AEMC

REVIEW

Australian Energy Market Commission

ISSUES PAPER 1

CONSUMER PROTECTIONS IN AN EVOLVING MARKET: NEW ENERGY PRODUCTS AND SERVICES - 2020 RETAIL ENERGY COMPETITION REVIEW

12 DECEMBER 2019

INQUIRIES

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ABOUT THE AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

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1 SUMMARY

1 Changes in technology, enabled by digitalisation, are changing electricity markets. Digitalisation is facilitating greater and different forms of consumer engagement and participation in the energy market. It is also incentivising a growth and sophistication of third party businesses to provide new energy products and services. These changes raise questions about the coverage, form and nature of energy specific consumer protections.

2 In the *2019 Retail energy competition review* final report the AEMC (the Commission) mapped the consumer protections that energy consumers in the NEM currently receive under the National Energy Customer Framework (NECF) and the Australian Consumer Law (ACL). This was the first step in assessing whether energy consumers are receiving appropriate protections and barriers to innovation are minimised. The Commission concluded that the NECF generally complemented the ACL well to provide energy consumer protections. However, the Commission noted weaknesses in two areas:

1. The combination of the development of a range of new, non-traditional energy related products and services with the specific application of the NECF to the sale of energy, means there is a need to assess if (and what) consumer protections should apply to these new services and products.
2. The information related provisions in the NECF are prescriptive and may prevent innovation, particularly in relation to digital technologies. Furthermore, in recent years there have been progressive one off additions to the information provisions.

3 The Commission is progressing both of these areas as part of the 2020 Retail energy competition review. This second stage will have two issues papers, the first issues paper (Issues Paper-1), which is this paper, is focused on new energy products and services and the second (Issues Paper-2), is focused on the traditional sale of energy.

4 The energy market has been evolving rapidly and new technologies and digitalisation means the boundary between the traditional sale of energy and new products and services is becoming increasingly blurred. Understanding these boundaries and clearly identifying the purpose of energy specific consumer protections is key to keep pace in this changing market. This paper discusses how the regulatory issues related to new energy products and services could raise the need for potential changes to the application and nature of energy specific consumer protections.

5 The purpose of this paper is to discuss these principles, their application and analyse how the objectives of a consumer framework are addressed through the three regulatory frameworks available to energy consumers (ACL, NECF and voluntary frameworks).[1] This issues paper discusses how these frameworks complement each other to provide an overarching consumer framework and seeks stakeholder views to identify potential areas for improvement.

6 The Commission welcomes submissions on this issues paper by 13 February 2020.

1 Voluntary codes of conducts and programs.

BOX 1: SUMMARY OF QUESTIONS FOR CONSULTATION

1. Market developments and consumer protections: Are there any other market developments the Commission should consider when assessing consumer protections for new energy products and services?

2. New business models and innovation in the market: Are there other business models the Commission should consider in its analysis of new energy products and services?

3. Other key services and products to consider: Are there other energy products and services the Commission should consider in its analysis of the new energy products and services?

4. Efficiency of revenue streams: Which regulatory provisions may be preventing value creation through the adoption of new technology?

5. The supply of energy is an essential service: What are the elements that define the supply of energy as an essential service?

6. Changes in the nature of energy service: Has the essential nature of the sale of energy changed with the market's evolution?

7. Regulatory implications: If the answer to Question 6 is yes, what are the implications for the NECF as the energy specific consumer framework?

8. New energy products and services: For the supply of new energy products and services, is there any risk of consumer detriment that needs to be considered to have additional consumer protections (industry-specific regulation) beyond the voluntary framework? Please explain.

9. Application of energy consumer protections: Which elements of the energy market are useful to define the scope of the energy specific consumer framework?

10. Objectives of an overarching consumer framework: Do you agree with the objectives identified by the Productivity Commission? Are there other objectives the AEMC should consider?

11. Integrating the energy consumer framework: How can the three consumer frameworks be better integrated to make it easier for energy customers and businesses in terms of information requirements? Please give specific examples.

12. Potential risks to consider: Are there additional risks to consumers that should be considered and are not already addressed by the NECF, ACL and the voluntary codes?

13. Vulnerable consumer: For new energy services and products, what characteristics of a vulnerable consumer should be considered under the energy-specific regulatory framework different to any other industry? Why?

14. Consumer protections for vulnerable consumers: For new energy services and products, are there additional risks to vulnerable consumers that should be considered and

are not already addressed by the ACL and the voluntary codes?

15. Policy risks: What are the risks of extending the obligation of having policies that identify and protect consumers under vulnerable circumstances to new energy services and products suppliers?

16. Other characteristics for consideration: Do new energy products and services have specific characteristics that require additional protections to prevent unfair practices or conduct against good faith that should go beyond the ACL? Please explain.

17. Additional redress mechanisms: Does the nature of the market (new energy services and products) require an industry specific system/scheme to handle consumer complaints? Please explain.

18. Effects of different redress mechanisms: What are the risks of having different redress mechanisms under different consumer frameworks? Please explain.

19. Redress mechanisms beyond the ACL: Is there a better way to provide access to effective and strong redress mechanisms for consumers of new energy products and services?

20. Enforcement of the energy consumer framework: How could the enforcement tools and actions under the voluntary framework be better integrated with the ACL and the NECF? Please explain.

21. Principles: Are there any other principles the Commission should consider?

1 INTRODUCTION

1.1 Scope

On 28 June 2019, the Australian Energy Market Commission (AEMC or Commission) published the *2019 Retail energy competition review* final report. In the report, we mapped the relevant consumer protections for energy consumers in the national electricity market (NEM) under the National Energy Consumer Framework (NECF) and the Australian Consumer Law (ACL). This was the first step in assessing whether energy consumers are receiving appropriate protections and whether barriers to innovation are minimised. This mapping exercise highlighted that the two frameworks largely complement each other to maintain consumer protections in the provision of energy. However, the Commission noted the need for further analysis in two areas:

1. The combination of the development of a range of new, non-traditional energy related products and services with the specific application of the NECF to the sale of energy, means there is a need to assess if (and what) consumer protections should apply to these new products and services.
2. The information related provisions in the NECF are prescriptive and may prevent innovation, particularly in relation to digital technologies. Furthermore, in recent years there have been progressive one off additions to the information provisions.

The Commission is progressing both of these areas as part of the 2020 Retail energy competition review. This second stage will have two issues papers, the first issues paper (Issues Paper-1), which is this paper, is focused on new energy products and services and the second (Issues Paper-2), is focused on the traditional sale of energy.

This issues paper is focused on new energy products and services. The boundaries between the traditional sale of energy and new energy products and services is becoming increasingly blurred. Understanding these boundaries and clearly identifying the purpose of energy specific consumer protections is key to keep pace in this changing market. The Commission will discuss how the regulatory issues related to new energy products and services could raise the need for potential changes to the application of energy specific consumer protections.

There is other legislation relevant to the energy market that is out of scope of this review. Network regulation, price regulation and jurisdictional consumer safety regulation in relation to gas and electrical products and services are not included at this stage of the review.

1.1.1 Structure of this issues paper

This paper:

- sets out background information about the evolving energy market
- outlines potential regulatory issues in the light of new energy services and products and possible approaches to assess consumer protections for new energy products and services.

1.2 Consultation process and next steps

This issues paper is designed to facilitate public consultation. The Commission welcomes submissions on this issues paper by 13 February 2020 via the AEMC's website, www.aemc.gov.au, using the 'lodge a submission' function and selecting the project reference code RPR0013.

The Commission also welcomes interested stakeholders to contact us if they would like to meet with us to discuss this issues paper or related issues. All enquiries on this project should be addressed to Stephanie Flechas on (02) 8296 0640 or stephanie.flechas@aemc.gov.au.

1.2.1 Project time frame and next steps

Table 1.1: **Project timetable**

DATE	PROJECT MILESTONE
28/06/2019	Mapping consumer protections, 2019 Retail energy competition review, Final report
12/12/2019	Issues papers — Consumer protections in an evolving energy market: • **New energy products and services** • Traditional sale of energy
6-7/02/2020	Workshops in Sydney
13/02/2020	Submissions due date
06/2020	Consumer protection in an evolving energy market, 2020 Retail energy competition review, Final Report

2 BACKGROUND

This chapter summarises:

- how the energy market is evolving and the drivers of these changes
- the new market participants
- the new market products and services available to energy consumers
- new revenue structures being accessed by consumers and market participants.

2.1 The evolving energy market

A substantial transition is under way across the energy industry. The generation mix is increasingly made up of a larger number of small resources (solar PV and batteries) which are geographically dispersed, networks companies are facing more dynamic and two-way network flows and the nature of the consumer is fundamentally changing. The power system and energy market are increasingly underpinned by digital technologies that make it easier to choose and control how, when and where power is delivered and used.

The energy market which was once dominated by vertically integrated monopolies, then by major players, is now changing to be a market with new and innovative retailers, alternative energy sellers and new businesses providing services to help consumers choose and manage their energy supply. More energy products and services are available and consumers are increasingly adopting small-scale solar and energy storage technologies. With new technologies and the digitalisation of the market consumers have real opportunities to better manage their energy use.

Consumers are part of this evolution and technology is a tool that should empower their energy management (consumption, generation, storage). There are multiple drivers leading to increased interest and participation of customers in the energy market. A number of these drivers are described below.

2.1.1 Increases in retail prices

Over the past 10 years, small consumers have experienced significant increases in the cost of electricity. Retail electricity prices increased 56 per cent in real terms between 2007-08 and 2017-18 compared with real wages growth of around seven per cent.[2] These increases in retail costs have resulted in increased consumer engagement and have provided consumers with greater incentives to look for opportunities to mitigate these costs.

2.1.2 Smart meter roll-out

Advanced 'smart' meters are being rolled across the NEM. First through Victoria's roll-out, then through the *Power of Choice* reforms for all other NEM jurisdictions. As of 1 July 2019 over 800,000 customers outside of Victoria have an advanced meter, enabling customers to access up-to-date information to make energy choices. These technologies enable more

2 ACCC, *Retail electricity pricing enquiry*, final report, June 2018, p. v.

opportunities for retailers to tailor energy offers to customers needs and for other market players to support consumers to better manage their consumption, production and storage.

2.1.3 Changes in tariff structures

Consumers are able to access increasingly dynamic retail tariffs. These tariffs can vary from time of use tariffs to direct wholesale electricity market spot price pass through contracts. Tariffs can also more accurately reflect the cost of providing network services, including peak demand charges. These new tariff structures provide consumers with incentives to change their consumption or to utilise DER in response to price signals, which is likely to reduce total system costs in the long run.

2.1.4 Other technological developments

New generation in the NEM is increasingly 'behind-the-meter' (BTM), in particular rooftop solar PV, which is now installed on around 20 per cent of houses in Australia (see section 2.3.2). Progressively, these systems are being installed with battery storage. Where demand side participation may have previously involved manual intervention from, or on behalf of individual consumers, advances in technology are now providing consumers with the opportunity to participate with little to no tangible impact on their well-being. Currently, specific loads such as electric hot water, pool pumps and air conditioners are controlled remotely to reduce costs while managing the impact on consumers.

These trends are accelerating through the entry of non-traditional energy players or even non-energy players who offer home energy management services.[3] Previously, DER were inaccessible to most consumers due to high upfront costs. These costs are falling. As a result, the proliferation of 'smart devices', coupled with improvements in communications technologies, means that the capability to respond to price signals should increase.

In a high DER future, the electricity system (especially at the distribution level) is likely to have multi-directional flows and become a platform to support different services. The future electricity system and the regulatory framework need to be able to support these and potentially many other varieties of use.[4]

2.1.5 Government programs

Most jurisdictions in the NEM have established or are developing programs to incentivise the uptake of technology to facilitate demand side participation. These programs involve the installation of smart meters, rooftop solar panels and battery storage systems. These changes are not only transforming the traditional roles of customers but are enabling the entry of more market participants and opening new revenue streams in the market.

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3 Samsung is marketing a home energy management service. For more information, see: https://www.samsungsds.com/global/en/solutions/off/hms/SamsungSmartHome.html

4 AEMC, *Electricity network economic regulatory framework review 2019*, final report.

2.2 The new market participants

2.2.1 The new consumer

The traditional role of the energy consumer in the NEM is changing. Small customers, while still buying and consuming electricity from the grid, are also generating electricity for their own consumption and/or feeding it back into the grid. Competition is emerging among retailers to provide more targeted retail offers to accommodate to these changes in consumer preferences. For example, retailers are providing feed-in tariffs (in addition to regulated premium feed-in tariffs)[5] which provide greater opportunities for customers to reduce their energy bills.

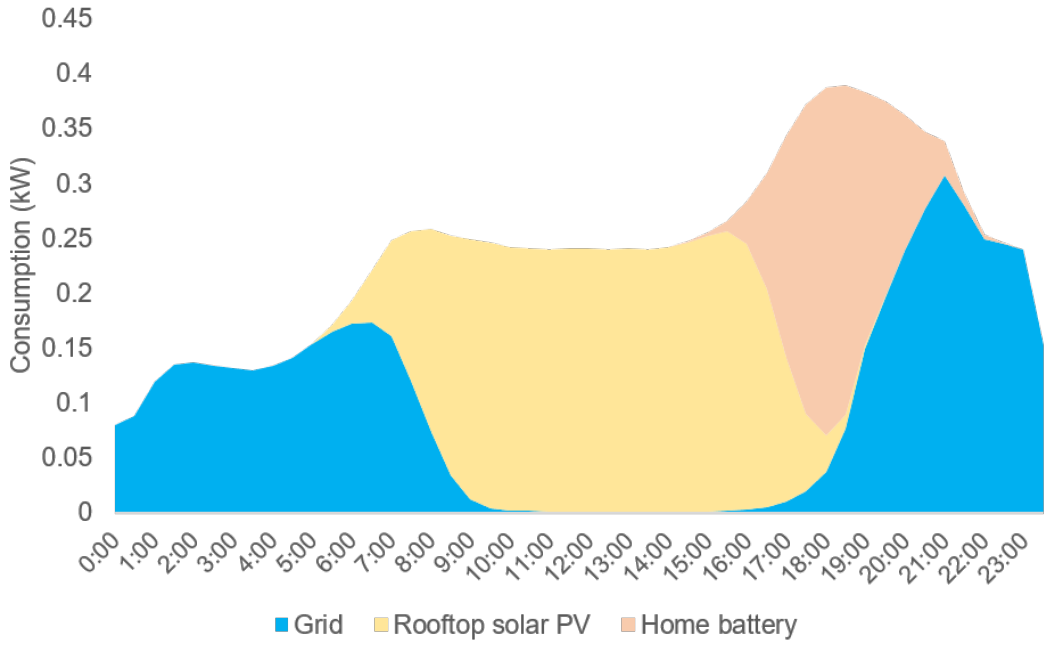
Consumers have more sources of energy, tools and information to play a more active role in the energy market. This market evolution is providing consumers with a range of options in consumption, generation and potentially in storage. Consumer's interests will become more differentiated and time-varying, and potentially production, rather than consumption, oriented.[6]

For example, the demand for electricity from consumers with solar PV and batteries is changing. Before these new technologies existed, all of consumers' demand for electricity was met from the grid. Currently, for consumers with solar PV and batteries in the early hours of the morning the consumer depends entirely on electricity from the grid. During sunlight hours they rely on solar generation, and excess generation is used to charge their battery and export it to the grid. In the evening, the consumer's demand is met by a combination of the stored electricity from their battery and electricity from the grid. Figure 2.1 provides an example of these changes.

