monitoring and enforcing compliance with obligations in the Retail Law, Rules and Regulations – this includes the power to issue infringement notices, accept enforceable undertakings and commence legal proceedings where there is a potential breach of the NECF consumer obligations
- reporting on performance of the market and energy businesses, including energy affordability and disconnection of customers for non-payment of energy bills
- assessing authorisation applications from businesses that want to become energy retailers, and exempting businesses from authorisation requirements (for example, nursing homes and caravan parks that on sell energy to tenants)

²² Part 2 of the Retail Law and Part 2 of the Retail Rules

²³ Part 2 of the Retail Rules.

²⁴ Sections 38-42 of the Retail Law, also Part 2, Division 10, of the Retail Rules.

²⁵ Part 6 of the Retail Rules.

²⁶ Sections 43-52 of the Retail Law, Part 3 of Retail Rules, also Part 6 of the Retail Rules

²⁷ Part 7 of the Retail Rules.

²⁸ Sections 79-87 of the Retail Law, The Retail Law sets out the Ombudsman Scheme and there are various references within the Retail Rules to this Scheme.

²⁹ Part 6 of the Retail Law.

³⁰ For further reading see information on the [AER](#) website.

- approving policies energy retailers must implement to assist customers facing financial hardship and looking for help to manage their energy bills
- administering a retailer of last resort scheme, which protects customers and the market if an energy retailer fails.

3.1.1 Authorisation and exemption frameworks

The NECF sets up an energy retailer authorisation process through the NERL. The authorisation framework plays a vital role in prohibiting a person from engaging in the activity of selling energy to a person for premises unless that person holds a current retailer authorisation or is an exempt seller. Under the NECF we are responsible for assessing applications for a retailer authorisation or exemption. The authorisation and exemption processes are set out below.

3.1.1.1 Authorisation process

Any person engaging in the sale of energy to customers for premises must apply for a retail authorisation. Under the existing framework, retail authorisation applications are assessed at a point in time against 3 Retail Law criteria:³¹

- organisational and technical capacity – the applicant must have the necessary organisational and technical capacity to meet the obligations of a retailer
- financial resources – the applicant must have resources or access to resources that support financial viability and financial capacity to meet the obligations of a retailer
- suitability – the applicant must be a suitable person to hold a retail authorisation. This includes the degree and honesty the applicant has shown in previous commercial dealings and whether they are likely to contribute to the National Energy Retail Objective.³²

If an applicant can satisfy the 3 criteria, an authorisation is granted until the time it is rescinded by the holder and/or revoked by the AER.

The retailer authorisation framework recognises the essential service provided by retailers and that their conduct can have immediate financial and social impacts on customers. It acts as a gatekeeper and limits entry to only those businesses that can demonstrate a high likelihood of being willing and able to comply with their regulatory obligations. In doing so, the framework seeks to facilitate appropriate market entry and to balance the objectives of increased choice and benefits for consumers while limiting, to an extent, the likelihood of

³¹ See subsection 90(1) of the Retail Law.

³² Set out in section 13 of the National Energy Retail Law: 'To promote efficient investment in, and efficient operation and use of, energy services for the long-term interests of consumers of energy with respect to price, quality, safety, reliability and security of supply of energy'

inappropriate conduct. This aims to provide ongoing market stability and limit disruption caused by retailer failure.³³

3.1.1.2 Exemption process

The NECF also recognises that not all persons or businesses engaging in the activity of selling energy to a person for premises should be required to obtain a retailer authorisation and expend costs to comply with all the obligations set out in the NECF. Retail exemptions are distinct from authorisations in that they may apply where the sale of energy is either:

- incidental and not the main part of someone's business
- provided as a community service or at cost
- to a defined group of customers at one site.

The retail exemption framework was developed to manage the practice of on selling (or reselling) energy. This is when a person or business purchases energy from another person or business (usually an authorised energy retailer) and sells it to a customer through an embedded network, such as a shopping centre, apartment building, retirement village or caravan park. The main relationship the on seller has with their customer is not the sale of energy.

The exemption framework currently provides for 3 classes of exemptions:

1. deemed exemptions – usually for small-scale supply arrangements where the costs associated with exemption registration would outweigh the benefits of increased regulation. For example, the selling or supplying of energy to short-term accommodation in a caravan park. Deemed exemptions are 'automatic' in the sense an applicant does not need to register the exemption with the AER if the applicant meets certain requirements
2. registered exemptions – usually for energy supply activities we consider need greater transparency and regulatory oversight. For example, the sale and supply of energy to permanent residents of a caravan park or retirement villages. Persons eligible for registered exemptions must register their business name and details about their business activities through an online form on our website as these exemptions are not automatic. However, while the AER maintains the register, we do not approve or grant registrable exemptions
3. individual exemptions – required in circumstances where an applicant is unable to conform to all the conditions applicable to any relevant class of registered exemption, or where there is no applicable class. The AER reviews (as a point-in-time assessment) and grants or refuses individual exemption applications on a case-by-case basis.

³³ MCE Standing Committee of Officials, A National Framework for Regulating Electricity and Gas (Energy) Distribution and Retail Services to Customers: Policy Response Paper, 2008, pp 77–78; MCE SCO, Regulation Impact Statement: A National Framework for Regulating Electricity and Gas (Energy) Distribution and Retail Services to Customers, 2009, p 77.

While the AER does not approve or grant registrable exemptions, or require exempt sellers to register deemed exemptions, the AER determines and publishes the classes of sellers that require a registered or deemed exemption.

Exempt sellers are required to comply with conditions but generally the regulatory requirements are not as stringent as those for authorised retailers. The core conditions that an exempt seller must meet are based on customer protections under the Retail Law but will vary according to the exempt seller's operations.³⁴

3.2 Other relevant consumer protection tools

Beyond the NECF, the ACL provides general consumer protections for energy consumers. A range of other tools also provide protections. In considering the potential harms to consumers from new energy products and services, this review will take account of the broader consumer protection frameworks and the adequacy of these tools in providing protections to energy consumers in instances where the NECF may not apply. We have outlined some of these key tools in this section.

3.2.1 Australian Consumer Law

The ACL is the principal consumer protection and fair-trading law in Australia. It was enacted in 2011 and aims to provide consumers with protections when buying goods and services. It takes a principles-based approach to promote fair trading and includes protections for consumers relating to:

- misleading and deceptive conduct³⁵
- unconscionable conduct³⁶
- unfair contract terms³⁷
- consumer guarantees³⁸
- unsolicited consumer agreements³⁹
- product safety.⁴⁰

The ACL also contains specific carve-outs relevant to energy regarding unfair contract terms and consumer guarantees.

3.2.2 Voluntary New Energy Tech Consumer Code (NETCC)

The New Energy Tech Consumer Code (NETCC) is a voluntary industry code of conduct, which outlines expected industry practices for the sale of new energy technology products, systems and services by retailers to residential and small business customers. NETCC

³⁴ For further reading see information on the AER's website on [retail exemptions](#).

³⁵ For further reading see ACCC website information on [Advertising and selling guide](#)

³⁶ For further reading see ACCC website information on [Unconscionable conduct](#)

³⁷ For further reading see ACCC website information on [Unfair contract terms](#)

³⁸ For further reading see ACCC website information on [Consumer guarantees](#).

³⁹ For further reading see ACCC website on [Unsolicited consumer agreements](#).

⁴⁰ For further reading see ACCC website on [Product safety](#).

signatories would principally sell solar photovoltaic (PV) systems but it is intended to apply to a broad range of behind the meter technologies, including energy storage systems and electric vehicle charging, and aims to cover the main steps of the customer journey.

3.2.3 Financial Services Law and Credit Protection Act

The Australian Securities and Investments Commission (ASIC) is the regulator for consumer credit under the national credit legislation, which includes the National Credit Act and the National Credit Code (which is Schedule 1 to the National Credit Act). The National Credit Act provides that, where consumers obtain credit contracts or consumer leases, those they engage with must be licensed and comply with responsible lending requirements. Consumer protections provided under this Act also include hardship, addressing unfair contract terms in standard consumer contracts and ensuring a dispute resolution system is in place.

The *Corporations Act 2001* also provides a licensing regime for the provision of financial services and financial products. Some new energy products may cross over into financial services. This may include financing to install solar PV through consumer obtained credit, which is then paid off by a consumer over a set period.

4 A transforming energy sector

This section of the issues paper outlines new energy services and products emerging in the changing energy market. It discusses whether new services and products are likely to be within the scope of the NECF and the proposed use cases/business models we will use to identify the harms and risks that may arise from these energy services and products.

4.1 Evolution of the energy market

The NEM is changing at a rapid pace, as are the technologies with which we generate, store and control energy. This evolution is transforming the way consumers interact with and manage their energy supply, with the market increasingly characterised by two-way flows of energy. A fundamental component of this transformation is the integration of DER, such as solar PV installations, small-scale battery storage, EVs, and smart devices providing demand response services, allowing consumers greater control over how they interact with their energy usage.

With its abundance of sunlight, Australia has witnessed significant uptake of DER – 3 million small-scale solar systems are now installed on Australian rooftops, equating to over 1 in 4 houses and many non-residential buildings. Estimates predict over the next 2 decades 13 to 24 gigawatts of rooftop solar PV capacity will be added.⁴¹ The uptake of DER is giving consumers greater opportunity for engagement in the energy market and greater agency in their energy use and management, whereby they can now buy and/or generate their energy, and store and efficiently manage and even optimise energy usage at their premises.

While these opportunities present significant improvements in how consumers can use and manage their energy, there are also potential risks and harms that could arise.

4.1.1 Examples of new energy products and services

The energy transition is bringing with it an influx of new energy products and services, including:

- aggregation services (such as virtual power plants) combine and coordinate energy resources (such as decentralised generation, storage, and controllable loads) to deliver services for power system operations and electricity markets. Consumers with DER technologies that enable them to manage their energy usage (including energy exports into the grid) could participate in a virtual power plant⁴²
- no bill retail electricity plans are where a party supplies and installs a custom-designed device in a customer's home, such as a solar or battery system, which the party controls. The party also takes control of the customer's bills for a period, depending on the arrangement, assuming all charges
- arbitrage plans are where the use of distributed energy resources on a premises is optimised with the grid supply of electricity to create value for a customer

⁴¹ Australian Energy Regulator (AER), [State of the Energy Market 2021](#), AER, 2021, p 8.

⁴² For further information about virtual power plants, see information on the [AEMO website](#).

- microgrids are a local energy grid with control capability, meaning they can disconnect from the traditional grid and operate autonomously.⁴³ A microgrid can be used to optimise DER energy generation and usage within the microgrid and provide connected customers with backup supply in the case of emergencies
- Energy as a Service (EaaS) business models capture the idea that the focus is no longer just on the delivery of electrons, but rather on the overall services provided. For example, instead of the supply of energy to a premises, an EaaS model would focus on the energy services provided at a premises, such as lighting or entertainment
- community batteries are large, shared batteries used by several households
- home energy management services offer orchestrated management of energy consumption by smart appliances, including air conditioning, pool pumps, EVs, batteries, and whitegoods, through an energy management service.