5 A feed in tariff (FiT) is a rate paid to customers for electricity, typically generated by solar PV, that is fed into the distribution network.

6 Meade, Richard, *Preparing electricity regulation for disruptive technologies, business models and players - in the Long-term Interests of consumers*, White paper commissioned by the Electricity retailer's Association of New Zealand, August 2018.

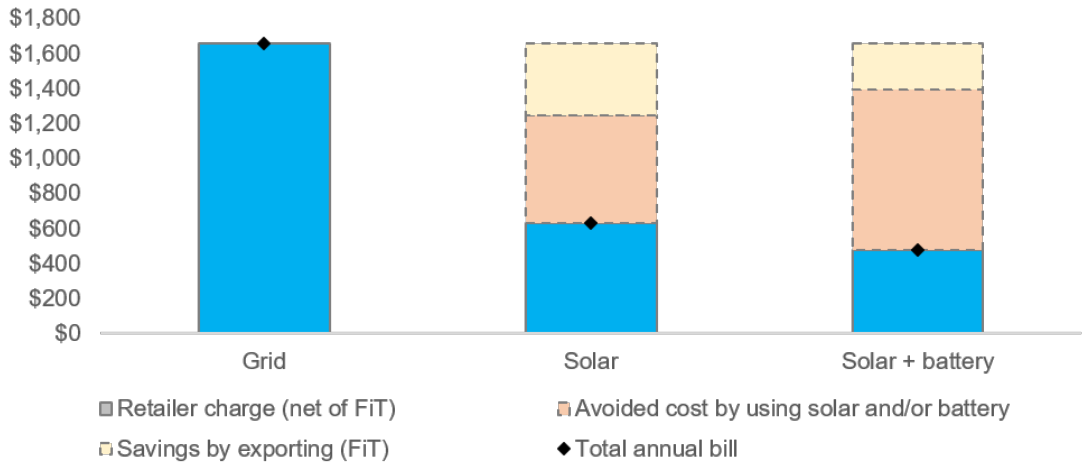
Figure 2.1: Change in demand



Source: AEMC simulation.
Note: This is a stylised example based on hypothetical data.

These changes allow consumers with DER to reduce their bills through offsetting their electricity consumption from the grid and selling excess generation back into the grid to receive a feed-in tariff (FiT). For example, in the stylised example below, a consumer with solar PV can reduce their bill from $1655 per year to $630 per year, with savings through the avoided retail tariff and FiT on electricity fed back into the grid. Consumers with solar PV and batteries could even reduce their annual bill to $477. These additional savings occur because the consumer is able to 'shift' some of their solar generation to meet their evening consumption, in effect giving up some of their FiT to offset their consumption (which is typically at a higher rate). Figure 2.2 illustrates the potential savings of a specific consumption profile. The Commission notes this would change on the basis of the consumer's profile, energy management and size of their solar PV and batteries.

Figure 2.2: Savings for consumers



Source: AEMC simulation.

As a result of the drivers mentioned in section 2.1, a wide variety of consumers are taking steps to take greater ownership over their energy usage and energy costs. Due in part to these drivers, there are a number of avenues for small consumers to participate under the current arrangements and these are discussed below.

Consumers can install distributed energy resources (DER)

A growing number of types of DER are available to consumers to install BTM. Over the past 10 years the cost of rooftop PV has fallen substantially and coupled with government led support programs, this had led to significant rooftop PV growth. Small consumers are able to access more sophisticated DER, including batteries, electric vehicles (EVs) and home energy management devices. These DER assist consumers in managing costs and also provide opportunities to participate in demand response programs with retailers, distributors and third parties. For example, aggregated batteries are allowing small customers to participate in providing FCAS. These programs allow customers to reduce their energy bills and access new revenue streams.

Consumers can participate in demand response programs indirectly

Consumers can participate in demand response through retailers, aggregators and distributors. Small customers can engage in programs set up by intermediaries to provide an aggregated response. This response can be in relation to the wholesale market price, to relieve network congestion, provide a power system reserve or to help maintain power system frequency within acceptable levels.

Consumers can respond directly to price signals from the wholesale market or distributors

Small consumers can also respond to price signals from either the wholesale market or from more dynamic network tariffs. This relies on the small consumer's retailer passing through

these price signals. These changes provide opportunities for small consumers to benefit financially but may also expose them to greater levels of price volatility and financial risk. Therefore, it is important to analyse if there are appropriate consumer protections available.

> QUESTION 1: MARKET DEVELOPMENTS AND CONSUMER PROTECTIONS
>
> Are there any other key market developments the Commission should consider when assessing consumer protections for new energy products and services?

2.2.2 The new energy providers

The evolution of technology and the market is not only changing the role of consumers but incentivising a growth and sophistication of third party businesses to provide energy management services. The energy retail model is changing with new market entrants providing innovative offerings to consumers to complement their supply of energy, making it easier for them to make the most of these new technologies. As behind-the-meter battery storage and EVs become more prominent, there may also be different providers competing to provide aggregator services for energy[7], system services and network support.

The one-way relationship between retailers and customers is changing and the traditional market model is likely to be less prevalent in the future. This two-way relationship where customers are not simply consuming energy has enabled new intermediaries/participants to enter the traditional market model and the retailer is no longer the only market player that interacts with customers directly. With digitalisation, new retailers and innovative new businesses are emerging to enable customers to access greater benefits through tracking and managing their energy usage in response to real-time market signals.

The following are examples of new business models and innovations in services provided to consumers:

- The Commission's *2019 Retail competition review* highlighted a number of developments in the retail space, particularly in relation to the uptake of BTM batteries. The Commission highlighted the emergence of a new type of service provider, a battery service provider (BSP). This BSP controls BTM batteries and aggregates battery storage units, and potentially other types of DER, into a virtual power plant (VPP).[8] One example of this is when a retailer and BSP coordinate to develop joint product offering for customers. Typically, this involves the BSP selling, installing and operating a battery for the customer. The retailer then makes specific retail market offer(s) available on the condition the customer is also contracted with the BSP. Examples of this model include Reposit, Powershop, Sonnen and Energy Locals.
- The Australian Energy Market Operator's (AEMO's) VPP demonstrations: AEMO is collaborating with the Australian Renewable Energy Agency (ARENA), the AEMC, the

7 Currently, there are 20 registered Small generation aggregators (SGAs). The SGA is a registered participant role within the NEM that supplies electricity from one or more generating units to the NEM and is financially responsible for the electricity provided.

8 AEMC, 2019 Retail energy competition review, *final report*, chapter 8.

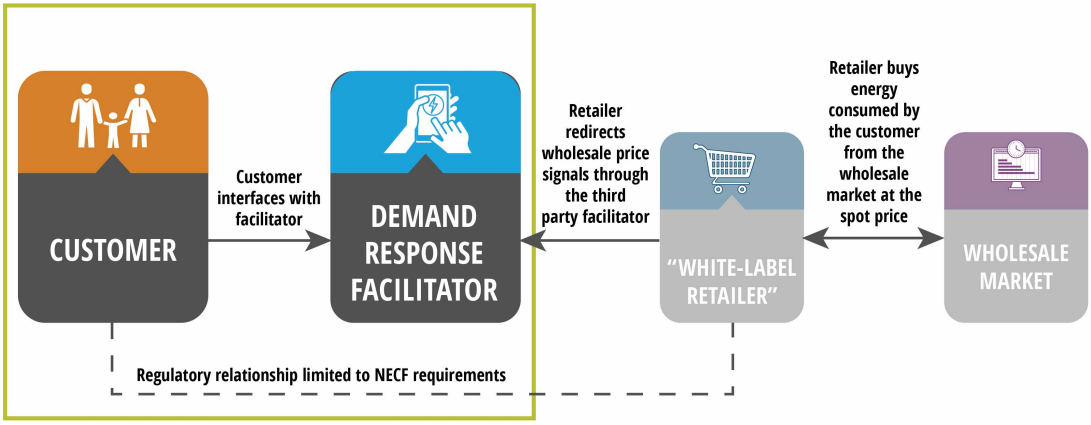
Australian Energy Regulator (AER) and members of the Distributed Energy Integration Program (DEIP) to establish VPP demonstrations. AEMO is establishing a framework to allow VPPs to demonstrate their capability to deliver services in energy and Frequency Control Ancillary Services (FCAS) markets. By trialling VPP operations while their aggregated fleets remain of a small scale (less than 5-10 MW per VPP operator), the VPP demonstrations aim to inform the effective integration of VPPs into the NEM as they reach a larger scale. These demonstrations will include aggregated small consumers.

- Aggregated small customers participating in FCAS: Reposit and ActewAGL have partnered to provide FCAS by activating household batteries to respond to power system frequency disturbances.
- Aggregated small customers participating in the reliability and emergency reserve trader. In May 2017, ARENA and AEMO partnered to trial demand response services using the Reliability and Emergency Trader (RERT) (i.e. emergency demand response) arrangements in the National Electricity Rules (NER).[9] The trial will run for three years from summer 2017/18 to summer 2019/20. This trial includes aggregations of small consumers providing emergency reserve through AGL, EnergyAustralia and Powershop.
- Embedded networks: embedded networks are private electricity networks – that is, they are owned and operated by parties that have been exempted from the requirement to register with AEMO – which serve multiple customers and are connected to the interconnected electricity system. Generally, the embedded network provider purchases electricity at the parent connection point and on-sells it to customers at child connection points within the embedded network. On-selling entities must hold a retailer authorisation and comply with the NECF, or be exempted by the AER from having to hold a retailer authorisation. Please see appendix b.3 for further details.
- Stand-alone power systems: a stand-alone power system (SAPS) is an electricity supply arrangement that is not physically connected to the national grid. The Commission uses the term to encompass both microgrids, which supply electricity to multiple customers, and individual power systems, which relate only to single customers. Please see appendix b.2 for further details.
- Solar power purchase agreements: a SPPA is a financial arrangement in which a business provides, installs and maintains, at no initial cost, a solar panel system to a customer and in exchange, the customer buys the energy provided by the solar panels for an agreed price (usually below that which would be charged by an electricity retailer) for an agreed period. Any electricity that is not used is exported into the local electricity network and the customer will usually get the benefit of any feed-in tariff. Please see appendix b.1 for further details.
- White label retailing: a third party will engage with a 'white-label' retailer (authorised retailer) and with the consumer. The white-label retailer offers their licence and a subset of its retail functions to this third party (e.g. demand response facilitator). In the example of wholesale demand response, the third-party is leveraging the retail licence and some

9 The RERT is a function conferred on AEMO under the NER. Under the RERT, AEMO can enter into reserve contracts so it can call upon resources not available to the market if needed to ensure reliability of supply meets the reliability standard, and to maintain power system security.

of the retail services from the authorised retailer to engage with consumers and encourage them to respond to wholesale prices. This model is set out in Figure 2.3.

Figure 2.3: White-label retailing



Source: AEMC.

This model has been developed primarily in relation to residential battery business models. Some examples include:

- Tesla VPP in South Australia: this VPP is being run in partnership with Energy Locals, where Energy Locals is the financially responsible market participant (FRMP) for the residences with Tesla batteries installed. Energy Locals will also interact with AEMO's settlement systems and meet the prudential requirements for participation in the wholesale market. However, Tesla has a significant role in interfacing with the consumer.
- Sonnen, a battery company, offers retail energy contracts where customers pay a fixed monthly fee. Sonnen then uses residential batteries to manage wholesale market costs. Energy Locals is the registered retailer in this arrangement. In this model, Energy Locals does not have any direct involvement with consumers.

This white-label retailer offers a number of retail services through its retail licence enabling other service providers to directly engage with consumers. These new participants advertise their business model as a white-labelled 'retail in a box' and offer to third parties the option to be an energy retailer without the associated complexity.[10] Through partnering with this white-label retailer, third parties are able to elect which retail services they will procure from the white-label retailer, and which services they can provide themselves.

10 Energy Locals offers, a retail licence, pricing management, wholesale energy purchasing, risk management, billing, compliance, customer service.

QUESTION 2: NEW BUSINESS MODELS AND INNOVATION IN THE MARKET

Are there other business models the Commission should consider in its analysis of new energy products and services?

2.3 New market products and services

2.3.1 Existing technologies

The idea of shifting load to unlock value dates back well before the beginning of the NEM in 1998. Distribution networks have operated various forms of load control since the 1950s. At present, household hot water systems and pool pumps can be controlled by networks. Distribution network service providers (DNSPs) control these systems/devices by setting their operation time. The network typically operates these devices by switching them to operate during off-peak hours (i.e. overnight) to reduce demand of the grid during peak times.

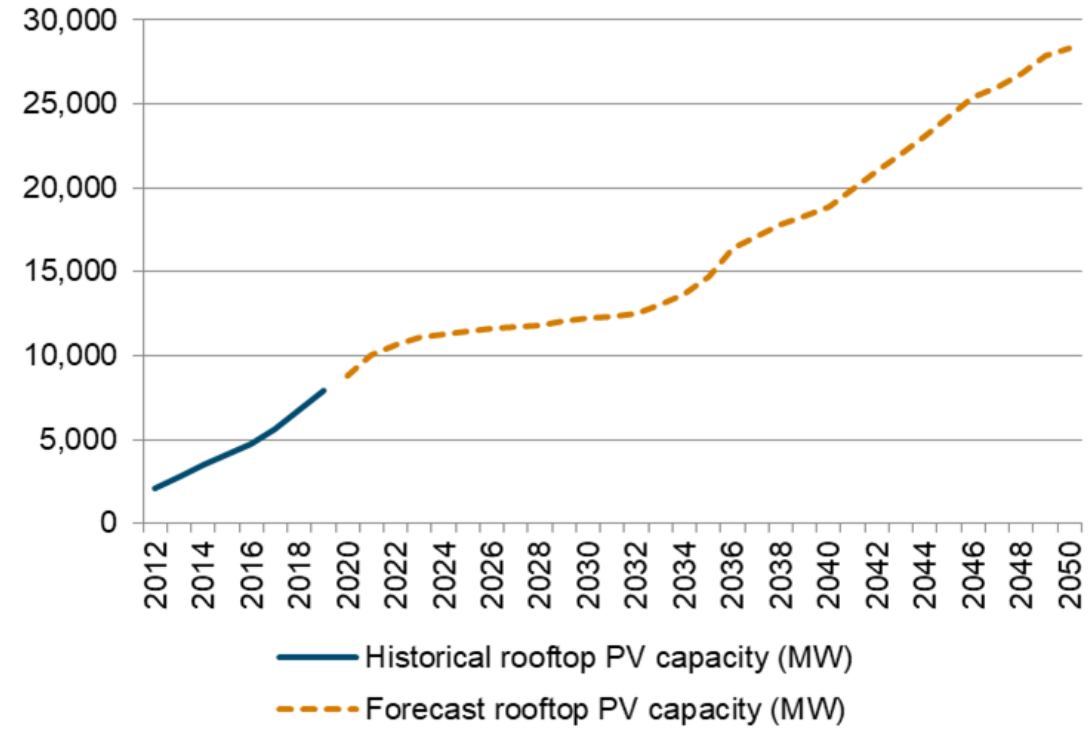
More recently, DNSPs are offering rebates to consumers who install air conditioners that can be controlled remotely to manage peak demand. Electricity networks are reaching consumers directly to offer new solutions of peak demand management.[11] This is a new mechanism for consumers to be able to respond to high prices.

2.3.2 Solar PV and battery storage uptake

One of the early signs of the uptake of DER was the fast growth in small scale solar installations. Figure 2.4 shows the uptake of solar PV since the Small-scale Renewable Energy Scheme (SRES) was introduced in 2001. Government subsidies and premium feed-in tariffs, combined with decreases in solar PV costs, has led Australian households to install over two million solar PV systems with an average capacity of 6.9 kW as of July 2019. This represents around 20 per cent of households in Australia. Uptake has been particularly strong in Queensland with over 600,000 solar installations under the SRES, representing around one in three Queensland households.

11 For more information on this program see Ergon's website: https://www.ergon.com.au/network/manage-your-energy/incentives/peaksmart-air-conditioning

Figure 2.4: Cumulative and forecast rooftop solar PV capacity in the NEM (MW)

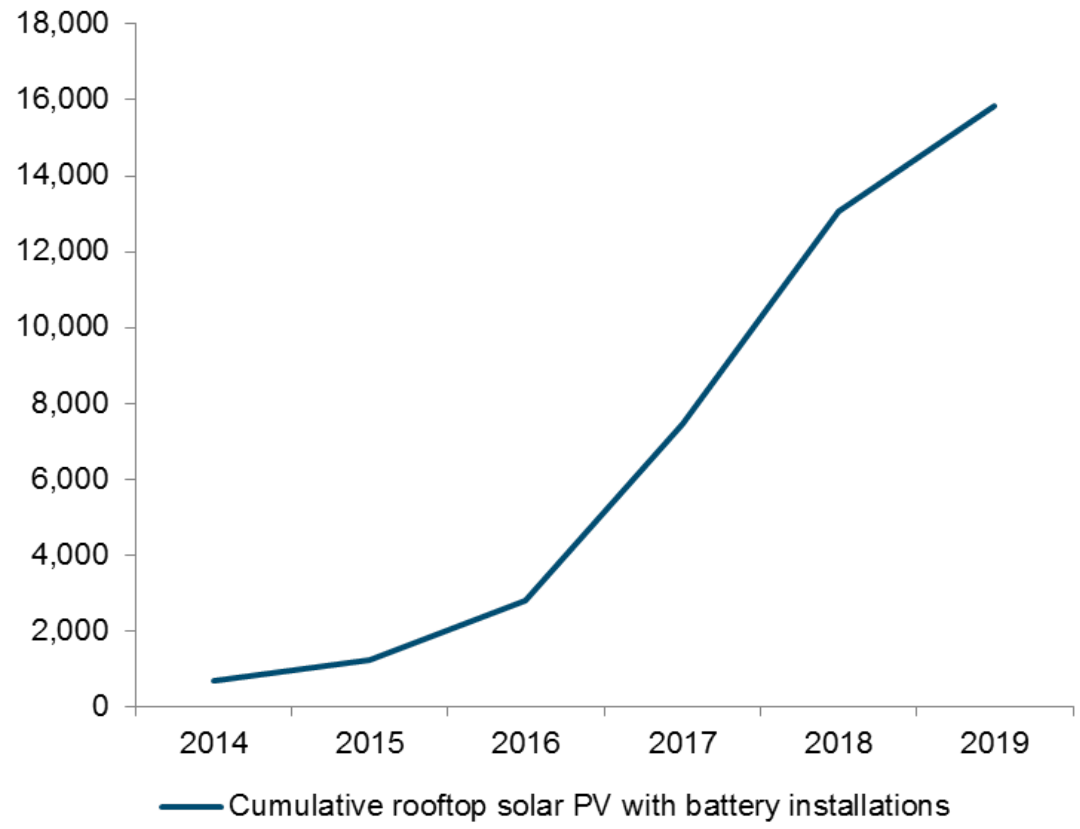


Source: Clean Energy Regulator, AEMO 2019 ESOO.
Note: Data as at 31 July 2019.

Increasingly households are installing battery storage with solar PV. Figure 2.5 shows the uptake of battery systems installed with solar PV since the Clean Energy Regulator (CER) began collecting data in 2014. This trend is expected to continue with state battery subsidies and the projected fall in the cost of batteries.[12]

12 AEMC, 2019 Retail energy competition review, p. iii.

Figure 2.5: Cumulative solar PV with battery installations

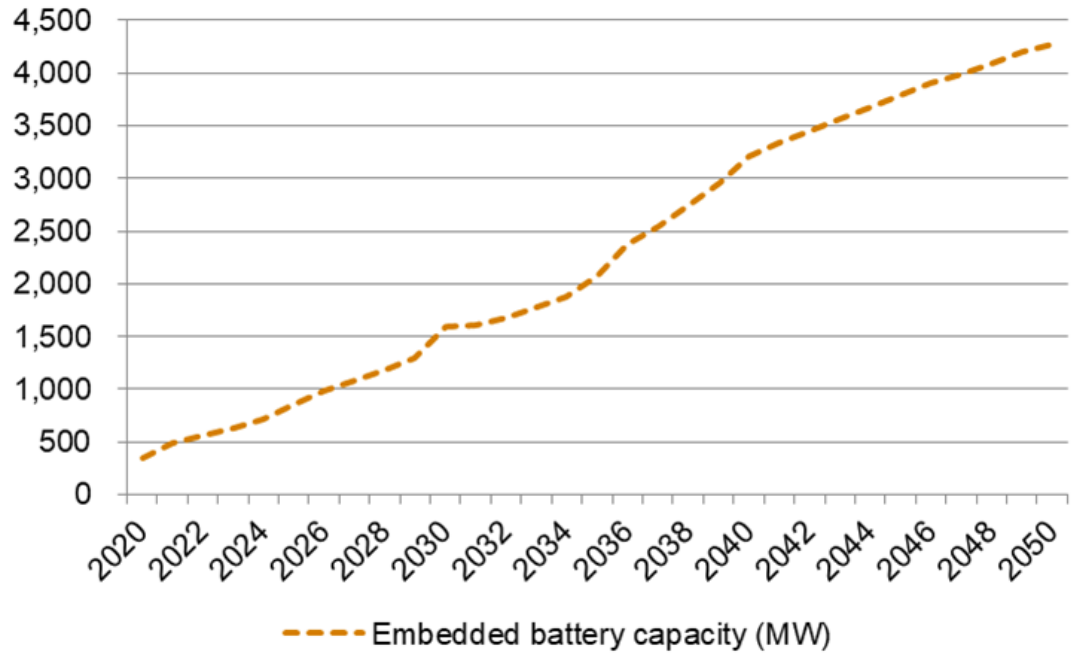


Source: Clean Energy Regulator.
Note: Data as at 31 July 2019.

These trends are not expected to slow down. The CSIRO has projected that there will be over 10 GWh of residential battery storage and over 4 GW of residential battery capacity in Australia by 2050.[13] To compare this capacity, the decommissioned coal fuelled Hazelwood Power Station had a capacity of 1.6 GW. Figure 2.6 shows AEMO's 2019 Electricity Statement of Opportunities (ESOO) forecast of embedded battery capacity in the NEM out to 2050.

13 See the CSIRO report for AEMO here: https://www.aemo.com.au/-/media/Files/Electricity/NEM/Planning_and_Forecasting/Inputs-Assumptions-Methodologies/2019/2019-Projections-for-Small-Scale-Embedded-Technologies-Report-by-CSIRO.pdf.

Figure 2.6: Embedded battery capacity



Source: AEMO, 2019 ESOO, Central scenario.

Note: The central scenario reflects the current transition of the energy industry under current policy settings and technology trajectories, where the transition from fossil fuels to renewable generation is generally led by market forces and supported by current federal and state government policies. AEMO, 2019 forecasting and planning scenarios, inputs, and assumptions; 2019 Electricity Statement of Opportunities.

By 2050, Bloomberg New Energy Finance expects a further 41 per cent reduction in residential battery costs from 2017 to $698 per kWh of storage capacity.[14] Costs for residential solar PV are expected to fall by a further 22 per cent between 2017 and 2030. However, the out-of-pocket cost for households will also depend upon whether there are subsidies to replace the SRES.[15] While battery costs have fallen significantly, they are not yet cost effective for the majority of small customers on flat tariffs. However, there are a number of state-level schemes supporting the uptake and are looking to subsidise the economics of batteries.[16]

14 Bloomberg New Energy Finance, Annabel Wilton, 2018 Australia Behind-the-meter PV and Storage Forecast, 31 May 2018, Sydney.

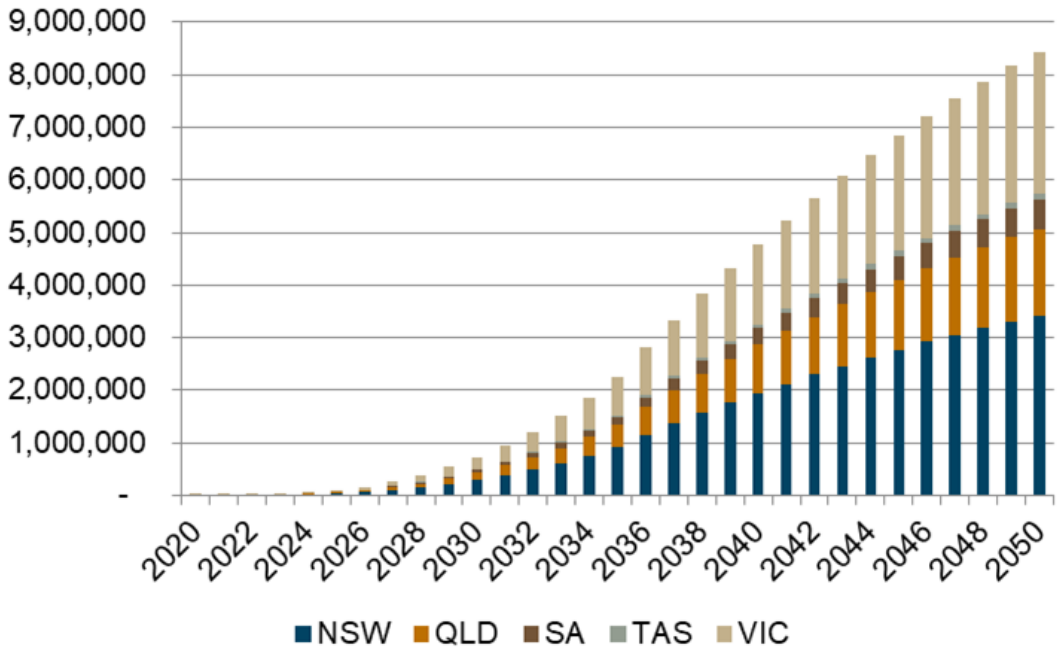
15 Bloomberg New Energy Finance, Annabel Wilton, 2018 Australia Behind-the-meter PV and Storage Forecast, 31 May 2018, Sydney.

16 South Australian Government. Home Battery Scheme, available at www.energymining.sa.gov.au/energy_implementation/home_battery_scheme; Victorian Government, available at www.premier.vic.gov.au/cheaper-electricity-with-solar-batteries-for-10000-homes/; New South Wales Government. Smart energy for homes and businesses, available at energy.nsw.gov.au/renewables/emerging-energy/cleanenergy-initiatives#-smart-energy-for-homes-and-businesses-; Australian Capital Territory Government, Home Battery Storage. Available at: www.actsmart.act.gov.au/what-can-i-do/homes/discounted-battery-storage; Queensland Government, Interest-free loans for solar and storage, www.qld.gov.au/community/cost-of-living-support/concessions/energy-concessions/solar-battery-rebate/about-the-program.

2.3.3 Electric vehicles

The uptake of EVs is expected to increase substantially in the coming decades. Figure 2.7 presents the projected EV uptake by state in AEMO's 2019 ESOO. This growth presents opportunities for customers to benefit by actively engaging with the electricity market.

Figure 2.7: Projected EV uptake



Source: AEMO, ESOO 2019, Central scenario.

Note: The central scenario reflects the current transition of the energy industry under current policy settings and technology trajectories, where the transition from fossil fuels to renewable generation is generally led by market forces and supported by current federal and state government policies. AEMO, 2019 forecasting and planning scenarios, inputs, and assumptions; 2019 Electricity Statement of Opportunities.

While this forecasted growth is large, it remains to be seen whether vehicle-to-home (V2H) or vehicle-to-grid (V2G) technologies will be integrated into the NEM. If they are used as V2G they could potentially provide large benefits to customers because EV batteries typically have much larger capacities than standard home batteries.[17]

> QUESTION 3: OTHER KEY PRODUCTS AND SERVICES TO CONSIDER
>
> Are there other energy products and services the Commission should consider in its analysis of new energy products and services?

17 For example the Nissan Leaf has a 40 kWh battery compared to the 13.5 kWh capacity of Tesla's Powerwall 2.

2.4 New revenue streams

Businesses are finding opportunities not only on the supply side but on the demand side of the energy market. There are new market and revenue streams available to consumers. These include participation in wholesale demand response programs through retailers, participation in distributor-led demand response and participating in other services including FCAS and the RERT. Access to these revenue streams is enabling the development of business models and intermediaries engaging with small customers. The traditional revenue model for market participants is changing with the entrance of new energy services and products.

For example, energy service providers who work with 'white-label' retailers (see section 2.2.2) to engage with a consumer, present an opportunity for the white-label retailer to outsource some of their retailer functions and provide other services to the energy service provider. The white-label retailer would be able to offer these services at a price to the energy service provider and the energy service provider charges the consumer a fixed price for the retail services offered. While white-label retailing is nascent in the NEM, it may develop such that retailers compete to provide retailer functions to new entrant energy service providers who do not wish to be an authorised retailer. Examples of the services that could be provided through this model include wholesale demand response and optimisation of electrical devices within a household.

QUESTION 4: EFFICIENCY OF REVENUE STREAMS

Which regulatory provisions may be preventing value creation through the adoption of new technology?

3 ISSUES FOR CONSULTATION

Chapter 2 of this paper provides an overview of the significant changes occurring in the energy market. Appendix A provides an overview of the regulatory reforms that have happened to date to address these changes. This highlights that both the risk appetite of some small customers, and their ability to manage these risks, are changing.

Given these developments, the Commission considers it appropriate to assess the coverage and nature of energy specific consumer protections. This Chapter considers two main areas:

- regulatory issues relevant in the light of new technologies and the market's digitalisation:
  - rethinking the rationale for energy specific consumer protections (NECF and voluntary frameworks)
  - application of consumer protections and regulatory boundaries
- regulatory tools to address these regulatory issues:
  - policy objectives of the ACL, NECF and voluntary codes to provide consumer protections for energy consumers
  - principles of a consumer protection framework.

It also discusses the same issues for industry led voluntary regulation and mechanisms to support such regulation.

3.1 Rationale for energy-specific consumer protections

Before assessing the consumer protections framework for energy consumers it is important to clarify the rationale for consumer protections over and above the generic provisions of the ACL.