The above list is not intended to be exhaustive, it is also likely other new products and services may be developed as the energy market evolves.

4.2 Interaction of new energy products and services with the National Energy Customer Framework

The NECF was established at a time when the uptake of DER was more limited and DER-based services and products were still in their infancy. Therefore, as a starting point we have considered how energy products and services would interact with the NECF.

The application of the NECF is set out in the Retail Law. Importantly:

- a retailer is defined as a person who holds a retailer authorisation⁴⁴
- a retailer authorisation (or exemption) is required where a person is engaging in the activity of ‘selling energy to a person for premises’⁴⁵
- the consumer protections in the NECF apply to a retailer to the extent they sell electricity or gas or both.⁴⁶

Many of the emerging and/or new products and services described above may not fall within the definition of ‘selling energy to a person for premises’. This is because these products and services focus on how DER resources, and/or energy supply, are utilised, and may not supply energy for use ‘at premises’. As such, a key issue we propose to explore in this review is whether the NECF should be updated to cover some or all new energy products and services to address the potential consumer risks they may produce.

4.2.1 Proposed approach to identifying harms and risks arising from new energy products and services

⁴³ For more information about microgrids, see <https://www.energy.gov/articles/how-microgrids-work>.

⁴⁴ See subsection 2(1) of the Retail Law.

⁴⁵ See subsection 88(1) of the Retail Law.

⁴⁶ See subsection 16(1) of the Retail Law.

To identify the potential harms and risks that may arise from new energy products and services, we propose to use several broad business models. This is because many of the emerging and new energy products and services have similar characteristics and can be grouped together for analysis. These business models are set out in Table 1.

Table 1 Business models for emerging and new energy products and services

Use cases/Business model	Further information
EV charging	<p>EV charging can be broken down into two further scenarios:</p> <ol style="list-style-type: none"> 1) Where an EV charging service provider sells electricity to the end customer at their premises (household or business) then this will likely be captured under the NECF 2) Where an EV charging service provider sells electricity to the end customer at a premises that the end customer does not own or occupy, this is unlikely to be captured by the NECF. Examples of this could be a streetside EV charger, office building or a service station.
Aggregation and/or energy management services	<p>Aggregation services utilise behind the meter DER 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. Further information about aggregation services is provided in section 4.1.1.</p> <p>Aggregators are already aggregating capacity from DER assets located at the premises of multiple end customers to provide ancillary services to NEM markets.</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 energy usage between DER located at a customer's premises and the electricity network, which may lead to bill savings for customers.</p> <p>One reform aimed at encouraging greater participation of DER resources in the NEM market is the scheduled lite proposal (see section 2.4.5 for more information).</p>
Multiple energy providers	<p>Consumers may soon be able to have multiple energy providers at their premises, with each provider supplying a different type of energy 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 utilises the solar panels and battery on the premises to provide grid support services. <p>As part of the ESB's DER Implementation Plan, AEMO intends to submit its FTA rule change, which seeks to introduce new metering arrangements to enable multiple energy providers as well as address current models in the market. See Box 1 for further details.</p> <p>We note the multiple energy providers scenario may overlap with the aggregation and/or energy management services scenario. However, we will use the scenarios to draw out different issues.</p>

Use cases/Business model	Further information
Embedded networks and microgrids	<p>Embedded networks may contain DER assets that are controlled and operated by the embedded network operator. For example, an apartment complex that is an embedded network could have a community battery. The embedded network framework may also limit the opportunities apartment owners have to utilise their DER or flexible demand within the NEM. Some embedded networks may take the form of microgrids, where the embedded network owner may seek to optimise a range of solar and battery resources on the embedded network 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 embedded network with DER assets on site and manages how they are used.</p>

In section 5.4 of this paper, we have undertaken a preliminary risk identification of these use cases/business models using the consumer risk assessment tool. Our intention is to use the use cases/business models during the review to assess these potential harms and risks that new energy products and services may bring to consumers.

Box 1 – AEMO flexible trading arrangements rule change to enable multiple energy providers

With the entry of more DER into the NEM, the ESB recognised the need for flexible trading arrangements (FTA) to enable the separation of controllable electrical resources (batteries, solar systems, EV charging) from passively connected electrical resources (household lighting and general appliances) in a customer’s house or business. As part of the DER Implementation Plan, AEMO will submit its FTA rule change proposal to the AEMC for consideration.

The FTA rule change seeks to enable consumers at premises to have multiple energy providers, should they choose to do so, by establishing a private metering arrangement – a sub-metered connection behind the primary meter, which allows DER resources to be managed by a separate energy provider to the retailer responsible for the primary meter.

AEMO considers FTA will provide end users with greater choice in how they access DER and the range of services that flexible forms of generation, storage and load could support. It will allow end users to be rewarded for flexible demand and generation without needing to make significant behavioural changes to their traditional energy usage. FTA reforms will support the development of new retail business models that lead to an expansion in energy services and service combinations.

The FTA rule change proposal also raises consumer protection issues to be considered – that is, what consumer protection obligations should apply to these ‘other’ energy providers. As part of our review, we will consider these consumer protection issues and share with the AEMC any views from stakeholders and our analysis of the issues.

4.2.2 Essentiality

As set out in section 3.1, a fundamental principle underpinning the NECF is that energy is an essential service and small customers (both residential and small business customers) have little bargaining power and can be put at a significant disadvantage by energy retailers and

distributors if these practices are not regulated to ensure minimum standards. The essential nature of energy warrants the additional regulatory burden and cost to serve.

The development of the NECF was also borne from the need to ensure protections for the most vulnerable customers.⁴⁷ Given essentiality forms the key policy rationale underpinning the NECF, a key factor when considering how new energy products and services should be treated is whether they have characteristics that make them essential. If a new energy service or product has the same essential characteristics as the traditional supply of electricity, then this would point towards extending the scope of the NECF to include the new energy service (if it is not already captured). The appropriate level of consumer protections may also depend on the type of consumer and level of bargaining power they are likely to have (relative to the energy product or service provider).

At this point in time, many new energy products and services are unlikely to be considered essential in the same way as the traditional supply of energy. An example of this is that EV charging facilities are unlikely to be essential because there are other modes of travel available to use and access, other than an EV. These new products and services can create value for customers and help better utilise DER and flexible demand in the NEM, but they are not essential to ensuring customers are supplied energy.

However, some new energy products or services may impact the supply of energy. For example, an energy aggregation service may temporarily stop or reduce the supply of energy to a household without any notification to the customer in response to changes in the wholesale electricity price. Such a change may impact the way a household uses their energy (for example, through an adjustment to the thermostat on a household smart air-conditioning appliance).

We are interested in stakeholder views on whether they consider any new energy products or services essential and the risks to consumers associated with these products. We are interested in understanding the consumer protection arrangements that should apply to mitigate the risk of any harms and whether these can be delivered through the NECF or whether alternative regulatory frameworks may be appropriate.

Additionally, new energy products and services may not be considered essential but may impact the supply of energy and/or pose potential other risks. This could warrant the need to consider whether these products and services require additional specific consumer protections beyond the ACL, such as those provided in the NECF.

4.2.3 Importance of DER integration to realisation of system-wide benefits

The take-up of new energy products and services will be vital in realising the broader benefits to consumers of the ESB's Post-2025 Market Design project. The success of redesigning the energy market to enable a two-way system where consumers can buy energy but also generate, store, and sell it back to the market, rests on many factors. One of these is the ability for consumers to effectively engage with new technologies and services that support the realisation of the benefits of the new market design (such as aggregation, battery storage, solar PV and EVs). If there are barriers to the entry and/or uptake of these

⁴⁷ South Australia, Parliamentary Debates, House of Assembly, 27 October 2010, p 1746.

technologies and services, the broader benefits of the Post-2025 Market Design work in facilitating two-way flows and providing additional DER and flexible demand-led resources to the market may be inhibited.

Consumer protections should support the development of competitive markets for new energy products and services and give customers confidence to take up new DER-based services and products. We consider this should be a factor in determining what measures are appropriate to address the identified harms and risks.

4.2.4 Traditional regulatory responsibilities in the energy transition

A broader issue we may need to consider in this review is the impact of regulatory burden on competitive neutrality between traditional energy providers (such as retailers) and new energy providers. While a retailer providing a traditional energy supply service is not going to be providing the same service as a provider offering a new energy service, these services will impact how the other is used. For example, new energy service providers whose products or services fall outside the NECF are currently not required to comply with consumer protection requirements set out in the Retail Law and Rules, such as providing hardship arrangements.

This may place a disproportionate burden on retailers, particularly as new services and products reduce the need, volume, and quantity of the traditional energy supply service. This could create competitive neutrality issues, whereby new energy services and products have a competitive advantage because they are not required to comply with the NECF.

As such, our review may need to consider where traditional regulatory responsibilities currently borne by retailers best fit in a transitioning energy market where both traditional and new DER energy products and services operate.

Consultation questions

1. Do you agree with the approach of using use cases/business models to identify the harms and risks of new energy services and products? Please explain why.
2. Do you consider the use cases/business models appropriate to assess the harms and risk of new energy services and products? In particular:
 - a. What, if any, changes should be made to the use cases/business models set out in this issues paper?
 - b. Are there any other use cases/business models we should consider? Please provide examples.
3. Do you consider any of the use cases/business models outlined to be essential in the same way as the traditional supply of energy arrangement is? If so, what is the appropriate level of consumer protections that should be applied to these products and services? Please explain.
4. How do you see new energy services and products interacting with the essential nature of the supply of energy?
 - a. Please specify which types of new energy services and products may substantially impact the supply of energy to a premises.

b. How do you think risks created by a new energy service or product on the supply of electricity should be addressed? Should they be treated the same as energy products and services considered essential? What factors should the AER take into account when considering what consumer measures are appropriate and proportionate?

5. Do you agree with the proposal to take into account the need to encourage the uptake of DER-based energy services and products when considering what measures are appropriate to address or mitigate potential harms and risks? Please explain why.
6. Do you consider that issues may arise if retailers continue to bear the burden of regulatory responsibilities set out in the NECF? Should this review consider where traditional regulatory responsibilities belong under the consumer protection framework to ensure it is appropriate for an energy market with both traditional and new energy services? Please give reasons for your views.

5 Current and emerging challenges arising in a transforming energy sector

The transformation of the energy sector will bring significant benefits for consumers. However, there are many challenges and reforms to manage to ensure these benefits can be fully realised and that the appropriate regulatory frameworks are in place to enable consumers to effectively engage with the transitioning energy market. This section sets out:

- existing challenges with the current authorisation and exemption frameworks, which are likely to be amplified by the energy market transition
- our initial identification of the potential harms and risks to consumers from new energy services and products. This initial assessment has been undertaken by applying the consumer risk assessment tool to the use cases/business models set out in Table 1.