Importantly, the Australian consumer protection framework was reviewed before and by doing so, the Productivity Commission identified two circumstances where industry-specific consumer regulation may be desirable:

- when the risk of consumer detriment is relatively high and/or the detriment suffered if things go wrong is potentially significant and possibly irreparable
- the suitability and quality of services is hard to gauge before or even after purchase.[18]

In Australia, in relation to the energy sector, there are two consumer regulatory frameworks that complement each other, the ACL, the general consumer framework and the NECF, the energy-specific framework.[19] The Commission, in consultation with the industry, is aiming to review the energy consumer framework to identify possible changes to existing framework, and identify other areas where specific consumer regulation is necessary.

In this section the Commission will discuss the principles that underpin energy specific consumer protection which are additional to consumer protections in the ACL.

18 Productivity Commission, Review of Australia's consumer policy framework, Inquiry report, Volume 1, 20 April 2008.
19 AEMC, 2019 Retail energy competition review, final report, 28 June 2019.

3.1.1 NECF

Consumer protection for the provision of essential goods and services is a well-known concern. The United Nations Guidelines for Consumer Protection include as a general principle to provide consumer access to essential goods and services.[20] These guidelines advocate for the promotion of universal access to public utilities,[21] such as energy.[22] Therefore, behind that definition of an essential service there is a consumer protection to provide universal access to this type service, different from ordinary services.

The NECF was developed in the context of regulating the supply of energy and network services. Energy is considered an essential service, and the principles of regulation have long considered that this type of service requires greater consumer protection. The NECF specifically sought to protect consumers from the risk of not being able to access energy, and the subsequent public health issues that would arise from the inability to heat water and cook food. The NECF was designed to reinforce this by providing that at least one retailer will be obliged to supply a small customer in the NEM. This framework sought to eliminate the risk of a customer being refused service by all retailers and therefore having no access to energy.[23]

Because of the essential nature of the service, the NECF provides a framework for consumer protections that are needed in addition to those general protections provided under the ACL. Central to the NECF is the principle that consumers have a right to access energy (as an essential service) on fair and reasonable terms.[24] The NECF does not provide a definition for 'sale of energy' or if it is limited to the supply of electricity and gas.[25] The NECF includes different provisions to guarantee that consumers have effective access to energy supply and network services (guaranteed connection obligations, limitations on disconnections and energy interruption, etc.).[26]

When the NECF was drafted, the distribution of electricity and gas through an interconnected grid was almost exclusively the model used to provide energy to consumers in Australia. However, as noted earlier, the market is undergoing a transition, including a transformation in what it means to be a 'consumer'. In the changing market, consumers can access energy not only through the grid but through self-generation with solar PV, stand-alone power systems or batteries. With digitalisation of the market, consumers are increasingly able to decide how and when they access energy from the grid, from their solar PV or their batteries.

Therefore, in this changing market it is increasingly important to consider what are the elements that define energy. Some of these elements have been identified in past processes. For example, as highlighted in appendix a.2.1, the AER has been required to analyse the nature of different energy supply arrangements to determine under which circumstances a

20 UNCTAD, *United Nations Guidelines for Consumer Protections*, 2016, guidelines 4-5.
21 UNCTAD, *United Nations Guidelines for Consumers Protections, guideline 77.*
22 UNCTAD, *United Nations Guidelines for Consumer Protections*, 2016, guideline 76.
23 NERL (Adoption) Bill 2012, Second Reading Speech.
24 NERL (Adoption) Bill 2012, Second Reading Speech.
25 NERL, Section 88.
26 AEMC, 2019 Retail energy competition review, final report, 28 June 2019. Please see section 9.1.6. of the final review.

supplier requires a retailer authorisation or may be granted an exemption. When analysing the application of the exemption framework to solar purchase agreement businesses, the AER identified two key elements to determine the nature of the service as follows:[27]

- if the service is optional or discretionary
- if the service is the primary source of energy to the premises.

> QUESTION 5: THE SUPPLY OF ENERGY IS AN ESSENTIAL SERVICE
>
> What are the elements that define the supply of energy as an essential service?

> QUESTION 6: CHANGES IN THE NATURE OF ENERGY SERVICE
>
> Has the essential nature of the sale of energy changed with the market's evolution?

> QUESTION 7: REGULATORY IMPLICATIONS
>
> If the answer to Question 6 is yes, what are the implications for the NECF as the energy specific consumer framework?

3.1.2 Voluntary framework

Consumers have access to an increasing range of new energy products and services. In some cases, these services and products may not fall within the concept of the sale of electricity that NECF applies to. Therefore, the consumer protections under the NECF are often not applicable to new energy products and services such as DER, BTM or demand response services.

The CEC jointly with other industry and consumer advocates have been developing a self-regulated framework to provide additional consumer protections beyond the ACL for services and products that are not covered by the NECF. This voluntary framework complements the ACL and identifies areas where the industry found improvements could be made. It covers businesses providing residential and small business customers with new energy technology products, systems and services, including solar panels and batteries, among others.

The CEC is not only the code administrator of the Solar retailer code but also provides other co-regulatory services through industry accreditation programs. Currently, the CEC manages three different programs:

27 AER, *Alternate energy sellers,* final statement of approach, July 2014.

- The approved solar retailers scheme: solar system retailers that are signatories of the mentioned solar code of conduct are part of this scheme and committed to comply with the requirements under the code. To date, the code has 470 signatories.[28]
- The designers and installers of solar systems accreditation program: involves pre-requisite training, provisional accreditation, full accreditation and professional development services. To date, there are 6,410 accredited installers and/or designers in this program.[29]
- The product assurance program: CEC verifies and tests solar and storage products that are eligible to be installed in Australia, based on their compliance with Australian and International Standards.

The Solar retailer code and the NET consumer code (voluntary codes), along with the accreditation programs, are designed to raise standards in the solar and new energy technology industry. These codes include obligations and protections to meet best practice standards and benefit consumers. Any person who is a signatory must comply with the associated requirements and can opt-out at any time.

However, under the Renewable Energy (Electricity) Regulations 2001 (Cth), consumers seeking to claim federal governmental financial incentives must use CEC accredited solar installer and designer, and use CEC approved products. There are number of state governments that also require consumers to use CEC approved products in order to qualify for their rebates. Therefore, this self-regulated framework has been widely used in the solar system industry.

In a very dynamic market there is a potential benefit of industry-led regulation. These codes are more flexible than government regulation and can be amended easily to keep pace of market changes. These initiatives could be very effective given the widespread support from the industry which demonstrate a greater sense of ownership of the voluntary framework and willingness to improve consumer outcomes.[30]

However, new energy services and products could affect the supply of energy as an essential service for small consumers. For example, the consequences for consumers when the supply of energy is interrupted or managed by a third party is an area where both energy-specific frameworks, the voluntary and the NECF, would need to support consumers and provide clear and fit for purpose requirements on market participants.

QUESTION 8: NEW ENERGY PRODUCTS AND SERVICES

For the supply of new energy products and services, is there any risk of consumer detriment that needs to be considered to have additional consumer protections (industry-specific regulation) beyond the voluntary framework? Please explain.

28 CEC, data provided after AEMC request.

29 CEC, data provided after AEMC request.

30 82 participants attended Technical forums to respond to structured questions and tested de draft of the NET Consumer Code. Attachment C - The New Energy Tech Consumer Code Journey, NET consumer code application received by the ACCC.

3.2 Application of energy consumer protections

As highlighted in chapter 2, the energy market has been evolving rapidly and new technologies and digitalisation means the boundaries between the electricity sector and other sectors is becoming increasingly blurred. Even understanding the boundaries between the traditional sale of energy and new energy products and services is key to keep pace in this changing market. There are regulatory issues that are also likely to be shared (e.g. privacy). Weighing the different trade-offs associated with defining the energy market boundaries will help pinpoint where regulatory issues may arise.

A key issue is how the products and services that consumer protections apply to are defined. In many instances this definition is likely to directly relate to the principles of the legislative framework. For example, if the principles relate to consumer protections for essential services, the challenge is to define the essential service. Similarly, if the principles are to protect certain groups of customers (e.g. hardship customers) within a broader market, the challenge is to define the group of customers.

There will be trade-offs when defining the market for the application of consumer protections. Broader definitions reduce risks of suppliers being able to avoid complying with consumer protections and potentially harming consumers. However, these increase the risk of unintentionally capturing suppliers of products or services, which also increases costs.

3.2.1 Application of the NECF

The NECF regulates the relationship between retailers, distributors and consumers. Under this framework retailers, distributors and consumers are the market players/participants that define the energy market. In relation to the product traded in this market, the NECF does not have an explicit definition for the supply of energy. Currently, it is only clear that the NECF applies in relation to the sale of electricity to customers whose premises are connected, or to be connected, to the interconnected national electricity system.[31]

Therefore, the application of the consumer protections under the NECF is premised on the sale of energy through the grid representing the essential supply of electricity to small consumers. However, this definition of the service traded in the market representing the essential service has been challenged in a number of ways in recent years. Several case studies are useful in exploring experiences to date where this has been the case, such as embedded networks, stand-alone power systems, solar power purchase agreements and bulk hot water (please see appendix b).

Additionally, the NECF requires any person selling energy to premises to be authorised or exempted (authorisation and exemption framework).[32] On the basis of an exemption or authorisation, the NECF provide the tools to include or exclude the market players covered under the regulatory framework.

31 NERL, section 16(a).

32 NERL, sections 117-118.

The NECF also empowers the AER to design consumer protections requirements for businesses which have been granted exemptions.[33] The AER's role in either authorising or exempting businesses selling energy is discretionary to decide whether an authorisation or exemption is appropriate.[34] For individual exemptions applications, the AER considers the policy principles, exempt seller related factors and customer related factors specified in the NERL.[35] Please see appendix c for further details.

3.2.2 Voluntary frameworks

There are new energy products and services that are not covered by the definition of the traditional sale of energy. This means that these are not covered under the NECF. Therefore, it is unlikely that consumers who buy these new energy products and services are protected by the consumer protections under the NECF. However, industry and consumer advocates developed a NET consumer code that covers all businesses providing residential and small business consumers with 'new energy tech products, systems and services'. Under this voluntary framework, the new energy tech is broadly defined as products, systems and services that are:

- small-scale (in-home or small business) products and systems that generate, store or trade energy away from Australia's main transmission and distribution Energy Networks or as DER connected to an Energy Network
- services that support or are closely related to those products and systems
- products, systems and services that monitor or manage a customer's usage of energy whether on or off an Energy Network and
- permitting future flexibility and innovation, any other product, system and service that the Consumer Code Administrator is satisfied sits appropriately within this Code.[36]

The applicants of the code note that this definition is intended to accommodate new products and services as they enter the Australian market where the nature, complexity and cost is such that the code protections are appropriate. Furthermore, that the sector is evolving rapidly with many innovations and therefore the definition and scope of 'New energy tech' is intended to evolve and expand over time.

In the Commission's initial analysis, a particularly strong feature of voluntary codes is that service and product definitions such as that within the NET consumer code can be framed very broadly with little prospect for inadvertently capturing providers where consumer protections are unnecessary. That is, with businesses able to decide whether to be a signatory to the code, the major definitional issues described in section 3.1.2 are less likely to be an issue.

33 NERL, sections 114-116.

34 The AER administers retailer authorisations an exemptions and has guidelines - the Retailer Authorisation Guideline and Retail Exempt Selling Guideline - which provide general guidance to new business engaging in the sale of energy. NERL, sections 117-118.

35 NERL, sections 114-116.

36 Application for ACCC Authorisation for proposed conduct (non-merger) - New energy tech consumer code, April 2019, p. 5.

> QUESTION 9: APPLICATION OF ENERGY CONSUMER PROTECTIONS
>
> Which elements of the energy market are useful to define the scope of the energy specific consumer framework?

3.3 Objectives of an overarching consumer regulatory framework

When the Productivity Commission reviewed Australia's consumer policy framework, it identified that a consumer regulatory framework should efficiently and effectively aim to assess the following objectives:[37]

- consumers are well-informed to benefit from the market and stimulate effective competition
- the products and services are safe and fit for the purposes for which they were sold
- meet the needs of those who, as consumers, are most vulnerable, or at greatest disadvantage
- prevent practices that are unfair and contrary to good faith
- provide accessible and timely redress where consumer detriment has occurred
- promote proportionate, risk-based enforcement.

The Commission will analyse how the above objectives are addressed through the three regulatory frameworks (ACL, NECF, voluntary codes) and complement each other to provide an overarching consumer framework to energy consumers. Through this analysis, the AEMC will identify potential areas for improvement on consumer protections for energy consumers to discuss through the consultation period with stakeholders.

> QUESTION 10: OBJECTIVES OF AN OVERARCHING CONSUMER FRAMEWORK
>
> Do you agree with the objectives identified by the Productivity Commission? Are there other objectives the AEMC should consider?

3.3.1 Well-informed consumers

Confident and informed consumers are the first line of defence against inappropriate supplier conduct. Empowered consumers will not only be less likely to suffer detriment, but will invigorate competition between suppliers.[38] Energy consumers have different protections available in this regard, under both the NECF and the ACL, and the voluntary codes. These are discussed below.

37 Productivity Commission, Review of Australia's consumer policy framework, Inquiry report, Volume 1, 20 April 2008.
38 Ibid.

ACL and NECF

Under the ACL the requirements do not specifically apply to energy retailers or retail marketers, but as they apply broadly across the economy, these capture energy market participants. These include:

- core consumer general protections prohibiting misleading or deceptive conduct and unconscionable conduct[39]
- specific protections against unfair practices, including (amongst others):[40]
  - false or misleading representations about goods or services[41]
  - misleading or deceptive conduct as to the nature of goods or services[42]
  - offers and unsolicited supplies of goods and services.[43]

In contrast, the NECF includes information provisions to assist consumers in being well-informed to benefit from the retail energy market and stimulate effective competition between suppliers (retailers). The NECF additional information protections relate to:

- retailer and distributor general information before the energy contract is formed (marketing and offers)
- additional information requirements once the energy contract is formed (additional information requirements).[44]

Most of these information requirements are related to pricing, consumer information request, general information for the supply of energy, and notifications for new meter deployments and energy supply interruptions.[45] These information requirements, as stated in section 3.1are only related to the sale of energy, as that service is contemplated by the NECF.

New energy products and services - voluntary codes

Under the NET consumer code and the Solar code of conduct (the voluntary codes), the industry identified additional consumer protections regarding information to complement the ACL and where the NECF is not applicable. Both codes include provisions for information requirements for new energy products and services suppliers. The industry identified that not providing enough and clear information to consumers could create risks and limit the potential benefits for consumers. These limitations can not only affect the new energy products and services market, but also limits the potential benefits within the retail energy market (the supply of energy covered under the NECF).

This voluntary framework includes the following additional information requirements:

- Contract terms:

39 ACL, Part 2-1 and 2-2.
40 ACL, Part 3-1.
41 ACL, Part 3-1, Section 29.
42 ACL, Part 3-1, Sections 33-34.
43 ACL, Part 3-1, Division 2.
44 AEMC, *2019 Retail energy competition review*, final report, 28 June 2019.
45 Ibid, p. 173.