5.1 Existing and emerging challenges with the authorisation and exemption frameworks

This review will assess how the current authorisation and exemption frameworks operate and whether it is fit for purpose for the energy transition. As the energy sector evolves and new products and services emerge, it is evident the current authorisation and exemption frameworks will become increasingly ineffective at regulating certain types of new entrants to the energy market. This is because many new energy technologies and business models may not involve the sale of energy, meaning they will not be captured by the authorisation or exemption frameworks.

Further, alongside emerging issues with the framework, the energy transition is also amplifying pre-existing issues and challenges with the current framework. These issues are outlined in this section.

5.1.1 Authorisations are a point-in-time process

At the time of being granted an authorisation, a business must prove it is a suitable entity to operate as an energy retailer. The AER assesses authorisation applications against the entry criteria set out under the Retail Law and must be satisfied that the applicant has the financial, technical, and organisational capacity and expertise to manage the activities it declares it wishes to undertake.⁴⁸ Under the current framework, authorisation is granted to retailers to supply either electricity or gas (or both) to all customers in jurisdictions that have adopted the NECF in perpetuity.

Historically, the risks of providing authorisations in perpetuity have been low, as expansion of activities by a retailer would typically relate to established business models already prevalent in the retail market. However, this is likely to change in the future as the energy market transitions and the range of potential business models expands.

⁴⁸ See subsection 90 of the Retail Law.

There is no ability for the AER to reassess an approved authorisation based on changes in circumstances, such as material changes in a retailer's business model or changes in the scope or size of their operations or customer type compared with what was assessed by the AER at the initial point of entry. For example, an applicant for gas or electricity authorisation may submit a business plan where it purports to sell to large commercial and industrial customers. The current NECF does not give the AER scope to later review or impose conditions on this authorisation should the retailer then supply residential customers. Because the AER has not assessed whether the retailer has the capacity to satisfy these obligations, there is a risk of customer detriment if retailers do not enhance systems and organisational capacity when they pivot to new activities.

Recently, with the market diversifying and the emergence of new services and technologies, the AER has noticed variations in business models proposed by energy retailers. For example, new technologies, such as home solar PV and batteries, and the installation of neighbourhood or community batteries that offer services directly to customers and provide opportunities for new aggregation services enabling customers to store energy in batteries for later use. This provides sellers with arbitrage opportunities to sell into the wholesale market as well as system and network services markets. In these instances, the distinction between a sale of energy that is covered by the authorisation framework and an add-on service that is not may be less clear.

When assessing an application for authorisation, the AER must either grant or refuse the application.⁴⁹ Unless the applicant is a failed retailer or an associate of a failed retailer, the AER must grant the application if it is satisfied the applicant meets the entry criteria set out in the Retail Law, or will satisfy the entry criteria once they address conditions imposed by the AER.⁵⁰ The AER is not able to impose ongoing conditions that limit the scope of the authorisation to customer type (such as limiting to commercial and industrial customers) or restrict the authorisation to a specific business model, and/or cap the number of customers that can be supplied by the retailer.

This risk of consumer harm may be lessened by providing the AER with tools to limit the scope of authorisation to particular categories set out in the business plan submitted by businesses seeking to retail energy and requiring authorised retailers to seek further approval before expanding or undertaking new activities. This is particularly important for new business models, for which the consumer harm may not be fully understood or covered by the NECF.

Although retailers are required to self-report compliance quarterly,⁵¹ this reporting does not identify changes in business model or structure or capability of an entity, including changes in senior staff and the use of third parties to undertake core functions. There has been a significant increase in the number of energy retailers operating in the market in recent years and the point-in-time nature of the assessment process may be subject to gaming. For example, applicants may appoint third parties or staff with relevant skills and experience to satisfy the organisational and technical criteria but may remove these resources once the

⁴⁹ Subsection 92(1) of the Retail Law

⁵⁰ Section 92(2); section 93 of the Retail Law.

⁵¹ Section 274 of the Retail Law

authorisation is granted. The removal of these resources would impact the assessment by the AER on the relevant factors and satisfaction of the organisational and technical capacity criteria and put the retailer in a position in which the AER would not have granted authorisation. If unaddressed, this could increase the risk of non-compliance with the key functions of operating as a retailer in the NECF, including consumer protections.

New models raise further questions about the adequacy of consumer protections provided under the current authorisation framework. For example, the current framework places a specific set of obligations on the authorised retailer, but the rise of more complex service offerings means there may be multiple coordinated entities providing energy supply and related services. It may be more appropriate to task each with particular obligations to provide consumers (and the AER) with greater clarity over who has responsibility for compliance with these obligations. It may also be appropriate to reduce the scope of the authorisation to the specific service and business model that is proposed or a particular class of customer. This approach may also reduce compliance costs for retailers with niche offerings or specific customer classes by reducing the reporting requirements to those that are applicable to the scope of the authorisation rather than all reporting requirements, as is currently required.

The AER can take various compliance and enforcement actions in response to a retailer engaging in breaches of the NECF however, for authorisations of persons engaged in the activity of selling energy to consumers, the AER's only tool is to revoke authorisation entirely. This is a very blunt instrument in response to consumer harm and one that would trigger a retailer failure event (called a RoLR event in the Retail Law) and risk continuity of supply.

The AER has not yet revoked an authorisation. However, where alternative remedies to address systemic or significant compliance breaches have been exhausted, this option may be considered if the problems outlined in this section continue to be exacerbated by the retail market transition.

The ability for the AER to impose conditions that apply to ongoing conduct of an authorised retailer would provide an alternative means to address risks of customer harm and potential non-compliance. This may include an ability to impose conditions on authorisation, including audits of capability and retailer expertise to identify risks when changing internal capacity, systems, and capability. We acknowledge this approach would place an additional compliance burden on retailers and will require an assessment of the feasibility of additional monitoring.

With recent market diversification and the emergence of new services and technologies, the AER has noticed variations in the business models proposed by energy retailers. Consideration needs to be given to the appropriateness of the current regulatory framework to regulate these new sellers. Consideration also needs to be given to how to achieve the right balance between innovation and appropriate consumer protections.

5.1.2 Company acquisitions of authorised retailers

Where an authorised retailer is wholly acquired by another entity, the AER has no ability under the current framework to assess the acquirer against the Retail Law criteria for granting authorisation. It may give rise to consumer harm because the AER is not able to assess the suitability of the acquirer. We consider the potential for consumer harm is likely to

be exacerbated in a transitioning retail market where new retailer business models, including those offering new products and services, are more prevalent and where retailers may be acquired by businesses that may not satisfy the Retail Law criteria.

This could be mitigated by requiring AER approval if there is a change in control of the authorised entity by another entity that is not already an authorised retailer. If AER approval is not granted, the authorised retailer would be required to surrender their authorisation. The surrender process under the current regime enables the AER to approve the transfer of customers to another retailer.

The authorisation framework does not require an applicant to have an intention to retail in order to be granted an authorisation. If an applicant does not intend to retail, they are not required to demonstrate they have the same level of financial resources as a company that does intend to retail. This could result in the authorisation of 'shell retailers' that are later acquired by new players attracted to emerging services markets that seek to fast-track entry.

This risk could be mitigated by the ability to impose conditions that require retailers to show they will supply energy to customers within a specified period of being authorised or require them to surrender their authorisation. As discussed in section 6.2.1, the Essential Services Commission Victoria (ESCV) is able to impose conditions on a licensee. Conditions have included requiring a licensee to commence the licensed activity within a set time of granting the licence, otherwise the licence is revoked.

The approach of imposing conditions would be insufficient if the retailer had commenced retailing in the past but was now dormant and had no customers. Under this scenario, the framework would need to consider options for the regulator to revoke authorisation or compel a retailer to surrender its authorisation.

Under the current NECF framework the regulator is unable to revoke the authorisation of dormant retailers on the basis they do not, or do not intend to, sell energy to consumers.

The Retail Law⁵² provides that the AER may decide to revoke a retailer authorisation. For example, the grounds for revocation in the case of electricity retailer authorisation include:

- a retailer has breached a requirement to be a Registered Participant in the wholesale market for the purposes of purchasing electricity through a wholesale exchange, or
- the AER is satisfied there has been a material failure by the retailer to meet the obligations of a retailer under the energy laws, which creates reasonable apprehension the retailer will not be able to meet its obligations in the future.

5.1.3 New business models are not suited to the current exemption framework

Originally, the exemptions framework was designed to permit the on selling of energy that is incidental and not the core activity of an entity's business. However, as the energy market is evolving, we now see increasingly complex business models rely on exemptions because they do not fit the typical business model requiring authorisation.

⁵² Section 107 of the of the NERL

For example, business models may include the sale of energy to large numbers of customers in an embedded network, involve multiple service offerings such as solar PV, onsite/home community batteries and demand management options, and there may be multiple entities selling energy or providing each service. Another example is energy on selling to a large number of customers at an adjacent site.

Business models such as these do not obviously correspond to the intention of providing an exemption for the incidental on selling of energy. An authorisation may be more applicable to these types of models. However, the AER does not have the power to compel entities to obtain a retailer authorisation in circumstances where it may be more suitable than an exemption. In such circumstances, the AER can pursue an entity for potential non-compliance for not obtaining an authorisation should the entity sell energy to customers.

5.1.4 Oversight of exemptions is limited

The AER has limited visibility of exempt sellers. In the case of individual exemptions, the approving and granting of exemptions is conducted as a point-in-time assessment and the AER has little visibility of the exempt seller once the individual exemption is granted. In the case of registrable exemptions, the framework does not require the AER to approve or grant registrable exemptions in the same manner as individual exemptions, so it has even less regulatory visibility of exempt sellers relying on this class of exemption. In the case of deemed exemptions, the framework does not require exempt sellers to register exemptions with the AER, meaning the AER has no visibility of exempt sellers relying on this class of exemption.

The AER has less oversight over the compliance of exempt sellers with exemption conditions than it does over authorised retailers. This means the AER may only become aware of breaches through customer complaints, including to the various ombudsman schemes.

While imposing new conditions or varying conditions on existing individual exemptions is permitted, individual exemptions under the current framework are granted in perpetuity. Therefore, the AER relies on exempt sellers to come forward to notify any changes to original business models to allow consideration of whether the current exemption remains appropriate.

We consider the potential for consumer harm is likely to be exacerbated in a transitioning energy market where exempt sellers may expand their service offerings to include new products and services, and where the AER is likely to have limited intelligence of these changes and impacts on customers given the lack of visibility over exempt sellers.

5.2 Embedded networks

The regulation of embedded networks, and the risks and harms that consumers located in embedded networks may face, is consistently raised in the energy sector as an issue of concern. Embedded networks are private electricity networks that serve multiple customers and are connected to another distribution or transmission system through a parent connection point. Generally, these networks are exempt from being a network service

provider⁵³ 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 setting may not have the same level of consumer protections as those connected directly to the grid.