  - Contract requirements for consumers to know well the products they are buying, the total price, the value on discounts and the money they can receive under Small-scale technology certificates and rebates.
  - Both codes also require that any information on the refund policy is included upfront in the contract.
- Marketing and offers:
  - Protections related to false and misleading conduct, unsolicited services and products, high pressure sales and referral selling prohibitions. These protections are already part of the ACL.
  - Provisions on pre-contractual requirements to avoid consumer confusion and to clarify any payments and trade of government and regulatory certificates. Suppliers must clarify any references to Small-scale technology certificates to be consistent with the Clean Energy Regulator (Solar code of conduct).
  - Protections similar to the NECF, for marketing practices, suppliers must have a no contact list.[46]
  - The NET consumer code also includes provisions to ask about consumer needs, such as medical or life-support equipment, before a contract is formed.
- Additional information requirements: the codes include additional information requirements in areas where consumers might need clear and upfront information, such as:
  - maintenance of the systems (Solar code of conduct)
  - financial information on the limitations and expected life of the products (NET consumer code)
  - price change notifications (NET consumer code), which is also included under the NECF.[47]

Information provisions are essential to deliver the best outcomes to consumers in this evolving market. The following are potential harms related to new energy services and products where information provisions could offer a solution to consider:

- Exposure to greater price volatility: by signing up to more dynamic pricing structures, consumers can be exposed to a greater level of financial risk. That is, there is greater prospect of unexpected costs being imposed on the consumer.
- Risks of misinformation: given the potential exposure to greater volatility, there is an increased potential for consumers to make financially motivated decisions with insufficient or incorrect information. This in turn could lead to financial risks for consumers.

These risks are related to information provisions under the NECF, the ACL and the voluntary codes. Box 2 illustrates an example where these frameworks can overlap and create potential confusion for consumers and businesses.

46 NERR, Rule 65.
47 NERR, Rule 48A.

BOX 2: FUTURE MARKET - EXAMPLE

A future small customer could have two different services, the supply of energy and demand response services. The application of the consumer framework is potentially confusing depending on the person who provides them as follows:

- The authorised retailer provides both services: in the case where an authorised retailer is the supplier of energy for the premises and is also the provider of demand response;
  - Would the NECF only apply to the retail energy service or to both services (i.e. price change notification requirements)?
- The authorised retailer supplies the retail energy to the customer as a white-label retailer and a third party provides demand response services:
  - Would the NECF only apply to the supply of energy and the ACL will apply to the supply of demand response services?

QUESTION 11: INTEGRATING THE ENERGY CONSUMER FRAMEWORK

How can the three consumer frameworks be better integrated to make it easier for energy customers and businesses in terms of information requirements? Please give specific examples.

3.3.2 Products and services are safe and fit for the purposes for which they are sold

Product safety issues are generally national in nature. Product safety issues can also have potentially severe consequences for some consumers if not promptly addressed. The ACL, the NECF, jurisdictional legislation and the voluntary codes have different provisions to protect consumers in this area.

ACL and NECF

In terms of service standards and quality, the ACL has a broad scope and provides consumer guarantees for consumer transactions relating to the supply of goods. These consumer guarantees do not apply to the supply of electricity and gas but may apply to other energy products or services such as DER and demand response services.[48]

In contrast, the specific requirements under the NECF are related to the sale of energy.[49] Under this framework consumers are protected from disruption to electricity and/or gas supply in the event of retailer failure.[50] Additionally, distributors must also comply with any applicable distributor service standards, including Guaranteed Service Level (GSL) schemes.[51]

48 ACL, Section 65.
49 AEMC, *2019 Retail energy competition review*, final report, 28 June 2019.
50 NERL, Part 6, Retailer of Last Resort scheme.

Customers (small customers only in some jurisdictions) who are connected directly to the distributor's network are subject to, by way of local legislation or codes, GSLs which cover areas such as reliability customer service and connection and disconnection.[52]

Additionally, some jurisdictions have legislative frameworks for the regulation of consumer safety in relation to gas and electrical products and services.[53] However, this legislation is out of scope for this review.

Voluntary codes

In addition to the above protections, the voluntary codes include protections related to the performance of some of these new energy products and services. These protections are related to:

- Service standards and quality: both codes include additional protections relating to consumer guarantees and warranty claims on the minimum standards and period of these protections.
- Consumer expectations: if the new technology service and product will meet the reasonable expectations as explained when the product/services was bought.[54]
- Performance post-installation: signatories of the Solar retailer code of conduct must advise the consumer how to measure the performance of their system.[55]

> QUESTION 12: POTENTIAL RISKS TO CONSIDER
>
> Are there additional risks to consumers that should be considered and are not already addressed by the NECF, ACL and the voluntary codes?

3.3.3 Vulnerable consumers or at greatest disadvantage

The Productivity Commission found that Australia's consumer policy framework must continue to pay particular attention to the needs of vulnerable and disadvantaged consumers. Catering for these needs in a practical and efficient manner raises significant challenges. An overly narrow policy focus on the interests of vulnerable and disadvantaged consumers is likely to impose costs on other consumers.[56]This could also raise a *moral hazard* problem where consumers would take additional risks knowing that the costs of these risks will be covered.[57]

51 NERR, Rule 84.

52 Each jurisdiction prescribes GSL schemes, generally for each distribution business. These GSL schemes are determined by jurisdictional regulators and are usually included in a code or licence conditions administered by the jurisdictional regulator. Chapter 5 in the NER details some power system performance and supply standards (technical requirements), as well as conditions for connection, but do not cover reliability. AEMC, *Review of the regulatory frameworks for stand-alone power systems*, Priority 1 - Draft, 18 December 2018, p. 117.

53 For example, *Gas and Electricity (Consumer Safety) Act 2017 (NSW).*

54 New Energy Tech consumer code, application received to the ACCC for approval of the NET consumer code, 30 April 2019.

55 ACCC, Solar retailer code of conduct, final determination, 23 September 2015.

56 Productivity Commission, Review of Australia's consumer policy framework, Inquiry report, Volume 1, 20 April 2008.

57 Moral hazard problem in economics is a situation in which one party gets involved in a risky event knowing that it is protected against the risk and the other party will incur the cost.

ACL and NECF

The ACL does not include specific provisions to protect a consumer segment and provide additional protections. Its provisions protect in general every consumer that buys products and services in Australia.

In contrast, the NECF has specific provisions to consider a spectrum of consumers that need additional consumer protections for the supply of energy, given its nature as an essential service. This framework includes two main circumstances for the protection of vulnerable consumers: financial difficulty and health (with life-support equipment).

Under the NERL, retailers are required to have in place hardship policies for residential customers and to have these policies approved by the AER.[58] The NERL sets the minimum requirements that a hardship policy must contain. The purpose of a retailer's hardship policy is to identify residential customers who are experiencing payment difficulties due to hardship and assist them to better manage their bills on an ongoing basis.[59]

However, in 2017 the AER carried out a review of the hardship programs of nine selected retailers and identified a number of issues relating to the way retailers were developing and implementing their hardship policies. As a result of its review, the AER submitted a rule change request, and the AEMC made a rule that required the AER to develop hardship guidelines to include additional requirements for retailers but giving them the flexibility on how they implement their minimum requirements to best suit their customers.[60]

Voluntary codes

The voluntary codes also include a number of circumstances that suppliers should consider and take additional care to respond to promptly when offering their products and services to consumers. The consumer circumstances included under the codes are the following:

- illness
- impairment
- a victim of abuse
- financial stress
- need for medical or life-support equipment or services.[61]

The voluntary codes do not include specific requirements to oblige suppliers of new energy services and products implement a policy to protect and identify consumers under the above circumstances. However, during the development of the NET consumer code, the consequences for consumers with life-support equipment and medical heating or cooling needs were considered to be too severe to be managed by a voluntary code.[62]

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58 NERR, Part 3 and NERL, Part 2, Division 6.

59 NERL, section 43(1).

60 AEMC, Strengthening protections for customers in hardship, final determination.

61 New Energy Tech consumer code, application received to the ACCC for approval of the NET consumer code, 30 April 2019.

62 New Energy Tech consumer code, application received to the ACCC for approval of the NET consumer code, 30 April 2019.

QUESTION 13: VULNERABLE CONSUMERS

For new energy services and products, what characteristics of a vulnerable consumer should be considered under the energy-specific regulatory framework different to any other industry? Why?

QUESTION 14: CONSUMER PROTECTIONS FOR VULNERABLE CONSUMERS

For new energy services and products, are there additional risks to vulnerable consumers that should be considered and are not already addressed by the ACL and the voluntary codes?

QUESTION 15: POLICY RISKS

What are the risks of extending the obligation of having policies that identify and protect consumers under vulnerable circumstances to new energy services and products suppliers?

3.3.4 Practices that are unfair and contrary to good faith

The Productivity Commission considered that the high level objective for the future policy frameworks should be "*to improve consumer well-being by fostering effective competition and enabling the confident participation of consumers in markets in which both consumers and suppliers can trade in fairly and good faith.*"[63]

ACL and NECF

The ACL has general consumer protections as well as more specific protections to prohibit certain types of conduct considered unfair or contrary to good faith. These include:

- Misleading and deceptive conduct:[64] any person (including retailers, distributors, retail marketers, in general any energy market participant) must not, in trade or commerce, engage in conduct that is misleading or deceptive or is likely to mislead or deceive.
- Unconscionable conduct:[65] the ACL includes provisions prohibiting a person from engaging in unconscionable conduct.The term "unconscionable conduct" is not defined in the ACL, as its meaning has been developed by the courts.[66] Conduct may be unconscionable if it is particularly harsh or oppressive such that it goes against good

63 Productivity Commission, *Review of Australia's consumer policy framework,* Inquiry report, Volume 2, 30 April 2008, recommendation 3.1., pp. XI, XV.

64 ACL, Chapter 2, Part 2-1.

65 ACL, Part 2-2.

66 ACL, Part 2-2, Chapter 2. However, the ACL is not limited by the unwritten law relating to unconscionable conduct. See ACL, Section 21(4)(a)The ACL gives recognition to the doctrine of unconscionable conduct at common law level.

conscience, and to be considered unconscionable, the conduct must be more than simply unfair.[67]

- Unfair practices: additionally, the ACL also provides specific protections for unfair practices which could relate to marketing and offering activities in the energy sector.[68]
- False or misleading representations:[69] under this framework, a person cannot, in trade or commerce, in connection with the supply or possible supply of goods or services, make false or misleading statements. For example, a person must not make a false or misleading representation with respect to the price of goods or services.[70] This provision, and the ACL's unfair practices provisions more generally, can apply to price competition practices in relation to energy contracts and advertisement in the NEM.
- Offering rebates, gifts, prizes: additionally, the ACL also limits the offer of any rebate, gift, prize or other free item with the intention of not providing it or of not providing it as offered.[71] Consumers are protected from unfair commercial practices that will not deliver what the customer is expecting from the offer.
- Bait advertising: the ACL contains a specific prohibition for bait advertising which takes place when an advertisement promotes certain (usually 'sale') prices on products that are not available or available only in very limited quantities.[72] This provision considers the specified offer price, the quantities and the nature of the advertising.[73]
- Referral selling: a person must not induce a consumer to buy goods or services by representing that the consumer will receive some benefit, such as a rebate or commission, in return for helping the business supply goods or services to other customers.[74]

In contrast, the NECF does not include additional provisions to address conduct or practices considered unfair or against good faith. It includes some provisions related to marketing, pricing and information requirements to regulate that the sale and supply of energy is provided on fair and reasonable terms.[75] However, the ACL is the principal consumer protection and fair trading law in Australia.[76]

New energy services and products - voluntary codes

The voluntary codes replicate some provisions under the ACL related to unfair practices. Both codes prevent suppliers:

- including false or misleading claims in advertising and marketing practices

67 ACCC, Advertising and selling guide, November 2017, p. 35.
68 ACL, Chapter 3, Part 3-1.
69 ACL, Section 29(1).
70 ACL, Section 29(1)(i).
71 ACL, Section 32.
72 ACCC, False or misleading claims, found at: www.accc.gov.au/consumers/misleading-claims-advertising/false-or-misleading-claims, accessed 27 May 2019.
73 ACL, Section 35.
74 ACL, Section 49.
75 NERL (Adoption) Bill 2012, Second Reading Speech.
76 AEMC, *2019 Retail energy competition review*, Detailed summary of NECF and ACL.

- engaging in any misleading or deceptive conduct in relation to the price, value or quality of the new energy services and products offered in the market
- having high-pressure sales tactics
- providing unfair terms or unclear information to consumers.[77]

> QUESTION 16: OTHER CHARACTERISTICS FOR CONSIDERATION
>
> Do new energy products and services have specific characteristics that require additional protections to prevent unfair practices or conduct against good faith that should go beyond the ACL? Please explain.

3.3.5 Accessible and timely redress

Most consumers suffering detriment initially and appropriately complain to the relevant business. Where this does not provide a solution, consumers have other choices about whom to contact next.[78] Redress and enforcement provisions should provide ways to quickly direct consumers who have suffered detriment to the right redress option. The ACL and the NECF have different redress mechanisms and provide access to different dispute resolution schemes.

ACL and NECF

Under the ACL, the ACCC is the national regulator responsible for monitoring, investigating, enforcing and reporting on compliance with obligations under the ACL in respect of systemic conduct in trade or commerce at a national level and consistent with published priorities.[79] However, the ACCC is not a complaint handling body, and rarely becomes involved in individual consumer or small business disputes.

Instead, consumers are encouraged to bring complaints related to these matters to the consumer protection agency in their state or territory. Each state and territory has its own consumer protection agency that administers the ACL in its jurisdiction.[80]

In contrast, under the NECF, energy customers have two primary mechanisms to resolve complaints and disputes. Under the NERL, retailers and distributors must have their own standard complaint and dispute resolution procedures and, must also be members of an energy ombudsman scheme to resolve any relevant matter concerning the customer and a retailer or distributor.[81]

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77 *New Energy Tech consumer code*, application received to the ACCC for approval of the NET consumer code, 30 April 2019; ACCC, *Solar retailer code of conduct*, final determination, 23 September 2015.

78 Productivity Commission, Review of Australia's consumer policy framework, Inquiry report, Volume 1, 20 April 2008.

79 Compliance and enforcement: How regulators enforce the Australian consumer law, p. 5.

80 ACT: Access Canberra; NT: Northern Territory Consumer Affairs; VIC: Consumer Affairs Victoria; NSW: NSW Fair Trading; QLD: QLD Office of Fair Trading; SA: Consumer and Business Services South Australia; WA: WA Department of Commerce, Consumer Protection.

81 NERL, sections 80-86.

Energy ombudsmen provide independent dispute resolution services for disputes relating the supply of energy. Small customers can access a jurisdictional energy ombudsman to resolve disputes and complaints with their retailer and/or distributor. Retailers and distributors are bound by the ombudsman's decision. Customers have the right to refer a complaint against retailers and distributors before the relevant ombudsman.[82]

New energy services and products - voluntary codes

Consumers of new energy products and services are protected under the ACL and can access to the ACL's tools and actions to complain. In addition to these, under the voluntary framework, consumers have access to additional redress mechanisms as follows:

- Under the Solar retailer code, the code administrator is not a dispute resolution body and will refer customers to either the code signatory or the relevant consumer protection organisation.[83]
- Under the NET consumer code, consumers will have the right to make a complaint to the code administrator for any breach of the code. This provision seems to bring a new external dispute resolution scheme, different to the energy ombudsmen, available only to consumers of NET services and products.
- Under the NET consumer code, signatories are also required to have an internal dispute resolution procedures which will have to include a time frame for responding to consumers.[84] This additional requirement is beyond the ACL.

QUESTION 17: ADDITIONAL REDRESS MECHANISMS

Does the nature of the market (new energy services and products) require an industry specific system/scheme to handle consumer complaints? Please explain.

QUESTION 18: EFFECTS OF DIFFERENT REDRESS MECHANISMS

What are the risks of having different redress mechanisms under different consumer frameworks? Please explain.

QUESTION 19: REDRESS MECHANISMS BEYOND THE ACL

Is there a better way to provide access to effective and strong redress mechanisms for consumers of new energy products and services?

82 NERL, Part 4.
83 ACCC, Solar retailer code of conduct, final determination, 23 September 2015.
84 15 business days for the first response and 25 business days for a final response. NET consumer code, section 43.

3.3.6 Proportionate, risk-based enforcement

Accessible remedies for consumers, and effective and efficient enforcement by regulators are essential parts of a well-functioning consumer policy regime.[85] Under the NECF and the ACL, compliance and enforcement powers are exercised in different ways. Each framework has its own regulators, agencies and processes to ensure consumer protection. The NECF contains civil and private enforcement remedies. In addition to these, the ACL contains civil and administrative remedies but also criminal enforcement remedies.[86] Enforcement and redress mechanisms must comprise sanctions with escalating severity to deal with different level of breaches and consumer risks, accordingly with the regulatory scope of each of these frameworks (i.e. mandatory, voluntary regulation).

ACL and NECF

The ACL is administered and enforced jointly by the ACCC (national), the jurisdictional regulators and the state and territory consumer protection agencies, with the involvement of Australian Securities and Investments Commission on relevant matters.[87] For the purposes of the application of the ACL, each state and territory regulator is independent and has its own enabling legislation and exercises its powers and functions accordingly.[88] The ACCC has national responsibilities and can act in all states and territories.[89]

ACL regulators have a range of enforcement tools and strategies to facilitate compliance with the law. In addition to those, the ACL provides private rights that consumers can enforce through federal, state and territory courts and tribunals. The enforcement tools, remedies and strategies include:[90]

- providing education and advice to traders
- making public statements such as media releases and public warnings
- issuing formal written warnings
- encouraging dispute resolution
- issuing infringement notices
- civil court actions that may result in pecuniary penalties, disqualification orders, injunctions or compensation orders.[91]

In order to take enforcement action in this way, consumers need to be aware of their rights and responsibilities, and how to obtain redress. Providing information and advice to consumers for this purpose is a key function of the ACL regulators. It is often recognised that there are substantial barriers to seeking redress through the formal court mechanisms discussed above, which makes it difficult for individuals to seek redress. These barriers

85 Productivity Commission, Review of Australia's consumer policy framework, Inquiry report, Volume 1, 20 April 2008.

86 ACL, Chapter 5.

87 Some consumer protection provisions in the ACL are mirrored in the *Australian Securities and Investments Commission Act 2001* (Cth) (ASIC Act) in relation to financial products and services. ASIC is responsible for administering and enforcing the ASIC Act.

88 Compliance and enforcement: How regulators enforce the Australian consumer law, p. 12.

89 Compliance and enforcement: How regulators enforce the Australian consumer law, p. 8-12.

90 Compliance and enforcement: How regulators enforce the Australian consumer law.

91 ACL, Chapter 5.

include the intimidating nature of the legal process, lack of awareness about existing legal rights, the time and cost of seeking redress as well as the emotional stress involved. For this reason, more informal forms of redress are considered important in ensuring more effective implementation and enforcement of consumer law.

As mentioned, the ACCC does not handle individual disputes; rather it prioritises enforcement action on more widespread issues that reflect the potential for greater consumer detriment. State and territory ACL regulators therefore play an important role in resolving disputes between consumers and traders about goods and services covered by the ACL. These local regulators provide information on their websites about dispute resolution and trader engagement programs.[92]

Under the NECF, the AER has responsibilities for enforcement of the laws and rules relating to electricity and gas retail markets in participating jurisdictions. The AER is responsible for monitoring, investigating, enforcing and reporting on compliance by regulated entities under the NERL and NERR.[93] The AER has a range of enforcement responses to breaches of obligations under NECF, which can be categorised broadly as either 'administrative' or 'statutory' actions.[94]

Administrative responses are informal enforcement options, which are not expressly provided for under the statutory framework. For example, such responses may include voluntary commitments to rectify non-compliance by implementing a compliance program, improving internal operational procedures or conducting staff training. The AER has no legal power to enforce voluntary commitments.[95]

Statutory enforcement action involves the AER taking action under its enforcement powers under the NERL. For example, by issuing an infringement notice or initiating court proceedings. These include the power to:[96]

- issue infringement notices[97]
- seek enforceable undertakings.[98]

Many of the information, contract terms, hardship and life support requirements under the NERR are civil penalty provisions and, as such, carry a more significant consequence in case of a breach.[99]

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92 AEMC, 2019 Retail energy competition review, final report, 28 June 2019.

93 See section 204 of the NERL for AER's functions.

94 While terms 'administrative' and 'statutory' responses are not formally used in the NERL, they have been adopted by the AER under its Compliance and Enforcement — Statement of approach.

95 AER, Compliance and Enforcement — Statement of approach, April 2014.

96 For further details, please see AEMC, *2019 Retail energy competition review*, final report, 28 June 2019.

97 An infringement notice provides the recipient the option of either paying a penalty, or choose to have the matter heard in Court. Under s. 308 of the NERL, the AER's infringement notice regime in Part 7 of Chapter 8 of the NGL apply to civil penalty provisions in the NERL in the same way as they apply to civil penalty provisions in the NGL.

98 Under s. 288 of the NERL, the AER may accept a written undertaking from a person in respect of a breach by that entity of the NERL, NERR or Regulations. An entity may withdraw or vary the undertaking at any time, but only with the consent of the AER. If the AER considers the entity person has breached the terms of the undertaking, it can apply to a Court for an order - e.g. an order that: (a) the party comply the undertaking; (b) the party pay the Cth an amount up to the amount of any financial benefit that the person has obtained directly or indirectly and that is reasonably attributable to the breach; (c) an order directing the party to compensate any person who has suffered loss or damage as the result of the breach.

99 AEMC, *2019 Retail energy competition review*, final report, 28 June 2019.

In addition to the above, the AER also has the powers under the NERL to revoke a retailer authorisation if it is satisfied that there has been a material failure by a retailer to meet its obligations under the NERL, and there is a reasonable concern that the retailer will not be able to meet its obligations in the future. Revoking a retailer authorisation prohibits a retailer from selling energy in any participating jurisdiction.[100]

New energy services and products - voluntary codes

The Solar retailer code is a way promote consumer purchase of solar PV and storage from a company they can trust. The code administrator monitors code compliance and can take the following actions:

- audits
- initiation of inquiries to businesses into compliance
- investigating complaints if a breach of the code is claimed
- enforcement actions (suspension, cancellation, termination of signatories).[101]

The code is not a mandatory code but if consumers seek to claim federal government incentives, the solar system (products) and its supplier will need to be accredited by the CEC. Every accredited party is subject to the above compliance actions.

Under the NET consumer code there are two bodies responsible for its compliance. The code administrator and the code Monitoring and compliance panel.[102] The code Monitoring and compliance panel will review the decisions and oversee the monitoring of compliance and enforcement of the code made by the administrator. The compliance actions for the code administrator include:

- regular compliance audits and mystery shopping
- enforcement actions (suspension or expulsion).[103]

> QUESTION 20: ENFORCEMENT OF THE ENERGY CONSUMER FRAMEWORK
>
> How could the enforcement tools and actions under the voluntary framework be better integrated with the ACL and the NECF? Please explain.

3.4 Assessment principles

The Commission will use the following principles when considering improvements to the overarching energy consumer framework:

- Regulatory simplicity

100 NERL, Section 120. AER, Compliance and Enforcement — Statement of approach, April 2014, p. 17.
101 The Solar retailer code includes different categories of breaches (sever, major, medium or minor).
102 It is currently uncertain who will be the code administrator and who will integrate the monitoring and compliance panel.
103 New Energy Tech consumer code, application received to the ACCC for approval of the NET consumer code, 30 April 2019.

In any market it is important market participants have a clear understanding of their obligations and rights. Clear requirements and protections will help to condition the expectations of consumers and suppliers and thereby promote more effective interaction between them. Regulation must include clear and comprehensible provisions, specially in regard to enforcement and redress mechanisms and tools.

- Regulatory harmonisation/integration

Harmonising and streamlining currently divergent specific regulation with the generic regulation will deliver efficiency to the market. It will decrease regulatory costs for market participants and will improve consumer outcomes. The Commission will consider minimising over-regulation and avoiding overlap, duplication and inconsistency.

- Regulatory flexibility

The energy market is evolving rapidly and regulatory approach should support - not hinder - market innovation. The consumer framework should be flexible enough to deal with general and special circumstances. The level of regulation applied to a business must be appropriate for the type of energy services and products offered. Regulatory provisions must adopt a flexible approach that reflects the diversity of participants and the dynamic nature of the energy market.

To provide appropriate consumer protections, the framework should account for possible future developments of the electricity industry and the implications of these developments for small consumers. More flexible and responsive regulation would require greater reliance, than now, on competition law than industry-specific regulation. Therefore, competition regulation should be sufficiently reliable and effective to discharge its extra responsibilities.

QUESTION 21: PRINCIPLES

Are there any other principles the Commission should consider?

ABBREVIATIONS

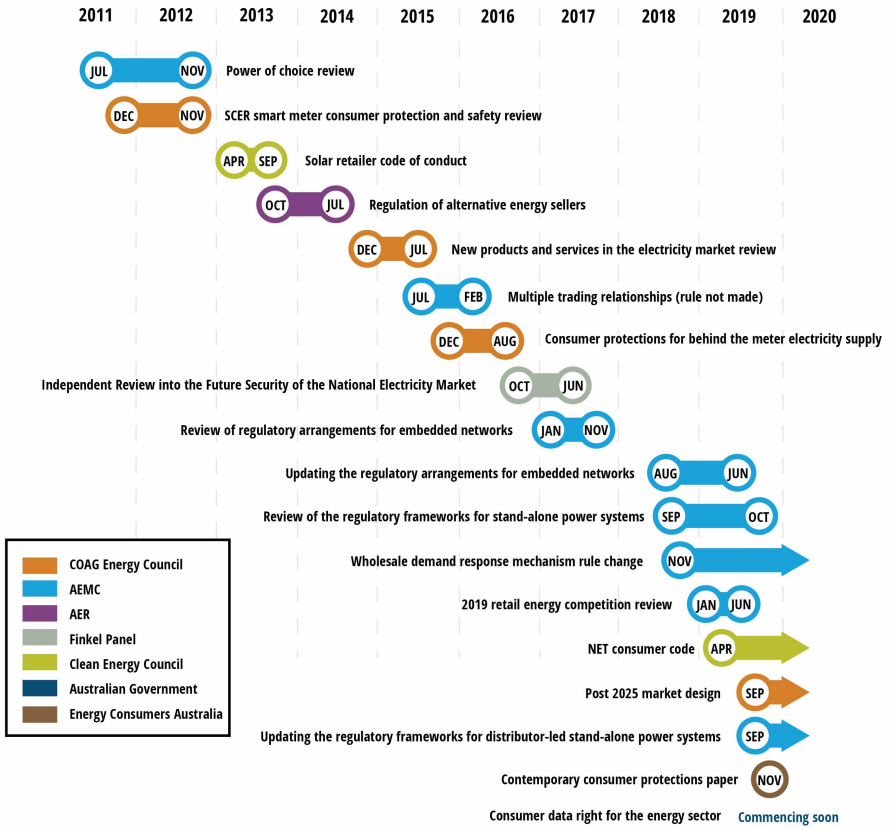
ACCC	Australian Competition and Consumer Commission
ACL	Australian Consumer Law
AEC	Australian Energy Council
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
BTM	Behind the meter
CEC	Clean Energy Council
Commission	See AEMC
DNSP	Distributed network service providers
ECA	Energy Consumer Australia
FRMP	Financially responsible market participant
MCE	Ministerial Council on Energy
NEL	National Electricity Law
NEO	National electricity objective
NECF	National Energy Customer Framework
NERL	National Energy Retail Law
NERO	National energy retail objective
NGL	National Gas Law
NGO	National gas objective
SEC	Smart Energy Council
SCER	Standing Council on Energy and Resources
SPPA	Solar purchase agreement

A RELATED PROJECTS

Different energy market bodies have a number of projects (rule changes, reviews, voluntary codes of conduct and programs) related to new non-traditional energy services and products.[104] A summary of each project is set out below. The purpose of this chapter is to identify the issues being considered in each of these projects to provide context to the Commission's analysis of consumer protections.

For reference, Figure A.1 is the timeline of the projects described below.

Figure A.1: Timeline of related projects



Source: AEMC.

A.1 COAG Energy Council

A.1.1 SCER Smart meter consumer protection and safety review

In December 2007, the Ministerial Council on Energy[105], committed to work with stakeholders to review the consumer protection and safety arrangements for consumers with smart

104 Including DER and demand response services and products.

105 The Standing Council on Energy and Resources (SCER) at the time.

meters. The review sought to identify if there was a need for additional arrangements in light of the services enabled by these new meters. In December 2011, the Standing Council on Energy and Resources' (SCER) Energy Market Reform Working Group (EMRWG)[106] carried out public consultation and published policy papers raising potential issues under NECF arrangements.[107] In November 2012, an *Officials' Report* was published with the final recommendations.[108]

This *Officials' Report* recommended the AER clarify the application of the NECF to energy management services for small customers, including services bundled with or associated with energy supply and those offered by third parties (other than retailers or distributors). In this analysis, SCER discussed the following circumstances:

- the nature of the service, if it involves the sale of electricity, the applicable framework might be the NECF
- the person providing the service, if it is offered by third parties the applicable framework might be the ACL
- the link to the sale of energy, if the energy management, energy information and other services are provided to small customers as a condition of, or bundled with, the sale of energy then the NECF may apply. The companies offering such services may be considered agents or associates of a retailer or distributor who pass on its NECF obligations through an agency contract.[109]

This report also recognised that for the effective operation of some types of energy information and energy management services the NECF may be required to be applied in addition to the ACL. It proposed that a form of authorisation or registration (including customer consent and private obligations) should be a prerequisite to enable third-party access to consumer data.[110]

A.1.2 New products and services in the electricity market review

On December 2014, the EMRWG released a consultation paper examining the regulatory implications of new products and services in the electricity market. The paper considered a range of issues related to consumer protections in the electricity market, as well as the possible impact that some new products and services could have on electricity network operations.[111] The consultation paper discussed whether new energy products and services should be drawn into the energy-specific consumer protections under the NECF and which was the most effective way to address these issues.

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106 The Energy Market Reform Working Group consisted of officials from the state, territory and Commonwealth agencies with responsibility for energy policy. It operated under the COAG Energy Council framework.

107 SCER, National smart meter consumer protections and pricing, draft policy paper one and two, December 2011.

108 SCER, Senior Committee of Officials', Energy Market Reform Working Group, National smart meter consumer protection and safety review, November 2012.

109 SCER, Smart Meters - Officials' Report, November 2012.

110 SCER, Smart Meters - Officials' Report, November 2012, pp. 48-50.

111 COAG Energy Council, Energy Market Reform Working Group, *New products and services in the electricity market,* consultation on regulatory implications, December 2014, http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/Consultation-Paper-new-products-services.pdf

In July 2015, the EMRWG provided their advice to COAG on the matter.[112] The review found that for many new energy products and services (energy efficiency services, direct load control and home energy management services), the ACL and the Privacy Act *1998* (Cth) provide an appropriate level of consumer protections. However, it recommended undertaking further work on whether the scope of energy consumer protections needs to change when customers have an increasing range of electricity supply options and to consider the appropriateness of the ACL to manage risks associated to these new electricity supply options.