Common examples of embedded networks include shopping centres, retirement villages, apartment complexes and caravan parks. Embedded networks may occur as new developments or as retrofits of existing buildings. Embedded network operators secure long-term electricity contracts from retailers to support the provision of power to the building, which the embedded network then on sells as a monopoly.

Embedded networks pose potential harms to consumers given the way they are set up. These harms are well established and were identified in work by the AER and a previous AEMC review of embedded networks undertaken in 2017, which found the framework may no longer be fit for purpose.⁵⁴ Existing harms from embedded networks are likely to be exacerbated in a post-2025 energy market, whereby consumers in embedded networks are unlikely to have access to or control over how they access new technologies and service models.

The existing harms consumers may face in embedded networks are summarised in Box 2.

Box 2 – Embedded network consumer harms

Lack of retail competition: Customers in an embedded network are permitted to buy electricity from either an authorised energy retailer or the embedded network (as an exempt seller). However, in practice, consumers in an embedded network often have difficulty buying energy from a seller other than the exempt seller, so have limited retailer choice. This is due to the way the network may have been wired or metered or because energy retailers may not want to sell to a consumer inside an embedded network. Conversions into embedded networks can lead to customer harm if occupants are not properly informed of the limitations imposed on their access to retail competition and alternative supply options.

Potentially higher prices: without competitive pressure to lower prices in embedded networks, exempt sellers (and retailers selling in embedded networks) may charge higher prices than those available to customers directly connected to the grid.

Supply issues: Lack of dispute resolution processes or complaints management can lead to customers waiting significant periods for reconnection following disconnections, or embedded networks not taking responsibility to supply energy. Further, if the embedded network is not an ombudsman scheme member, customers may find themselves in a situation where there is no ‘mediator’ to assist with reconnection of supply.

Lack of payment assistance: For many embedded networks, the on selling of energy is incidental to their core business and they may not have the administrative resources,

⁵³ Network Service providers must register with AEMO if they own, operate or control a transmission or distribution system, unless they are exempted by the AER (if they meet specific criteria or if they are appointing an intermediary). For further reading see AEMO’s website information on [Register as a Network Service Provider \(NSP\) in the NEM](#).

⁵⁴ AEMC, [Review of regulatory arrangements for embedded networks](#), AEMC, 2017.

sophistication or understanding to ensure customers in payment difficulties are afforded the required protections. Customers may not receive protections that would be available if the customer was supplied by a retailer, including prevention from disconnection.

Life support: Lack of administrative resourcing or adequate process/systems in embedded networks may lead to life support customers not receiving the required protection from disconnection. Further, the threshold for customers in an embedded network to meet the requirement for initial registration as a life support customer is higher than the threshold an authorised retailer customer faces in that embedded network customers must provide medical evidence up front.

Other consumer protections not available to embedded network customers include de-energisation and re-energisation obligations, information provision to ensure consumers understand and can effectively engage with the products they are on, and RoLR provisions to ensure continuity of service if an embedded network operator is no longer able to offer energy.

The AER has considered these issues with embedded networks in our current review of the retail exempt selling guideline and network exemptions guideline. The draft retail exempt selling guideline was released for consultation in March⁵⁵ and the draft network exemptions guideline will be released in the coming months. The AER has taken steps as part of the review of the guidelines to mitigate some of the issues, however, note that other issues are outside the scope of the guidelines.

Embedded networks are also a good example of where protections for consumers straddle 2 pieces of legislation (the Retail Law and National Electricity Law) and where the enforcement options available to the AER are significantly different under both laws. Under the Retail Law, an exempt seller must comply with applicable conditions imposed by the AER.⁵⁶ Accordingly, a breach of a condition under a retail exemption may attract civil penalties. However, there is no equivalent provision in the National Electricity Law that governs network exemptions. A breach of a network exemption condition is not explicitly a breach. Therefore, the extent of the AER's enforcement power in breaches of network exemption conditions is unclear.

It is open to the AER to revoke a network exemption in the event of a breach of a network exemption condition, and a civil penalty would then apply if the embedded network continued operating. However, revocation should be exercised with caution. A revocation that gives cause to transitioning embedded networks back to standard supply arrangements could potentially impose high costs on embedded network customers.

While the AER has made progress to address issues in embedded networks, the retailer authorisation and exemption review will build on the AER's work and AEMC review to consider potential issues with embedded networks in the context of how they will interact with new energy products and services. This will involve:

⁵⁵ See the AER's [draft retail exempt selling guideline](#).

⁵⁶ See subsection 112(2) of the Retail Law.

- considering barriers for embedded network customers in engaging with new energy products and services
- the risks posed to customers in the transitioning energy market
- how the current exemption framework may need to change to mitigate embedded network harms.

Lessons on the operation of the embedded network framework could provide insights into consumer harms that may arise more generally if the authorisation and exemption frameworks are considered to no longer be fit for purpose in a world of new energy products and services.

5.3 New energy products and services unlikely to be captured

As discussed in section 4.2, new business models may not involve the sale of energy to customers for their premises and will not be required to hold an authorisation or exemption. This means many new energy products and services could sit outside the scope of the NECF, which could leave consumers with new energy technologies exposed to potential harms without the benefit of the minimum requirements set out in the NECF. This is discussed in further detail in section 5.4.

Consequently, as new energy products and services emerge, ensuring adequate consumer protections becomes a key issue. While new energy technologies aim to empower consumers to realise the value of their DER assets and flexible demand, they also come with potential risks and harms.

Consultation questions

7. Are the current authorisation and exemption frameworks fit for purpose?
 - a. What risks do you see with the current frameworks?
 - b. What consumer protections do you think are missing from the frameworks?
8. Is the point-in-time assessment for retailer authorisations and individual exemptions fit for purpose? Why/why not?
9. How can we limit the risk of consumer harm when retailers or exempt sellers significantly expand/change business activities and capabilities after authorisation or exemption?
10. How can the AER better address serious misconduct of authorised retailers and exempt sellers?

5.4 Identifying risks arising from new energy technologies

New energy products and services that unlock the value of DER and flexible demand will provide benefits for all customers. If efficiently integrated into the NEM, even customers without DER and flexible demand will benefit from lower electricity system costs.

However, new energy products and services are likely to be more complicated than traditional energy supply arrangements and may present additional risks to consumers. Box 3 provides an example.

Box 3 – Example of new energy service – EV charging plan

Glenn, an EV owner, signs up for an EV charging plan with energy retailer EV-Co. In this plan he gets 200 kWh/month of charging free, which covers his 30-kilometre roundtrip to work each day, and he pays 30 c/kWh for all other energy used in his house. The free charging must be done through an EV-Co charger, either in his house or in their public charging network. Glenn lives in an apartment so can't install a charger, but instead uses the EV-Co public charger that can be accessed at on-street parking on his street. The simplicity of having his electricity and EV charging costs in one package was appealing, as well as accessing the charging network.

3 months into the plan, the local EV-Co charger no longer works. Glenn contacts EV-Co and they inform him it could take up to 3 months to fix the charger. During this time Glenn needs to charge at home from his wall plug, which is slower to charge and incurs the 30 c/kWh cost or drive 8 km to the next nearest public charging station.

Later, Glenn experiences financial hardship and has difficulty paying his energy bills. When he falls behind on payments, he is put on a repayment program by the retailer, but his access to the public charging network, and therefore his free EV charging, is revoked. This means he must charge his car from the wall plug in his house, further pushing up his energy bill.

To consider the additional consumer protections beyond the ACL and broader consumer protection framework that may be required for new energy services and products, we must consider both their benefits and risks to customers. To identify the challenges and risks associated with new energy products and services, we propose to apply the ESB's consumer risk assessment tool to the use cases/business models set out in section 4.2.1 to identify the potential harms and risks. The tool provides key questions we will consider throughout this review to assess the severity of the risks and how they can be mitigated.

We have undertaken a preliminary benefits and risks identification below. We welcome stakeholder feedback on the use cases/business models and our initial risks identification. We also welcome stakeholder feedback and information about new energy services or products that may result in harms to consumers.

Our identification and assessment of risks will evolve throughout this review as we:

- consider stakeholder submissions to the issues paper
- consider relevant findings from the ESB's Customer Insights Collaboration project⁵⁷
- consider feedback and insights gained in workshops with consumer and industry stakeholders.

⁵⁷ ESB, [Integration of distributed energy resources \(DER\) and flexible demand](#), ESB, accessed 2 March 2022.

We also recognise that consumer interaction with new energy products and services, including benefits and risks, will depend on their circumstances. Thus, we also propose to consider different consumer archetypes. We propose to draw on the archetypes developed by ECA:⁵⁸

- a family with two young children – the family has two children aged 4 and 6 and they own their home. One parent works part-time at the council and the other full-time as a nurse
- a single mum with two teenagers – the family rents a unit. The mum works full-time in a supermarket and the sons are teenagers
- battler Bob – has struggled to hold jobs and moved in and out of accommodation. He is now on a pension and is in public housing accommodation
- a small manufacturer – Alan runs a small manufacturing business out of premises he owns. The business is energy intensive and energy costs are significant for his business
- an accountant – Soraya runs a small accountancy business in a tenanted building in the inner suburbs
- a hairdresser – Muktar runs a busy hairdressing salon with an apprentice in a suburban shopping strip with similar neighbouring businesses.⁵⁹

We welcome stakeholder views on whether the consumer archetypes developed by ECA are sufficient or whether there are additional archetypes we should consider.

The following sections outline our preliminary identification of the risks consumers may encounter as new technologies and services enter the market. We have not considered how the current regulatory framework could mitigate these risks but have set out potential mitigants in section 5.5. As the review progresses and we further explore the risks to consumers from new energy products and services, we will develop our understanding of how current regulation will provide protection, and where additional protections may need to be implemented.

This identification of risks is not exhaustive but rather serves to illustrate how we will use the consumer risk assessment tool to consider benefits, risks, harms and mitigants.

5.4.1 EV charging plans

Protections and risks may differ depending on how EV charging is provided (whether it is at the end customer's premises or offsite).

5.4.1.1 Benefits

Consumers will have increased options and the ability to access charging points at their convenience at new access points, such as streetside, shopping centres, car parks or

⁵⁸ ACIL Allen, [Report to Australian Energy Market Commission - Consumer archetypes for a two-sided market](#), 2021.

⁵⁹ Report prepared by 89 Degrees East for Energy Consumers Australia, [A Policymakers' Guide to using Power Shift's Strategic Framework: Supporting households to manage their energy bills](#), Energy Consumers Australia, 2019.

offices. Consumers can consider charging their vehicle while they work or shop. EV charging plans may offer better rates compared with a retail supply arrangement, incentivise charging when there is surplus DER generation available on the electricity grid or otherwise be better value.

5.4.1.2 Risks

Access to energy

Customers may be able to charge their EV by plugging it into an electrical outlet point at their house when at home. A customer who has access to streetside parking may require access to an offsite EV charger/charging station to charge their vehicle. However, given a consumer can access other modes of transportation, we consider access to an EV charger is not an essential service in the same way as the supply of energy is to a household. However, this may change once EVs become the main type of vehicle used by customers. In this scenario, access to EV charging would more likely be considered essential. It may be desirable in the future to ensure customers are able to have access to EV charging within a reasonable distance of where they reside/are staying.