In this advice to COAG Energy Council, the EMRWG identified three underlying issues that tested the appropriateness of the energy consumer protection framework:

- *customers could see different protections in relation to their supply of these products and services, depending on who their provider is*
- *customers could have different protections for different products and services received from the same supplier*
- *businesses could face different paths to market entry, and different regulatory obligations, which could distort outcomes in the market.*[113]

A.1.3 Consumer protections for behind the meter electricity supply

In December 2015, the COAG Energy Council established the Energy Market Transformation Project Team (EMTPT) to consider the issues related to the energy sector transition. On 19 August 2016, the EMTPT published a consultation paper to discuss what consumer protection should exist in the context of products and services which supply electricity that sit behind the meter.

From this consultation process, Ministers noted that the NECF and ACL were generally sufficient for behind the meter products and that an industry-led Code of Conduct would support consumer protections for customers acquiring new energy products and services. They agreed to:

- Write to representative industry groups asking industry to lead the development of a code of conduct for new energy products and services. It was considered that there were benefits in industry taking the lead but that ministers may reconsider whether further regulatory interventions would be required.
- Request the Australian Competition and Consumer Commission (ACCC) to prioritise the investigations of predatory practices of behind the meter sellers, and monitor other consumer protection issues related to the provision of behind the meter energy services.[114]

112 COAG Energy Council, Energy Market Reform Working Group, New products and services in the electricity market, Advice to COAG Energy Council, July 2015.

113 COAG Energy Council, Energy Market Reform Working Group, New products and services in the electricity market, Advice to COAG Energy Council, July 2015.

114 COAG, Energy Market Transformation Bulletin No. 5 - Work program update, 3 August 2017, http://www.coagenergycouncil.gov.au/publications/energy-market-transformation-bulletin-no-05-%E2%80%93-work-program-update

After this work finalised, representative industry groups continued with the discussion of a code of conduct for new energy products and services, and the New Energy Technology consumer code (NET consumer code) is the result of this consultation. Please see appendix a.5.2 for further details.

A.1.4 2025 market design

The COAG Energy Council requested the Energy Security Board to advise on a long term, fit-for-purpose market framework to support reliability of the market. In September 2019, the ESB published an issues paper for stakeholders feedback. The issues paper seeks to modify the National Electricity Market as necessary to meet the needs of future diverse sources of non-dispatchable generation and flexible resources including demand response, storage and distributed energy resource participation.

The issues paper seeks feedback on:[115]

- the possible future scenarios that will be used when assessing option for change
- the assessment framework for evaluating market design options
- the opportunities, challenges and risks that need to be considered as the project looks to identify market design options
- the implications for market design resulting from these opportunities, challenges and risk.

The Commission's work in relation to consumer protections for new energy products and services will complement the ESB Post 2025 Market Design by identifying if, and how the NECF, in particular could be updated and the specific areas that might require modification.

A.2 Australian Energy Regulator

A.2.1 Regulation of alternative energy sellers

The AER has also considered the issue of how the energy framework relates to emerging products and services in the electricity retail market.[116] On 14 October 2013, the AER published an issues paper focussing on its responsibility to regulate anyone who sells energy and administering retailer authorisations and exemptions. The AER agreed a final position on regulating energy sellers and on 2 July 2014, published its final statement of approach for energy selling by alternative energy sellers and an industry guidance for solar power purchase agreements.[117]

The AER's final statement of approach concluded that a retailer authorisation is likely to be required if the seller meets any of the following criteria:

- is the primary source of energy to the premises of a small customer
- is selling energy to premises across multiple sites

115 ESB, Post 2025 market design issues paper.

116 AER, Regulation of alternative energy sellers review, October 2013, https://www.aer.gov.au/retail-markets/retail-guidelines-reviews/regulation-of-alternative-energy-sellers-review-october-2013

117 AER, Alternative energy sellers, final statement of approach, July 2014; AER, Industry guidance: solar power purchase agreements, July 2014.

- is registered in the wholesale market for the particular fuel source and is the financially responsible retailer for the particular premises.[118]

Also, the AER considered that an alternative energy seller is not bounded by the obligations under the National Energy Retail Law if an exemption is granted for particular circumstances. A retail exemption may be granted if:

- it provides a supplementary or add-on service to customers who are purchasing energy from an authorised retailer
- the energy provided by the seller is part of bundled service and forms an insignificant part of the contract.[119]

It is worth noting that the exemption framework was challenged later with the entrance of embedded networks to the market, see appendix b.3. The Commission found that the exemption framework was no longer fit for purpose in the face of the growth in the number and scope of embedded networks.[120]

A.3 Australian Energy Market Commission

A.3.1 Power of choice review

On 20 November 2012, the AEMC published the *Power of choice review* final report. This review identified opportunities for consumers to make more informed choices about the way they use electricity. The Commission found that consumers require a number of tools - information, education and technology, and flexible pricing options - to make efficient decisions and to actively participate in the market. The AEMC recommended amending the NECF to include a framework which governs third parties (non-retailers and non-regulated network services) providing demand management services to residential and small business consumers.

The Commission considered that this framework should outline which aspects of the National Energy Retail Rules (NERR) apply, and in what circumstances. The final report concluded that the relevant elements of the NERR that may apply at a minimum include:

- consumer contract arrangements
- marketing and sales provisions
- informed consent
- dispute resolution schemes
- privacy, data sharing and data security.

The key issues raised by stakeholders on how these services will be treated included:

- Retail energy services extend beyond simply the essential service of the sale and supply of electricity. There should be a broad review of what constitutes the sale of electricity and what elements of the NECF should be amended.

118 AER, Alternative energy sellers, final statement of approach, July 2014.
119 AER, Alternative energy sellers, final statement of approach, July 2014.
120 AEMC, *Review of the regulatory frameworks for embedded networks*, final report, 28 November 2017.

- Whether the ACL protections are sufficient and there is no need to amend the NECF.
- The need to clarify the definition of energy services.[121]
- The need to review third-party responsibilities given that there is the potential to create consumer confusion in regard to business models and arrangements for communicating with consumers.[122]

The AEMC concluded that the issues related to definitions, development and regulation of an energy services market require further consideration, and assessment and development of an agreed policy framework. By the time the Power of choice review final report was published, the SSCER was considering some of these issues under the *Smart meter consumer protection and safety review*. The Commission supported this review and mentioned that if required, it will consult with stakeholders to consider a reasonable approach to address some of these issues.

A.3.2 Multiple trading relationships rule change request

In February 2016 the AEMC published a final rule determination to not make a rule in relation to the multiple trading relationships (MTR) rule change request from AEMO.[123] The rule change request aimed to better enable MTR by implementing a new framework that removed the need for a customer to establish a second connection point and therefore reduce the cost of engaging another retailer. However, the Commission decided not to make a rule as the cost of implementing the proposed framework across retailers and distributors was likely to outweigh the benefits.

The Commission considered in the final determination that the ability for customers to engage with multiple retailers was desirable as it may encourage improved competition in retail markets and greater choice for customers through the delivery of new and innovative energy services. The final determination identified that the rules do not expressly provide clear guidance regarding the roles and responsibilities of parties where a customer engages two retailers at a premise. Though the Commission noted at the time that the current rules were sufficient and that no amendments were necessary.

With the expected rise in electric vehicle use, the Commission will reassess whether the current rules provide enough guidance in relation to situations in which a household might have a second retailer selling them energy but not as an essential service. This issue will also be considered within 2020 Retail Competition Review on how retail competition influences innovation relating to electric vehicles.

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121 The AER stated that there is need to clarify the treatment of energy services. The AER suggested that the NECF, as it currently stands, may not be appropriate arena to address this issue given that the NECF was designed around the sale of electricity to residential customers. Rather, the AER suggested that this issue should be dealt with in the NER or in primary legislation as this would also capture industrial and commercial consumers. The Commission considered that it was sensible to develop some clarity on the definition of energy services but that there was a clear distinction between services that affect the consumer's ability to get a reliable supply of electricity (that is services that include potential for disconnection) and those services that provide information and increase capability on how to manage consumption. AEMC, *Power of choice - giving consumers options in the way they use electricity*, final report, p. 43.

122 AEMC, *Power of choice - giving consumers options in the way they use electricity*, final report, 30 November 2012.

123 MTR refers to the ability of a customer to engage with multiple retailers at a single premise.

A.3.3 Review of regulatory arrangements for embedded networks

The Commission carried out two reviews into the regulatory arrangements for embedded networks. The first review found that the current regulatory arrangements for embedded networks are no longer fit for purpose, given the growth in the number of embedded networks and businesses providing services in this sector. The AEMC concluded that the current regulatory frameworks did not strike an appropriate balance between innovation, consumer protection and facilitating access to retail market competition.[124] The Commission made final recommendations that, if implemented, would provide embedded network customers with appropriate levels of access to retail competition and consumer protections.

Following on from the first review, the Commission undertook a second review and on 20 June 2019 published the final report *Updating the regulatory arrangements for embedded networks*. In this report, the Commission presented a package of law and rule changes that, if implemented, will apply to new embedded networks. The new regime seeks to improve consumer protection and access to retail market competition for embedded network customers by extending many of the arrangements for grid-supplied customers to embedded network customers.[125]

A.3.4 Review of regulatory arrangements for stand-alone power systems

In September 2019, the Commission commenced a review into the regulatory frameworks for stand-alone power systems. This review was split into two priorities. Priority 1 was to develop the regulatory frameworks to allow DNSPs to provide current grid-connected customers with stand-alone power systems as an alternative to grid supply. Priority 2 is to develop the regulatory frameworks for stand-alone power systems (SAPs) supplied by parties other than the local DNSP.

On 30 May 2019 the Commission published a final report with the final recommendations for a regulatory framework to allow stand-alone power systems to be used by distributors (priority 1) in the NEM as an alternative to standard grid supply. The suite of recommendations seeks to preserve consumer protections comparable to those afforded to customers supplied via grid. This priority was particularly considering that under the recommendations DNSPs will be able to transition a customer if it is more efficient. To allow these efficiencies in the market, customers will receive equivalent consumer protections, reliability and quality of energy supply as when they were connected to the grid.[126]

On 31 October 2019, the AEMC published a final report on the provision of stand-alone power systems by parties other than local distributors (priority 2). The approach set out in this priority 2 final report for third-party SAPS aims to provide a more flexible framework capable of accommodating the broader range of providers and circumstances that could be associated with third-party systems.[127]

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124 AEMC, *Review of regulatory arrangements for embedded networks*, final report, 28 November 2017.
125 AEMC, *Updating the regulatory frameworks for embedded networks*, final report, 20 June 2019.
126 AEMC, Review of the regulatory frameworks for stand-alone power systems, final report (priority 1), 30 May 2019.
127 AEMC, *Review of regulatory arrangements for stand-alone power systems,* final report (priority 2), 31 October 2019.

In contrast to priority 1, customers in priority 2 will generally be making a choice to transition to third-party provision or to move to premises supplied by a third-party system. Additionally, there is potential for a wide breadth of third-party SAPS with many variations in size, and the risk posed by the stand-alone power systems, as well as ownership structures and operating models.[128] To meet these requirements, the Commission is developing a tiered framework that would provide appropriate protections for consumers, but with these applied proportionately.

A.3.5 2019 Retail energy competition review

The Commission has noted that the evolving nature of the energy market provides an opportunity to consider whether the existing energy specific consumer protection framework continues to meet its objective.[129] As a first step, in the 2019 Retail competition review the Commission mapped the consumer protection elements under the NECF and the ACL.

The consumer protection mapping identified five broad categories of protection under both frameworks that are available to energy consumers as follows:

- the contract (contract terms provisions)
- marketing and offers obligations and additional information requirements
- service standards and quality provisions
- complaints and dispute resolution procedures (ombudsman schemes)
- additional protection (financial difficulty, disconnection/reconnection, life support equipment).

In relation to specific areas of consumer protection, the Commission made a number of recommendations for governments and market bodies to:

- support the continued evolution of the market
- assist consumers in seeking information to allow them to make more informed decisions
- improve consumer protections.

The Commission concluded that the NECF generally complemented the ACL well to provide energy consumer protections. However, the Commission noted weaknesses in two areas:

1. The combination of the development of a range of new, non-traditional energy related products and services with the specific application of the NECF to the sale of energy means there is a need to assess if (and what) consumer protections should apply to these new services
2. The information related provisions in the NECF are prescriptive and may prevent innovation in relation to digital technologies.

128 AEMC, *Review of regulatory arrangements for stand-alone power systems*, final report (priority 1), 31 May 2019; AEMC, *Review of regulatory arrangements for stand-alone power systems,* final report (priority 2), 31 October 2019.

129 AEMC, 2017, 2018 and 2019 Retail energy competition reviews, final reports.

A.3.6 Wholesale demand response mechanism rule change

On 18 July 2019, the Commission made a draft rule and draft determination on the *Wholesale demand response mechanism* rule change request.[130] The draft rule would introduce a wholesale demand response mechanism in the NEM. Specifically, it introduced a new market participant category, a demand response service provider (DRSP), that would be able to sell demand response in the wholesale electricity market.

Notably for this review, the draft rule prohibited DRSPs from providing demand response for small customers. In the draft determination, the Commission did not consider that it would be appropriate to allow small customers to participate in the wholesale demand response mechanism given that a holistic analysis on consumer protections is needed.

The draft determination noted that small consumers will continue to be able to participate in wholesale demand response as they do under the existing arrangements (see section 2.2.1).

Please see chapter 3 for further discussion on some of the issues for the provision of demand response by small customers.

On 5 December 2019, the Commission extended the time for making the final rule and final determination for the Wholesale demand response mechanism rule change request until 11 June 2019. This extension followed the provision of supplementary information by AEMO on implementing the proposed mechanism.

A.3.7 2019 Electricity networks regulatory framework review

Integration of distributed energy resources (DER) is one of the AEMC's priorities for 2019-20. DER will be a key part of the future Australian electricity system and it needs to be integrated efficiently to benefit all electricity customers, regardless of whether they have access to DER or not. In the 2019 Electricity networks regulatory framework review (ENERF) final report, the Commission sought to place important and necessary actions and regulatory reforms to integrate DER into the electricity market and optimise benefits for all electricity system users.

In this report, the Commission identified the following 'tools' to integrate DER and optimise benefits for all customers:

- Customer reward pricing: efficient network consumption pricing would allow DER owners to maximise the benefits from their investment.
- Distribution system access and connections: customers' interactions with the electricity system will be more diverse in the future, the regulatory framework needs to accommodate this diversity of use and enable DNSPs to develop and price new services that meet the evolving need of consumers.
- Information to enable decision-making: having 'live' and more granular energy data could greatly assist consumers in managing their own energy usage and/or operation of their DER.
- Maintaining security and reliability: this change in generation mix brings challenges on technical integration for DER into the electricity system.