Switching providers

The ability to switch EV charging providers could be inhibited by an EV charging arrangement that could be bundled with the purchase of an EV. Access to other providers could also be restricted (such as being locked in through smart software or a hardware limitation unless there is interoperability between devices).

If an EV is locked into one charging arrangement this could create issues. For example, the customer would not have access to cheaper EV charging options and if they are locked into one charging arrangement that becomes no longer available this could create issues.

Exit fees and other limitations (contractual, physical and software) may make it difficult for customers to leave their EV charging arrangements.

Access to information

As the energy sector transitions, plans such as EV charging may become more complex and be intermingled with bundled products. Consumers may not be given enough information to understand their EV charging arrangement and make informed decisions.

Consumers experiencing vulnerability

Some consumers may not be able to access these services due to social and financial circumstances. Further, some consumers may find it difficult to understand what they are signing up to and what that means for them and their energy supply due to literacy and other vulnerabilities. EV services may be mingled with other non-energy products and services, and it is not clear what dispute resolution mechanisms will be in place, such as whether there will be access to an ombudsman service if the EV charging stops working.

5.4.2 Aggregation services/and or energy management services

Energy management service with behind-the-meter DER (solar, battery, EV) and export of energy.

5.4.2.1 Benefits

For aggregation services, consumers can unlock the value of DER assets located on their premises by exporting it back to the grid where it can be aggregated with other latent DER capacity, such that these services can be provided in commercial quantities. Consumers could also participate in aggregation services by reducing demand and being paid for it. This could be done remotely by the aggregator through smart devices when needed, which control flexible demand.

Energy management services offer consumers the ability to reduce their energy prices by optimising how energy is consumed on their premises. This could be done by:

- optimising when energy generated by DER located on premises is used and when energy supplied from the grid is used
- reducing demand on the premises through control of flexible demand, which could be done remotely through smart devices.

An energy service provider, depending on consumer choice, could provide one or both services.

5.4.2.2 Risks

Access to energy

Consumers that have access to aggregation services or energy management services are likely to have access to a primary energy connection and these services will likely be secondary connections or add-on services. These products and services are likely to not be an essential service.

However, there may be interdependencies or linkages between essential energy supply and an aggregation service that need to be considered. For example, essentiality may be impacted if a customer signs up to a service that allows an aggregator or retailer to manage their smart appliances/solar PV in order to arbitrage the wholesale energy market. It is possible this could result in the aggregator/retailer increasing the customer's smart air conditioning thermostat on a high temperature day so that the aggregator/retailer is able to sell higher levels of electricity into the wholesale market at high prices.

Other situations could arise where a customer defaults on payments for expensive DER appliances/assets (for example an EV) or aggregation service payments and this results in the customer's access to energy being placed at risk.

Switching providers

Consumers may have invested in a bundle of DER, including appliances and home management plan that could lock them in to a certain arrangement. If there is no interoperability between technologies and/or appliances with the relevant service provider, consumers may not be able to easily switch providers. Consumers may also be locked into contractual arrangements, whereby there may be fees to exit these contracts, or they may be paying off an asset with a third party meaning they cannot leave the contract.

If the provider of the aggregation service is an authorised retailer and fails (for example, defaults and/or is suspended under the National Electricity Rules), the retailer of last resort (RoLR) provisions will apply to the sale of energy. The RoLR scheme is designed to ensure

that when a retailer fails, their customers will automatically be transferred to a designated RoLR to allow them to continue to receive electricity and/or gas. If the provider is not an authorised retailer, the RoLR scheme is unlikely to apply, and this may affect a customer's rights to switch to another service provider.

Further, DER telemetry and portability may not be available. This means that devices may need a specific service provider to function in the way consumers would like them to.

Access to information

Aggregation and energy management devices and services are likely to be complex products. Consumers will require easy-to-understand information to comprehend the arrangement, how the devices work and what they are paying for. Consumers are likely to be subject to remote management of their services and devices and may not be aware of who is managing access to their device. This may mean that a smart device turns off something at home that the consumer considers necessary, but the aggregator or energy manager does not. This may mean an aggregator/energy manager uses their access to the customer's DER assets to their benefit and the customer's detriment. For these products and services, it is important a consumer-inclusive design framework is used to mitigate these risks.

Consumers experiencing vulnerability

Aggregation and energy management devices are likely to be complex and potentially expensive if the purchase of assets is required. Some consumers may not be able to access these services due to vulnerabilities and may not understand what they are signing up to. Consumers may invest in DER to manage bill shock however they may not understand the terms of the credit contract and may be reliant on the use of exports to repay the bills or loan.

Dispute resolution

Aggregation and energy management services and products may intersect with other sectors (such as financial services where consumers need to access credit when purchasing a DER asset). This means it could be unclear to a consumer who is responsible for resolving a dispute when something goes wrong.

Some consumer disputes may be energy specific (for example, de-energisation in the event of default) or they may emerge through credit default or breaches of the Credit Act. The expansion in product and service offerings, and the bundling of products, are likely to result in a far more complex landscape for consumers to navigate when there is a problem and could make dispute resolution processes difficult to access.

Other considerations

Potential issues could arise if a consumer is locked into a contract to pay off a device or assets. Managing the process of when a consumer leaves a premises and is unable to take a device or asset with them but has outstanding debt to repay on those assets, needs to be considered.

In relation to scheduled life, scheduling obligations and/or liability can be passed onto a customer should the provider choose to pass these on. Further consideration should also be given to the need to inform customers of the benefits, costs, and risks of uptake of these services.

5.4.3 Multiple provider model

A retailer and another entity providing different services behind the meter (enabled by the flexible trading arrangements rule change).

5.4.3.1 Benefits

This will allow consumers to engage another provider for energy services in addition to the traditional supply arrangement they have with their retailer. This can be used to enter into arrangements to unlock value from DER assets located at the household or business or to supply a specific asset or appliance (such as EVs).

5.4.3.2 Risks

Access to energy

Multiple provider models will allow consumers to access more than one provider. Access to these models is unlikely to be considered essential given consumers will still have their primary supply of energy. However, some coordination may be required between providers to ensure the essential supply of energy is not interrupted. Some consumers may not be aware that a multiple provider arrangement exists at their premises. The review will need to consider who should be the responsible entity for informing a consumer of such arrangements.

Switching providers

The ability to switch providers may be inhibited if consumers are locked into a service. They may have purchased a device such as a battery and need to pay it off with a third party.

There is a risk future property owners may be bound by multiple provider arrangements entered into by a previous owner.

Access to information

These new models will likely add complexity to the way consumers interact with their energy use because they may have to manage multiple relationships with different entities. Consumers may not be given enough clear information to understand the arrangement. The way the arrangement works may not be apparent to the consumer, and there may be risks that usage and billing arrangements are not properly explained or left unclear. Energy services and products may be marketed and sold in ways that take advantage of the complexity and potentially mislead consumers.

Consumers may also not be aware if there is already an established behind-the-meter connection available where they reside.

Having multiple energy services may also result in a financial mismatch between arrangements. For example, a customer that enters into a 'spot price' deal with one service provider and a 'fixed price' deal with another service provider – depending on the consumption and generation patterns, and the market outcomes – could find themselves out of pocket.

Consumers experiencing vulnerability

Some consumers may not be able to access these services due to their specific vulnerabilities. They may not understand because they are not given sufficient information, or

information that is easy to understand, about the arrangements or how the multiple trader model impacts or changes their access to their energy supply. Similarly, vulnerable users may find they are sold complex products and services that have not been properly explained. This could result in these customers experiencing payment difficulties due being sold a product not suited to their circumstances. Vulnerable consumers may also not be able to access hardship arrangements for any secondary connections.

Dispute resolution

Complexity in service arrangements and multiple provider models may make it hard for consumers to understand who to contact with a complaint or issue. Services provided via the secondary connection point may not be covered by the NECF and may not have dispute resolution arrangements.

5.4.4 Embedded network

An apartment complex where there are DER assets that are optimised and controlled by the embedded network operator.

5.4.4.1 Benefits

The apartment complex may be able to lower electricity costs by optimising how the DER assets within the embedded network are used – for example through importing energy from the grid during off-peak periods and storing in onsite batteries for use during peak periods. The parent meter connection to the grid is often treated as a large energy customer and receives discounted network tariffs compared with residential customer connections. If these benefits are distributed to customers in embedded networks, it could result in lower network and energy usage charges compared with customers directly connected to the grid. This could result in the consumers having lower prices if the apartment complex chooses to pass on the reduced costs to customers.

5.4.4.2 Risks

Embedded networks are generally owned by an entity who on sells energy to occupants. The savings generally accrue to the owner and are not shared with embedded network occupants. The occupants often pay the same network charge they would pay if they were directly connected to the grid and often receive minimal (if any) discount off the standing offer price of the local area retailer, which is the maximum price exempt sellers are allowed to charge.

Access to alternative forms of energy

Because of wiring issues, embedded network occupants are generally not able to install solar PV systems or batteries at their individual premises, limiting their ability to engage with alternative sources of energy.

Switching providers

As previous reviews of embedded networks have highlighted, there are significant barriers for embedded network customers to engage with any contestable retail energy services.

Access to information

Prospective occupants are often not provided adequate information about the energy supply arrangements and limitations in an embedded network they move into, and are often unaware of them until they move in.

Consumers experiencing vulnerability

Consumers may not understand what it means to be in an embedded network and how it impacts their energy supply, usage, and pricing. Being in an embedded network means there is a lack of competition and transparency and a lack of choice available to consumers. The embedded network customers have limited access to hardship arrangements, and minimum disconnection provisions do not apply. The risks to consumers experiencing vulnerability may be further exacerbated by more complex embedded network arrangements, such as microgrids, where payment and billing arrangements are more complex.

Dispute resolution

Consumers may have access to an ombudsman scheme, but this is likely to only be available if the embedded network provider has signed up to the relevant ombudsman scheme.

5.4.5 The impact of conduct by energy businesses

The conduct of retailers and other energy businesses could have a significant impact on how the risks identified above in section 5.4 play out across all new products and services. How products and services are marketed and sold, the terms and conditions attached to products and services, and the parameters of contracts (for example if they are lock-in) will likely impact the severity of the risks to consumers. For example, door-to-door sales driven by commissions are likely to result in greater risks for consumers as compared to in-store sales where a consumer is actively seeking to sign up to new products and services.

When identifying and assessing risks from new products and services we will need to consider how the conduct of energy businesses could impact outcomes for consumers. The growing complexity of the energy market means their conduct is even more pertinent regarding consumer outcomes. The information provided at the point of sale, alongside sales tactics, will be pivotal in the successful uptake of new products and services by consumers, and realising the broader benefits of the energy transition. Whether additional protections are required to mitigate poor conduct will be a consideration during this review, including whether such protections may be required in the NECF.