130 AEMC, Wholesale demand response mechanism, draft determination, 18 July 2019.

As technology improves and becomes cheaper and more accessible, and appropriate consumer protections are developed, services such as network support and demand response are likely to be provided to a greater extent by small customers. DER will play an important role in this future and will enable consumers to take advantage of, and benefit from, the changes in the electricity system.[131]

A.4 Finkel review

In 2017, the *Finkel panel independent review into the future security of the national electricity market* (Finkel Review), recommended the COAG Energy Council requests a comprehensive review of the National Electricity Rules by end-2020 with a view to streamlining them in the light of changing technologies and conditions.[132] The concerns in the Finkel Review were related to the ability of market governance arrangements to respond effectively to the rapid changes in the NEM.[133]

A.5 Industry representatives and ACCC

A.5.1 Solar retailer code of conduct

In April 2013, the Clean Energy Council (CEC) submitted a draft of a voluntary code of conduct to the ACCC for solar PV retail business in representation of Australia's renewable energy and energy efficiency industry. On 25 September 2013, the ACCC granted the application for authorisation for 5 years. On 17 April 2015 the CEC sought to have the authorisation revoked and substituted by a revised version of the code.[134] The approved code of conduct seeks to improve consumer trust when buying solar systems (solar PV and batteries) and deals with matters relating to its marketing and sale. The *Solar Retailer Code of Conduct* (solar code of conduct) is a way for solar businesses to show their commitment to responsible sales and marketing activities and solar industry best practice.[135] It is a voluntary scheme for retail businesses selling solar PV systems to households and businesses.

Below are some categories and areas the solar code of conduct includes to protect consumers when buying solar systems:

- advertising and promotion practices requirements
- direct marketing and sales provisions
- quote/offer requirements
- contract requirements
- warranties and consumer guarantee rights
- payment and finance requirements.

131 AEMC, Electricity networks regulatory framework review, final report, 26 September 2019.

132 Finkel 2017, *Independent Review into the Future Security of the National Electricity Market: Blueprint for the future,* June 2017, recommendation 7.7., p. 172, https://www.energy.gov.au/government-priorities/energy-markets/independent-review-future-security-national-electricity-market.

133 Ibid, p. 171.

134 The revised code contained new provisions regarding consumer finance, grid connection procedure and privacy. It also contains an amended fee structure.

135 CEC, Solar retailers code of conduct, 23 September 2015.

The solar code of conduct does not replace the existing consumer and energy specific regulations, rather, it only aims to complement and improve standards of service in the solar industry by those who join voluntarily. Signatories must be able to demonstrate compliance with the code and CEC investigates all reported breaches of the solar code of conduct. Where a major breach has occurred, signatories have an opportunity to rectify the breach and if it is not rectified, the breach will be publicly listed on the CEC website and as a maximum sanction, the retailer could be removed as a signatory of the code.[136]

Additionally, the code specifies that the CEC is not a dispute resolution body and therefore, it cannot support consumers when solving any issues related to these products.

A.5.2 New Energy Tech Consumer code

On 5 December 2019 the ACCC approved the NET consumer code submitted by the CEC, the Australian Energy Council (AEC), the Smart Energy Council (SEC) and Energy Consumers Australia (ECA). The code sets minimum standards of good practice and consumer protection for new energy technology consumers (i.e. solar generation systems, energy storage systems, electrical vehicle charging and other emerging energy products and services).

This code was proposed in response to the request from the COAG Energy Council to develop the originally called, Behind the meter code (as outline in section 3.1.2).[137] The key aspects for consumer protection in this code are similar to the Solar code of conduct. The following list includes these categories, but the last three are additional requirements not included in the Solar code of conduct:

- marketing and sales provisions
- quoting requirements
- contract requirements
- warranties and consumer guarantee rights
- customer information provision requirements
- installation, safety and activation requirements
- customer service and complaints handling.

A.5.3 Contemporary consumer protections

Energy Consumers Australia (ECA) published a framing paper to consider reform consumer protection frameworks. The paper

- outlines the rationale for consumer protection, how consumer protections deliver economic and social benefits
- discusses regulatory options over scope and form of consumer frameworks
- summarises key results of a research on consumers' views of the energy market

136 CEC, Solar retailer code of conduct, October 2015, section 3.6.

137 CEC, New energy tech consumer code application, attachment C.

- reviews the concept of 'responsive regulation' and considers how it could be applied to energy markets
- includes questions about the future of consumer protections in the energy market.

The paper identified three considerations in the evolution of consumer protections for energy services:

- optimal approaches to providing consistency of consumer rights in the acquisition of all energy services
- the potential of the extension of external dispute resolution schemes to cover all energy service transactions (ombudsman schemes)
- the value of a wider use of responsive regulation, including enforceable voluntary codes.[138]

A.6 The Australian Government and ACCC

On 26 November 2017, the Australian Government announced the introduction of a consumer data right (CDR) in Australia. The CDR seeks to:

- improve consumers' ability to compare and switch between products and services
- encourage competition between service providers, leading not only to better prices for customers but also more innovative products and services.

The government determined that the CDR will first apply to the banking sector, followed by the energy sector. With the introduction of the CDR, it is expected that consumers will be able to give the relevant authorisation for third party to access their data and help them make decisions on the options available in the market and to find an offer that best suits them. For example, customers could be provided with the lowest market offer available given their consumption profile, advice on solar and battery take-up, or the provision of bill checking services.[139]

138 Energy Consumers Australia, *Contemporary consumer protection in energy,* Framing paper, November 2019.

139 AEMC, *Bill contents rule change*, final determination, 11 July 2019.

B CASE STUDIES

Several case studies are useful in exploring experiences to date where the elements of the regulatory framework are challenged. Below a brief description for:

- Power purchase agreements
- Stand-alone power systems
- Embedded networks
- Bulk hot water

B.1 Power purchase agreements

As set out in Chapter 3, in 2014 the AER issued a statement of approach regarding the need for a retail authorisation to sell energy for providers of solar PV under power purchase agreements. A solar power purchase agreement (SPPA) is a financial arrangement in which a business provides, installs and maintains, at no initial cost, a solar panel system to a customer and in exchange, the customer buys the energy provided by the solar panels for an agreed price (usually below that which would be charged by an electricity retailer) for an agreed period. Any electricity that is not used is exported into the local electricity network and the customer will usually get the benefit of any feed-in tariff.

The AER considered that energy sold through SPPAs is discretionary and additional to the energy sold to customers by an authorised retailer.[140] Both the retailer and SPPA provider sell energy, but the nature of the service is different, as is the relationship between these energy sellers and their customers. The AER considered a key difference is the impact that disconnection of energy services would have on a customer. Disconnection by a retailer means discontinuing network distributed energy to that customer and leaving them without energy supply. In contrast, a customer whose supply from an SPPA provider is disconnected will still have access to network distributed energy and hence, will still have reliable energy supply.[141]

B.2 Stand-alone power systems

While the above case studies provide examples of where the existing NECF coverage has been too broad there are also examples where it has proved to be too narrow. Customers transitioned from NEM connected supply to stand alone power system supply by DNSPs are one such case. A stand-alone power system (SAPS) is an electricity supply arrangement that is not physically connected to the national grid. The Commission uses the term to encompass both microgrids, which supply electricity to multiple customers, and individual power systems, which relate only to single customers.

In May 2019, the Commission published a final report on its Review of the regulatory frameworks for stand-alone power systems – priority 1. In this case, the Commission was

140 AER, *Regulation of alternative energy sellers under the NERL*, Statement of approach, June 2014, p. 9.
141 Ibid.

assessing the appropriate consumer protections for customers being transitioned from NEM connected supply to a SAPS by a DNSP. The Commission recommended that the existing energy-specific consumer protection framework, including national consumer protections in the NECF and jurisdictional consumer protections, be extended to such customers. Crucial to the Commission's decision was that these customers supply of electricity would be solely through the SAPS and that the transition was occurring as a substitute for grid supplied energy at the DNSPs choice.[142]

On 31 October 2019, the AEMC published a final report on the provision of stand-alone power systems by parties other than local distributors (priority 2). The approach set out in this priority 2 final report for third-party SAPS aims to provide a more flexible framework capable of accommodating the broader range of providers and circumstances that could be associated with third-party systems.[143]

B.3 Embedded networks

Embedded networks are private electricity networks – that is, they are owned and operated by parties that have been exempted from the requirement to register with AEMO – which serve multiple customers and are connected to the interconnected electricity system. Generally, the embedded network provider purchases electricity at the parent connection point and on-sells it to customers at child connection points within the embedded network. On-selling entities must hold a retailer authorisation and comply with the NECF, or be exempted by the AER from having to hold a retailer authorisation.

In the past, the AER generally granted retail exemptions to embedded network providers selling electricity within embedded networks. However, over time the number of embedded networks and customers within them grew substantially – from around 500 in 2014 to around 2,500 in 2018.

The Commission reviewed the regulatory frameworks for embedded networks in 2017 and 2018 and found that they were no longer fit for purpose. The Commission considered the lesser consumer protections under the exemptions were not fit for purpose given the essential service nature of the supply of electricity to customers within embedded networks. The Commission noted that there were significant barriers to embedded network customers receiving electricity from any supplier other than the embedded network provider.

The Commission noted that the exemptions framework was not adequately addressing key consumer protection issues for embedded network customers, including:[144]

- Access to rebates and concessions
- life support and outage notifications
- accurate billing
- reliability of supply

142 AEMC, R*eview of the regulatory frameworks for stand-alone power systems*, final report (Priority 1), 30 May 2019.
143 AEMC, *Review of regulatory arrangements for stand-alone power systems*, final report (priority 2), 31 October 2019.
144 AEMC, *Updating the regulatory frameworks for embedded networks*, final report, p. v.

- connections
- safety
- access to dispute resolution through ombudsmen schemes
- enforcement and compliance with the exemption conditions

As a result of these substantial issues the Commission recommended that most embedded network providers going forward be required to comply with the NECF through retail authorisation.[145]

B.4 Bulk hot water

New apartment buildings, usually high rise buildings, have common hot water systems to heat water in a centralised water plant and distribute it to each unit instead of having individual heaters (known as, bulk hot water). This service is being provided to consumers by energy retailers and embedded network operators. The provision of this service has created consumer confusion as it is not clear if it is an energy service, how it is charged and if the NECF is applicable.[146]

The NECF does not provide a definition for 'sale of energy' or if it is limited to the supply of electricity and gas.[147] Under the NECF it is not clear if the sale of bulk hot water is a sale of energy. Hot water is being provided to customers, in some cases, by energy market participants (authorised or exempted sellers) however, this does not mean that this service should necessarily be covered by the regulatory framework under the energy laws and rules.[148]

Different energy bodies have provided different regulatory approaches to bulk hot water. For example, the AER states in their retail guidelines that the sale of bulk hot water cannot be considered a 'sale of energy' under the NERL and the NERR.[149] AEMO, without mentioning if the sale of hot water is sale of energy or not, provides in their retail market procedures information on how to calculate energy for hot water (common factor) and a hot water meter definition.[150]

Even though the AER has determined it is not the sale of energy, other positions are taken to the treatment of bulk hot water. For example, some retailers are including their own definition of bulk hot water in their contracts and applying the contract terms and conditions of a standard retail contract. For example, in the contract terms and conditions of a bulk hot

145 AEMC, *Updating the regulatory frameworks for embedded networks,* final report, 20 June 2019, p. vi.

146 AEMC, 2019 Retail energy competition review, final report, 28 June 2019.

147 NERL, Section 88.

148 In 2006, Victoria modified the Energy Retail Code to introduce bulk hot water definitions and billing requirements. Energy RetailCode, Part 1, Division 1; Part 2, Division 4, section 20A; Schedule 6, bulk hot water formulas.

149 "Energy selling covers a wide range of activities, from energy retailing by authorised retailers to households and businesses to landlords recovering energy costs from their tenants. Energy 'sales' do not necessarily have to be for profit—even passing on energy at cost to another person is a sale. But we do not consider energy is being sold where energy costs are only one part of another fixed charge (for example, a hotel tariff or rent that includes energy costs), or where the costs are shared (for example, in a group house or a community facility)". AER, Retail Exempt Selling Guideline, March 2018.

150 AEMO, Retail Market Procedures (NSW and ACT) version 20 (Clean) — Effective 14 December 2018

water contract, retailers are including as a requirement that this service must be consistent with the NERL, NERR and the standard retail contract.[151]

151 Under these contractual arrangements, most bulk hot water consumers are paying standing offer prices. "Bulk Hot Water System" means the system by which water is centrally heated by gas and delivered to multiple premises located within the premises, but does not include the Meter. EnergyAustralia, Terms and Conditions,www.energyaustralia.com.au/sites/default/files/legacy/817/740/bhw_final_ts_and_cs_28062016.pdf

C AER'S POLICY PRINCIPLES, EXEMPT SELLER AND CUSTOMER RELATED FACTORS

The current definition also includes an exemption power to allow businesses that sell energy to be exempted from having to comply with the NECF by the AER. The AER is empowered to design consumer protections requirements for businesses which have been granted exemptions. For individual exemptions applications, the AER consider the policy principles, exempt seller related factors and customer related factors specified in the NERL.[152]

The **exempt selling policy principles** require that customers of exempt sellers must not be unreasonably disadvantaged compared to customers of authorised retailers. These principles are as follows:[153]

- The regulatory arrangements for exempt sellers aims to give exempt customers protections equivalent to those of retail customers.[154] However, there are certain requirements under the NERL and the NERR that may be more onerous or inappropriate for exempt sellers and a degree of regulatory divergence is unavoidable.
- Exempt customers should be afforded the right to a choice of retailer in the same way as comparable retail customers in the same jurisdiction have that right.[155]
- Exempt customers should receive the same customer protections as customers of authorised retailers.[156]

The **exempt seller related factors** that the AER may take into account in performing or exercising its exempt selling functions are as follows:

- whether selling energy is or will be a core part of the exempt seller's business or incidental to that business
- whether the exempt seller's circumstances demonstrate specific characteristics that may warrant exemption
- whether the exempt seller is intending to profit from the arrangement
- whether the amount of energy likely to be sold by the exempt seller is significant in relation to national energy markets
- the extent to which the imposition of conditions on an exemption, or to which the requirements of other laws, would allow appropriate obligations to govern the applicant's behaviour rather than requiring the applicant to obtain a retailer authorisation
- the likely cost of obtaining a retailer authorisation and of complying with the NERL and the NERR as a NEM retailer compared to the likely benefits to the exempt customers of the exempt seller
- any other seller related matter the AER considers relevant.

152 NERL, sections 114-116.
153 AER, (Retail) Exempt selling guideline, version 5, March 2018.
154 NERL, Section 114(1)(a).
155 NERL, section 114(1)(b).
156 NERL, Section 114(1)(c).

The **customer related factors** that the AER may take into account in performing or exercising its exempt selling functions are as follows:

- whether the characteristics of the exempt customers or the circumstances in which energy is to be sold to them by the applicant are such as to warrant exemption
- the extent to which the imposition of conditions on an exemption, or to which the requirements of other laws, would allow the exempt customers access to appropriate rights and protections rather than requiring the applicant to obtain a retailer authorisation
- any other customer related matter the AER considers relevant.[157]

The AER has discretion in developing and applying the (Retail) Exempt Selling Guideline and to set the exemption conditions.[158]

157 AEMC, Updating the regulatory frameworks for embedded networks, draft report, 31 January 2019.

158 The retail exemption conditions are for both electricity and gas selling and relate to five key areas: information provision; dispute resolution; pricing; access to retail competition; and consumer protections.