5.5 Mitigants

While some potential harms captured under our preliminary risk identification may require additional protections, there are a suite of existing consumer protection tools and potential future reforms, which may work to address and mitigate these risks. As part of our review, we will consider these mitigants and whether they are sufficient to protect against the harms and risks identified. Potential existing mitigants include both regulatory and non-regulatory tools. Regulatory tools include:

- the NECF: where new energy products and services involve the sale and supply of energy, consumers will be protected by the NECF

- the ACL: may provide adequate protections for some potential risks and harms, particularly in relation to ensuring consumers are not misled or provided false information about new energy services
- Consumer Data Right (CDR): the consumer data right⁶⁰ will be rolled out in the energy sector and will enable consumers to access their data through accredited providers, enabling consumers to make better informed decisions regarding energy providers and services. This may promote greater competition in the market and could mitigate potential switching barriers. This will be dependent on data available, which may be limited by data holders that are captured through the CDR designation instrument
- interoperability and technical standards: will ensure consumers' DER devices can communicate effectively, enabling consumers to switch easily between alternative retailers and providers and ensure they can use different energy assets together
- industry codes: industry codes such as the NETCC can provide some protection for consumers for particular issues
- ESB Data Strategy: will provide greater transparency of consumer impacts, allowing light-handed monitoring approaches. This will support flexibility for new services and innovation, early identification of emerging consumer issues, assessment of materiality, targeted consideration of impacted subgroups and greater feedback of information to consumers to build competitive pressures and trust.

Beyond these tools, there are non-consumer protection elements that can play a role in mitigating harms to consumers. It will be critical for industry to build a strong social licence with energy consumers. Developing trust and demonstrating a strong willingness to do good by consumers will give consumers the confidence and feeling of support they require to take up new technologies and engage with new service models. This will allow the benefits of the energy transition to be properly realised.

For this to happen, industry will need to be proactive in providing clear, trusted information to consumers, at the right times. Increasing transparency in product and service offerings and consumer information will be vital for consumers' ability to effectively engage in a two-sided market.

Consultation questions

11. Do you agree with our proposed approach to identifying the risks and harms that new energy products and services may pose to consumers? Please explain why.
12. Do you agree with the identified risks and harms to consumers? Please explain why. Are there other key risks and harms we should consider?
13. Do you agree with the proposed approach to use the consumer archetypes developed by the ECA when assessing the identified risks? Please explain why. What other key consumer types should we consider?

⁶⁰ For further information please see Commonwealth Treasury's website on [Consumer Data Right](#).

14. How do you think the conduct of energy businesses is likely to impact the identified risks around new energy products and services? Do you agree with the need to consider whether additional consumer protections for these services should be included in the NECF?
15. Have we adequately captured potential mitigants? Are there other mitigants we should consider?

6 Considering regulatory reforms to manage energy transition challenges

As outlined in section 5.1, the authorisation and exemption frameworks are becoming less fit for purpose. Looking ahead to a future energy market, consumers are going to have a vastly different relationship with the energy market. They are likely to have multiple traders providing energy supply and services and to engage with products and services not covered by the NECF. This creates a strong case for regulatory reform.

There are inherent challenges in designing regulation for a future market where there are still many uncertainties. Proposed changes to the authorisation and exemption frameworks will need to balance various factors to ensure they support consumer engagement in new energy products and services. These include minimising regulatory burden and simplifying regulatory frameworks, creating a market that incentivises, rather than stifles innovation, ensuring competitive neutrality between traditional retailers and new market entrants offering new technologies and service models. Ultimately, any changes must ensure consumers can reap the benefits of a two-sided market through consumer-inclusive design and frameworks with adequate protection.

This section sets out some options for regulatory reform we could consider as our review progresses. These have been considered with the lens of ensuring risks are addressed appropriately so consumers can participate and share in the benefits of an energy system that integrates DER and flexible demand, while also considering the costs of additional regulatory burden and how these may be passed on to consumers. We consider that potential solutions will need to take a consumer-inclusive design approach to ensure consumers are supported and adequately protected through the energy transition and in the future energy market. We would be interested in stakeholder views on the options presented and which ones warrant further analysis and consideration by the AER.

6.1 Expanding the scope of the NECF

An option for managing the emerging or potential risks and harms to consumers arising from the uptake of new energy products and services is to expand the scope of the NECF so that, if appropriate, these new products and services are captured. As set out in section 4.2, the Retail Law sets out the scope of the NECF which, relevantly, includes that:

- a retailer authorisation (or exemption) is required where a person is engaging in the activity of ‘selling energy to a person for premises’⁶¹
- the consumer protections in the NECF apply to a retailer to the extent they sell electricity or gas or both.⁶²

This means consumers who purchase products and services that do not constitute the activity of selling energy to a person for premises will have the consumer protections set out in the ACL, but not those contained in the NECF. This review will need to consider the

⁶¹ See subsection 88(1) of the Retail Law.

⁶² See subsection 16(1) of the Retail Law.

adequacy and appropriateness of the ACL in providing protections to consumers taking up new energy products and services.

Where the review finds that ACL protections are inadequate, or that it may be appropriate to afford consumers of new energy products and services the additional, energy-specific protections in the NECF, we may recommend expanding the scope of the NECF to include some or all these new products and services. This could be done by amending the provisions of the Retail Law that govern retailer authorisation and exemption and the application of the consumer protections in the NECF⁶³ to include products or services that have certain characteristics that may require consumers to have additional, energy-specific protections. For example, new models of essential service supply, as determined by this review.

6.2 Designing fit-for-purpose authorisation and exemption frameworks

Going forward, we need to ensure the energy sector has appropriate protections in place so consumers can maximise their engagement in the transition to new energy products and services. The focus of this review is to understand the appropriate type and level of regulation that should be applied to new energy products and services. Alongside expanding the scope of the NECF, the energy sector may also require:

- a more flexible authorisation framework that provides greater regulatory oversight for the AER to address the sale of energy, including new energy services
- an exemption framework for use in limited circumstances that can also determine when new energy services are appropriate for exemption.

Point-in-time authorisations and the lack of a monitoring regime are unlikely to be fit for purpose in a world where businesses are constantly evolving their service models, harnessing new technologies and changing the size of their customer base. Similarly, the lack of regulatory visibility over exempt sellers and embedded network operators and the absence of any monitoring regime means the exemption framework is also unlikely to be fit for purpose for evolving business models.

Where amendments to the existing authorisation and exemption frameworks are made, consideration is needed regarding what happens to arrangements for existing retailers (both authorised and exempted). Potentially they should be re-assessed under the new arrangements, or have obligations to meet in the form of specific conditions they must fulfill on an ongoing basis. There will likely be additional costs on the regulated population with changes to, or increased regulation, which may flow through to consumers. Therefore, this review will need to take a balanced approach taking into account both the additional costs from market intervention, and the benefits to consumers.

6.2.1 Authorisation framework

One option could be a tiered authorisation framework that allows the AER to specify what activities a business is allowed to undertake (such as where and what customers they can service), placing the onus on businesses to report any changes in circumstances. For

⁶³ Subsections 16(1) and 88(1) of the Retail Law.

example, different obligations may apply depending on the types of customers serviced and the potential for customer harm, or the types of energy products and services provided. Such a framework could include some or all the following characteristics:

- limits on the scope of an authorisation to the business model or a customer type at the time of the initial assessment – for example, this would mean retailers that do not supply residential customers would not have to submit a customer hardship policy
- certain compliance reporting obligations become applicable if changes in the organisational capacity of key functions or other changes in circumstances and/or certification occur
- the ability to impose conditions on authorised retailers at the time of authorisation
- the ability to impose ongoing obligations on authorised retailers to require them to undertake, or limit them from undertaking particular activities
- the ability to vary an existing authorisation, including any conditions that may be imposed
- requiring retailers to reapply for authorisation if certain trigger events occur, rather than it being granted in perpetuity.

This approach would align the NECF regulatory approach to similar arrangements in the Victorian framework, which provides opportunities for the ESCV to limit the scope of licences and/or place ongoing conditions on licensees. The ESCV can impose conditions that restrict the scope of a licence, including the maximum number of customers that can be supplied and the type of customers that can be supplied (such as excluding residential). The ESCV can also place ongoing compliance conditions to proactively identify potential risks to consumers (such as ongoing audits).

6.2.2 Exemption framework

The energy transition also presents a case for reforming the exemptions framework, particularly determining the scenarios that would permit the establishment of embedded networks. The exemption framework was established as a 'lighter' form of regulation to authorisations and was originally designed for specific types of business models that on sell energy to a defined group of customers at a site where the sale of energy is 'incidental' to the main business. There has since been significant growth in the embedded network industry, with the emergence of exempt sellers (and authorised retailers selling energy to customers in an embedded network) whose primary purpose is to sell energy for profit, similar to authorised retailers.

Potential reforms to the framework may need to consider:

- possibilities of limiting the scope of the exemption framework and the categories (deemed, registrable and individual categories) that determine appropriateness of exemptions
- whether boundaries are required to ensure the exemption framework is not used as an alternative form of regulation to authorisation
- the ability to introduce monitoring regimes to address the current lack of visibility over compliance by exempt sellers and embedded network operators

- in the case of individual exemptions, whether exemption holders should reapply for the exemption when there is material change to the original business model, rather than it being granted in perpetuity.

As part of considering potential reforms to the exemption framework, the AER will consider the package of legislative changes put forward by the AEMC in its 2019 report *Updating the Regulatory Frameworks for Embedded Networks*.⁶⁴ These changes include proposed amendments to the National Energy Retail Law and National Energy Retail Rules, and drafting instructions for changes to the National Electricity Law and National Electricity Rules. Through the changes, the AEMC intended to reduce the exemption framework so that most on selling and embedded network operations require a retailer authorisation or AEMO registration as an embedded network service provider.

Consultation questions

16. Do you agree with this review considering the need to expand the scope of the NECF where appropriate?
17. Do you consider the potential reform options outlined in section 6.2 will go some way to addressing current gaps in the frameworks in relation to future applications?
18. Would it be helpful to introduce limited authorisations and exemptions to apply to particular business models/business activities?
 - a. Are there any risks to this approach?
19. Would it be preferable to tailor retailer obligations to the specific set of proposed retailer activities? For example:
 - a. Should there be a core set of obligations on all retailers?
20. Should the AER be able to impose ongoing obligations on authorised retailers to require them to undertake, or limit them from undertaking, particular activities?
21. Should retailers be required to apply for a variation if changing their business model or customer type from what was approved?
22. Should the AER audit retailer activities and organisational capacity against arrangements set out in retailer authorisation applications, and if so, what should be the trigger and/or frequency?
23. As authorisation and individual exemptions are currently a point-in-time assessment, should retailers and exempt sellers be required to provide ongoing certification of their suitability to maintain their authorisation or exemption?
 - a. How can the AER provide ongoing certification of retailer and exempt seller suitability to maintain their authorisation or exemption?
 - b. What should this involve – for example audit, reapply under criteria, certificate of compliance?

⁶⁴ AEMC, [Updating the Regulatory Frameworks for Embedded Networks](#), AEMC, 2019.

24. If applying additional and/or ongoing obligations on authorised retailers, how can we limit the additional regulatory cost?
25. What, if any, regulatory approvals should be required if there is a change in control of an authorised retailer?
26. If there are changes to the framework that applies to new retailers or exempt sellers, what changes should be made to existing retailers or exempt sellers?
27. What are other possible solutions to ensure the authorisation and exemption frameworks remain effective within the context of new energy services?
28. How can we ensure the authorisation and exemption frameworks achieve effective regulation and balance the need for innovation and an appropriate level of protections for energy consumers?
 - a. How can we effectively regulate new business models?
29. If changes are made to the authorisation and exemption frameworks, what (if any) changes should be made to apply to existing retailers and exempt sellers/embedded networks? Should there be a trigger for changes to existing authorisations and exemptions and, if so, what should they be?

6.3 Other potential changes to the NECF

While changes to the authorisation and exemption frameworks will provide a more robust assessment mechanism for market entrants and increased regulatory oversight, broader changes to the NECF may also be required. This may include consideration of whether and how to regulate energy sales that are not currently captured by the NECF, and additional protections or changes to current protections to ensure the right obligations are in place to mitigate risks arising from new energy products and services identified through this review. We are interested in stakeholder views on how to regulate new business models and whether additional consumer protections should be introduced into the NECF.

Consultation questions

30. Are the existing protections under the NECF adequate to protect consumers from the potential risks posed by the transformation of the energy market and emergence of new energy products and services?
31. Should energy products and services not currently captured by the NECF be regulated and how?
32. Do we need new specific protections added to the NECF to protect against emerging harms, including harms that may be particular to emerging business models?

6.4 Other regulatory reform options

Beyond changes to the NECF, there are other potential solutions that may support consumers as the transition of the energy sector unfolds and the market becomes increasingly complex. This could include changes to the ACL, the introduction of industry

codes, and/or the introduction of principles-based or outcomes-based regulation, among other things. We would be interested in stakeholder views on whether these potential reform options warrant further consideration during this review, or if there are other reform options that should be considered to address risks from new energy products and services.

6.4.1 Principles-based regulation

Principles-based regulation relies on high-level or broad, general rules or principles that set standards to which regulated entities must adhere,⁶⁵ with the aim of achieving certain outcomes for consumers in a flexible manner. This represents a move away from traditional prescriptive regulation providing detailed sets of rules. Principles-based regulation can be implemented in tandem with prescriptive regulation but, rather than setting specific rules, the focus is on a set of defined outcomes for consumers that entities must achieve. This is because regulated entities are likely better placed to understand the actions and processes required to achieve a regulatory objective.⁶⁶

The ACL's misleading or deceptive conduct prohibition⁶⁷ is one such example of a principles-based obligation. This places onus on businesses to understand how their behaviour will affect a consumer's impression of a good or service, in particular to ensure their conduct does not create false or inaccurate depictions of a good or service. Another example is the Corporations Act, which contains a general obligation placing responsibility on financial services licensees to ensure they provide their services 'efficiently, honestly and fairly'.⁶⁸

We are also seeing principles-based regulation entering the energy sector, with the AER's Better Bills Guideline⁶⁹ due to come into effect in August 2022. This Guideline seeks to simplify energy bills to ensure clear and accessible information for small customers, reduce market complexity, and build customer confidence and engagement in the energy market. The Guideline incorporates a set of design principles for retailers to apply when preparing bills, with the aim of making it easy for residential and small business customers to understand billing information. The principles require retailers to prioritise customer comprehension by:

- using simple language
- making the bill easy to understand through appropriate layout and formatting
- making the most important information most prominent
- ordering the bill to make it easy to understand
- designing the bill with regard to consumer testing and feedback.

⁶⁵ Julia Black (LSE Research Online), [Principles based regulation: risks, challenges and opportunities](#), The London School of Economics and Political Science, 27 March 2007, p 3.

⁶⁶ Julia Black (LSE Research Online), [Principles based regulation: risks, challenges and opportunities](#), The London School of Economics and Political Science, 27 March 2007, p 5.

⁶⁷ For further information see ACCC's website on [Advertising and Selling Guide](#).

⁶⁸ See [section 912A of the Corporations Act 2001](#).

⁶⁹ AER, [Better Bills Guideline](#), AER, 2022.

Having a principles-based approach to the regulation of new energy services and products may be advantageous given this is an evolving market and it can be difficult to identify all types of conduct that could give rise to consumer harms. Any principles-based framework would require careful design because the principles could be seen as lacking in clarity and certainty. Whether a principles-based approach should be further considered will in part depend on the outcomes of the risk assessment and whether the harms and risks identified can be appropriately addressed through a principles-based framework.

Examples of potential principles-based regulatory changes include removing the electricity and gas carve-outs to the ACL, so the consumer guarantees protections and prohibitions against unfair contracts in the ACL apply. There may also be additional principles-based protections that are warranted in response to risks from new energy products and services.

6.4.2 Outcomes-based regulation

Another potential solution to address the risks and potential harms from new energy products and services is through outcomes-based regulation. Similar to principles-based regulation, outcomes-based regulation places a more direct focus on consumer outcomes and objectives.

ASIC has recently introduced 2 types of outcomes-based regulation frameworks for the financial services sector:

- design and distribution obligations,⁷⁰ which place greater accountability on financial product firms to appropriately design and distribute products in a way that ensures a certain outcome for consumers – this is detailed in Box 4
- product intervention power,⁷¹ which allows ASIC to make product intervention orders when a financial product or a credit product (or a class of such products) has resulted in, will result or is likely to result in significant consumer detriment – this is detailed further in Box 5.

Box 4 – ASIC design and distribution obligations

The implementation of design and distribution obligations (DDO) represents a shift in regulatory philosophy in the financial services sector, with the aim of placing greater accountability on financial product firms to ensure they design and distribute products in an appropriate manner. This is a move away from disclosure and regulation focused on the point of sale, towards regulation that commences at the point of product design and stretches through to distribution and advice to consumers. Key elements of the DDO include:

- supply-side intervention that places onus on financial product firms to take a consumer-centric approach to designing, marketing, and distributing products to the right consumers

⁷⁰ Australian Securities and Investments Commission (ASIC), [RG 274 Product design and distribution obligations](#), ASIC, 2020.

⁷¹ ASIC, [RG 272 Product intervention power](#), ASIC, 2020.

- product issuers will not be able to offer an existing product if an appropriate target market cannot be identified
- requires issuers and distributors to develop and maintain effective product governance arrangements across the life cycle of financial products to ensure consumers are receiving products consistent with their likely objectives, financial situation and needs
- product issuers are required to make a ‘target market determination’ (TMD) that provides information about the intended class of consumers, how the product will reach those consumers and how consumer outcomes will be monitored
- issuers must take reasonable steps to ensure distribution of the product is consistent with the TMD, review the TMD periodically, set information requirements for distributors to ensure there is sufficient information to review the TMD, and notify ASIC of any significant dealings not consistent with the TMD
- distributors must also take reasonable steps to result in distribution of the product being consistent with the TMD, keep records of distribution information, provide issuers with complaints information, and notify the issuer if they become aware of any significant dealings in the product not consistent with the TMD
- monitoring consumer outcomes and providing appropriate. ASIC intends that product governance arrangements must provide for an ongoing, iterative, and responsive design and distribution process.

Box 5 – ASIC product intervention power

The product intervention power (PIP) is an additional enforcement tool designed to provide greater power to ASIC to regulate in instances of significant consumer detriment. It allows ASIC to take action to prevent detriment, or further detriment, from occurring even where there has not been a breach of the law. Further, where the problem is industry-wide, the power can be used for a class of products instead of on a firm-by-firm basis.

The PIP applies to all financial and credit products under ASIC’s regulatory responsibility and may be used when:

- there is risk of significant consumer detriment
- there has been appropriate consultation
- alternative powers have been considered.

In the context of new energy services and products, an outcomes-based regulatory approach could be appealing given it is uncertain how the market for new energy services and products will evolve and what consumer harms may arise. It would provide more flexibility for regulators to respond as the market for new energy services and products evolves and to target harms as they arise. For example:

- regulation like ASIC’s design and distribution obligation for new energy services and products could support consumers in the energy transition by placing standards on businesses to ensure their offerings are being marketed and distributed to the

appropriate consumers. This approach could help prevent issues with how new energy products and services are marketed and sold to consumers by having providers consider how a new energy service or product should be marketed to consumers, especially if it is highly complex. However, such design and distribution obligations are substantial regulatory obligations and may create a barrier for new entrants, innovators and smaller energy providers if not designed properly

- a product intervention power would allow a regulatory body to be more agile and responsive in addressing conduct that emerges in relation to new energy services and products that causes, or could likely cause, harms to consumers. For the product intervention power to achieve its intended outcome, robust monitoring and reporting processes would be needed to allow emerging harms to be identified quickly. Therefore, any consideration of this regime would also need to consider the monitoring and reporting processes available to a regulator to identify emerging harms.

6.4.3 Industry codes

There may also be instances where the introduction of an industry code could play a role in mitigating risks to consumers. Industry codes, like principles-based regulation, focus on outcomes and provide a flexible approach to regulation. However, industry codes are often voluntary and a self-regulatory tool, meaning their effectiveness can be limited. Using industry codes should only be employed to mitigate certain risks that do not have the potential to cause severe consumer detriment.

We noted our position on where and when industry codes may be appropriate in our 2020 submission to the AEMC's consultation paper on the National Energy Retail Amendment (Bill Contents and Billing Requirements) Rule.⁷² Industry codes are most appropriate where industry has high visibility of a problem, there are a small number of market players, and products and services are homogenous. Code development is also most suited to 'technical' problems that are more likely to garner industry-wide agreement, rather than consumer issues.

Additionally, our submission drew on lessons from the telecommunications industry and highlighted that adopting a self-regulatory solution presents considerable risks for consumer outcomes. In particular:⁷³

- enforcement is problematic in self-regulatory markets. In large industries, breaches may not be easily detected and industry-wide compliance checks are resource-intensive and time-consuming
- industry self-regulation can favour the interests of larger players in the market. This can result in a framework that favours participants with greater market share and reduce the benefits of competition for consumers
- it can be difficult to reach agreement on contentious issues, which can result in protracted negotiations or ineffective compromises that fail to address detriment and remain problematic for those impacted (both consumer and industry participants)

⁷² AER, [AER Submission to the AEMC on Bill contents and billing requirements](#), AEMC, 2020.

⁷³ AER, [AER Submission to the AEMC on Bill contents and billing requirements](#), AEMC, 2020.

- engaging in self-regulation processes is very resource-intensive for consumer groups – often for very nominal consumer benefit.

Consultation questions

33. Are there potential reforms to the ACL that we should consider as part of our review?
34. Are there merits in implementing principles-based or outcomes-based regulation to support the energy sector's transition? What are the potential risks in taking this kind of approach to regulation?
35. Is there a role that additional industry codes could play in supporting consumers through the energy transition?
36. Are there other approaches that should be considered?

7 Glossary

Term	Definition
ACL	Australian Consumer Law
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASIC	Australian Securities and Investments Commission
ECA	Energy Consumers Australia
ESCV	Essential Services Commission Victoria
ESB	Energy Security Board
DER	Distributed energy resources – ‘behind the meter’ renewable energy resources and can include rooftop solar PV units, battery storage, thermal energy storage, electric vehicles/chargers, smart appliances and home energy management technologies.
DOE	Dynamic operating envelope
EaaS	Energy as a Service
EV	Electric vehicle
National Credit Act	National Credit Consumer Credit Protection Act
NECF	National Energy Customer Framework
NEM	National Electricity Market
NERL	National Electricity Retail Law
NER	National Electricity Rules
NERR	National Electricity Retail Rules
NETCC	New Energy Tech Consumer Code
RoLR	Retailer of Last Resort

8 Appendices

8.1 Appendix 1: consultation questions

1. Do you agree with the approach of using use cases/business models to identify the harms and risks of new energy services and products? Please explain why.
2. Do you consider the use cases/business models appropriate to assess the harms and risk of new energy services and products? In particular:
 - a. What, if any, changes should be made to the use cases/business models set out in this issues paper?
 - b. Are there any other use cases/business models we should consider? Please provide examples.
3. Do you consider any of the use cases/business models outlined to be essential in the same way as the traditional supply of energy arrangement is? If so, what is the appropriate level of consumer protections that should be applied to these products and services? Please explain.
4. How do you see new energy services and products interacting with the essential nature of the supply of energy?
 - a. Please specify which types of new energy services and products may substantially impact the supply of energy to a premises.
 - b. How do you think risks created by a new energy service or product on the supply of electricity should be addressed? Should they be treated the same as energy products and services considered essential? What factors should the AER take into account when considering what consumer measures are appropriate and proportionate?
5. Do you agree with the proposal to take into account the need to encourage the uptake of DER-based energy services and products when considering what measures are appropriate to address or mitigate potential harms and risks? Please explain why.
6. Do you consider that issues may arise if retailers continue to bear the burden of regulatory responsibilities set out in the NECF? Should this review consider where traditional regulatory responsibilities belong under the consumer protection framework to ensure it is appropriate for an energy market with both traditional and new energy services? Please give reasons for your views.
7. Are the current authorisation and exemption frameworks fit for purpose?
 - a. What risks do you see with the current frameworks?
 - b. What consumer protections do you think are missing from the frameworks?
8. Is the point-in-time assessment for retailer authorisations and individual exemptions fit for purpose? Why/why not?
9. How can we limit the risk of consumer harm when retailers or exempt sellers significantly expand/change business activities and capabilities after authorisation or exemption?
10. How can the AER better address serious misconduct of authorised retailers and exempt sellers?

11. Do you agree with our proposed approach to identifying the risks and harms that new energy products and services may pose to consumers? Please explain why.
12. Do you agree with the identified risks and harms to consumers? Please explain why. Are there other key risks and harms we should consider?
13. Do you agree with the proposed approach to use the consumer archetypes developed by the ECA when assessing the identified risks? Please explain why. What other key consumer types should we consider?
14. How do you think the conduct of energy businesses is likely to impact the identified risks around new energy products and services? Do you agree with the need to consider whether additional consumer protections for these services should be included in the NECF?
15. Have we adequately captured potential mitigants? Are there other mitigants we should consider?
16. Do you agree with this review considering the need to expand the scope of the NECF where appropriate?
17. Do you consider the potential reform options outlined in section 6.2 will go some way to addressing current gaps in the frameworks in relation to future applications?
18. Would it be helpful to introduce limited authorisations and exemptions to apply to particular business models/business activities?
 - a. Are there any risks to this approach?
19. Would it be preferable to tailor retailer obligations to the specific set of proposed retailer activities? For example:
 - a. Should there be a core set of obligations on all retailers?
20. Should the AER be able to impose ongoing obligations on authorised retailers to require them to undertake, or limit them from undertaking, particular activities?
21. Should retailers be required to apply for a variation if changing their business model or customer type from what was approved?
22. Should the AER audit retailer activities and organisational capacity against arrangements set out in retailer authorisation applications, and if so, what should be the trigger and/or frequency?
23. As authorisation and individual exemptions are currently a point-in-time assessment, should retailers and exempt sellers be required to provide ongoing certification of their suitability to maintain their authorisation or exemption?
 - a. How can the AER provide ongoing certification of retailer and exempt seller suitability to maintain their authorisation or exemption?
 - b. What should this involve – for example audit, reapply under criteria, certificate of compliance?
24. If applying additional and/or ongoing obligations on authorised retailers, how can we limit the additional regulatory cost?

25. What, if any, regulatory approvals should be required if there is a change in control of an authorised retailer?
26. If there are changes to the framework that applies to new retailers or exempt sellers, what changes should be made to existing retailers or exempt sellers?
27. What are other possible solutions to ensure the authorisation and exemption frameworks remain effective within the context of new energy services?
28. How can we ensure the authorisation and exemption frameworks achieve effective regulation and balance the need for innovation and an appropriate level of protections for energy consumers?
 - a. How can we effectively regulate new business models?
29. If changes are made to the authorisation and exemption frameworks, what (if any) changes should be made to apply to existing retailers and exempt sellers/embedded networks? Should there be a trigger for changes to existing authorisations and exemptions and, if so, what should they be?
30. Are the existing protections under the NECF adequate to protect consumers from the potential risks posed by the transformation of the energy market and emergence of new energy products and services?
31. Should energy products and services not currently captured by the NECF be regulated and how?
32. Do we need new specific protections added to the NECF to protect against emerging harms, including harms that may be particular to emerging business models?
33. Are there potential reforms to the ACL that we should consider as part of our review?
34. Are there merits in implementing principles-based or outcomes-based regulation to support the energy sector's transition? What are the potential risks in taking this kind of approach to regulation?
35. Is there a role that additional industry codes could play in supporting consumers through the energy transition?
36. Are there other approaches that should be considered?

8.2 Appendix 2: ESB Post-2025 Market Design project reform pathways

The ESB's 4 reform pathways are:

- resource adequacy mechanisms – to provide the right incentives to drive investment in an efficient mix of resources (that is, variable renewables, storage, and flexible and firm generation) to minimise costs and maintain reliability
- essential system services and ahead scheduling – to ensure that the essential services required (frequency, control, operating reserves, inertia, and system strength) are available to maintain system security

- integration of distributed energy resources and flexible demand – to deliver benefits to customers through the integration of rooftop solar, battery storage, smart appliances, EVs and other distributed energy resources into the system in an efficient way
- transmission and access – to ensure timely transmission investment, better use of capacity on the network to lower costs for consumers and reduce uncertainty for investors by making future patterns of congestion more predictable.

8.3 Appendix 3: consumer risk assessment tool

The consumer risk assessment tool was developed by the ESB in consultation with customer advocates and key industry stakeholders. It provides a set of consumer protection principles to help market bodies explicitly consider consumer benefits and risks as part of, and alongside, design and development of market reforms. The risk-based approach also identifies where new consumer protections or other measures may be needed, reflecting the potential of a new arrangement, product, or service to cause harm.

The consumer risk assessment tool was published in Part C⁷⁴ of the ESB’s final advice provided to energy ministers in July 2021 and is set out below.

<p>Context</p> <p>The foundation of the National Electricity Market’s energy consumer protections framework is the Australian Consumer Law (ACL), National Energy Customer Framework (NECF, set out primarily in the National Energy Retail Law and Rules) and Victorian Energy Retail Code (Victorian Retail Code). As more consumers move to distributed energy resources (DER), and digitalisation and better data are increasing control and communication options, we need to consider what consumer protections and other measures are needed to ensure customers do not bear unreasonable risks. The market bodies will use this tool to consider consumer risks and benefits in policy development, including rule change requests (as part of considering the National Energy Retail Objective), reviews of guidelines and processes that would impact consumers. It will also be used through the maturity plan releases to help ensure solutions identified appropriately consider risks and benefits.</p>		
<p>Communicate and consult</p>	<p>Benefits assessment</p> <ul style="list-style-type: none"> • How would the change, or new product/service deliver benefits to different types of consumers? Are there individual, customer-side or system-wide benefits? How do consumers with DER benefit compared to those without? What are the impacts on vulnerable and disengaged customers? • How are these benefits likely to change as the future energy system changes? Will these benefits only be realised in the future? • How will consumers find out about the benefits? • What evidence is there that consumers want this? And whether it solves current problems? <p>Map out how it achieves the following consumer protection principles:</p> <ul style="list-style-type: none"> • Access to energy: Recognising that energy is an essential service, customers should have access to at least one source of electricity. • Switching providers: Customers should be able to change retail providers when they choose. • Access to information: Customers should have access to information that is sufficient, accurate, timely and minimises complexity and confusion to allow them to make informed decisions. 	<p>Monitor and review</p>

⁷⁴ ESB, [Post-2025 Market Design Final advice to Energy Ministers Part C – Appendix](#), ESB, 2021, p 26.

	<ul style="list-style-type: none"> • Vulnerable consumers: The needs and circumstances of vulnerable consumers will need to be explicitly considered. • Dispute resolution: Customers should have easy access to no cost dispute resolution mechanisms when things go wrong. 	
	<p>Identify risks</p> <ul style="list-style-type: none"> • What are the barriers to consumers receiving the benefits? • What risks or issues could arise for consumers considering the multiple aspects of the consumer experience, situations and the diverse range of customers? • What consequences could arise if the risk is not addressed or the barrier is not removed? 	
	<p>Evaluate</p> <p>Evaluate the magnitude of the risk or issue:</p> <ul style="list-style-type: none"> • Consider whether it is a significant risk of harm or an inconvenience. • Rank the risks based on severity of consequences and the likelihood of it occurring. <p>Evaluate how the market bodies can address the risk or issue:</p> <ul style="list-style-type: none"> • Can they act? Is it within their regulatory powers to address? For example, can it be addressed through changes to the National Energy Retail Rules or to the retailer authorisation/exemption process? • Can they influence? Can market bodies influence actions by jurisdictions or the ACCC to address the risk? • Should they monitor? Is the risk beyond the scope of energy policy or a risk that is not yet imminent and would benefit from ongoing monitoring? 	
	<p>Treat risks</p> <ul style="list-style-type: none"> • What are the mitigation options? Are the options proportional to the impacts? • Which option is best considering the consumer protections principles in combination with the National Energy Retail Objective? • Re-analyse risk after selecting treatment to determine if there are any residual risks that require action. • Who is responsible for progressing the risk mitigation? • How will it be done and by when? 	