



Australian Energy Market Commission

FINAL REPORT

**2020 RETAIL ENERGY COMPETITION
REVIEW**

30 JUNE 2020

REVIEW

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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EXECUTIVE SUMMARY

- 1 The Retail energy competition review is an annual review of the state of competition in the retail energy market and the outcomes that consumers are achieving from it. It is an important tool for the Australian Energy Market Commission (AEMC or Commission) to map retail market progress over time and identify priorities for retail market reform.
- 2 This year's review covers three main topics:
 1. The retail market under COVID-19 pandemic (the pandemic) conditions. Using a consumer experience map, the Commission traces through the effects of the pandemic on consumers, retailers and the market as a whole. The Commission recommends changes to regulatory frameworks to improve consumer protections and enhance retail market financial resilience in the immediate term, and in the long term for future shocks.
 2. The retail market of the future. The Commission analyses how the retail market is changing based on new technology and digitalisation. The Commission assesses regulatory changes needed to make consumer protections fit for purpose in that future and analyse how electric vehicles are being integrated into the market.
 3. Outcomes in the retail market in 2019. The Commission uses a structure-conduct-performance framework to assess the outcomes that retailers and consumers have achieved in the market over the past year. While the retail market continued to become more competitive and consumers benefited from a wider range of products and services, the Commission considers there is a need to closely monitor future progress following the pandemic and major recent regulatory changes.

THE RETAIL MARKET UNDER PANDEMIC CONDITIONS

- 3 In the last four months energy consumers and retailers have been heavily influenced by the pandemic. Figure 1 provides an overview of the Commission's approach to analysing how consumers and retailers have been affected, and how this has been influenced by the regulatory framework and government actions. Based on this analysis, the Commission recommends changes to improve consumer protections and resilience in the retail energy market immediately and in the longer term.

Figure 1. Overview of the consumer and retail energy market experience during COVID-19

**COVID-19:
baseline retail
market
measurements**

Chapters 2, 3, 4, 5 and 6 of this report look at the retail energy market environment, structure, conduct, and performance for retailers and consumers over the past 12 months. The analysis in these chapters is based on market data collected prior to the impacts and restrictions imposed as a result on COVID-19. These chapters will form the base for future reviews to assess the impacts of COVID-19 on the retail energy market.

1. Customer experience

Customers have difficulty paying energy bill and contact their retailer



2. Retailer impacts

Retailers have increased costs and customer debt, and reduced revenue



3. Retail market financial stability

Retailers may default on payments for network and wholesale costs

Impacts	Existing framework	New measures announced	Analysis & Recommendations
<p>Consumer in financial distress experience:</p> <ul style="list-style-type: none"> Loss of employment / reduced income Increased energy usage at home Shut down of businesses. 	<p><u>Hardship framework</u>, assists customers with difficulties paying their energy bills.</p> <p><u>Existing government payment assistance schemes</u>.</p>	<p><u>Commonwealth and Jurisdictions respond</u> with boosts to welfare and government payment assistance schemes.</p> <p><u>AER's 'Statement of Expectations'</u>, including: Do not disconnect any small customer without their permission before 31 July.</p>	<p>The Commission supports the actions taken by the AER and jurisdictional governments to increase assistance to vulnerable consumers.</p> <p>Recommendation 6: Protecting small customers in embedded networks.</p>
<p>Increase volume of customers seeking hardship status.</p> <p><u>Resilience to impacts will differ between retailers:</u></p> <ul style="list-style-type: none"> Hedging strategy may leave retailers over-hedged Profitability prior to pandemic Corporate structure and cash flow. 	<p><u>Retailer payment processes</u>. Retailers pay networks and wholesales costs before receiving payment from customers. Retailers wear 100% of risk of cash flow and customer non-payment.</p>	<p><u>ENA's support package</u>, including rebate and defer network charges for COVID-19 impacted residential and small business consumers.</p> <p><u>AER rule change request</u>. Defer network charges for six months.</p> <p><u>AEMO rule change request</u>. Defer 5MS implementation.</p>	<p>In assessing these rule change requests, the Commission will consider the analysis on risk allocation, financial assistance measures, the ENA relief package and the AER's Statement of Expectations.</p> <p>Action 1: For the AEMC to review the effectiveness of cash flow burden sharing.</p>
<p><u>Risks for participants:</u></p> <ul style="list-style-type: none"> Cash flow risk Settlement risk Market risk Credit risk. <p>Financial interdependencies in the NEM.</p> <p>Greater risk of contagion spreading among retailers.</p>	<p><u>Retailer of last resort (ROLR) framework</u> requires designated ROLRs to supply electricity to customers from failed retailers.</p>	<p><u>Advanced notice of retailer distress</u>. The AER has significantly increased the frequency with which it collects information on the number of customers on payment plans and hardship arrangements and the level of customer debt.</p> <p>Recommendation 4: COAG Energy Council to consider short term market stability measures.</p> <p>Recommendation 5: Advanced notice of retailer distress.</p>	<p>Recommendation 1: Remove requirement for small customers of a failed retailer to be placed on the default offer of the ROLR.</p> <p>Recommendation 2: NEM financial market resilience review - Recommended changes to the existing Retailer of Last Resort scheme.</p> <p>Recommendation 3: The ROLR regime to be removed from the NERL and included in the NERR.</p>

The impact of COVID-19 on the economy

4 The World Health Organisation (WHO) declared a pandemic on 12 March 2020. The Commonwealth Government started closing borders in early February, and by mid March jurisdictional governments started closing non-essential services and imposing social distancing measures. The impact of the shut down has led to significant effects on energy consumers:

- Residential consumers have faced a combination of higher unemployment and underemployment, lower average incomes and income uncertainty.
- Residential consumers have higher consumption, and this is likely to increase over winter months as households require heating loads for longer periods of time while working from home. Victorian distribution businesses recorded a 21 per cent increase in residential electricity demand in April and May 2020 compared to 2019.
- Small business consumers have commonly been required to enter hibernation while the shut down exists. The ABS reports that almost three quarters of small businesses' cash flow has reduced.

5 Retailers have also faced direct effects from the pandemic. For example, many have needed to move from operating via large international call centres to remote domestic working arrangements. These changes, at least in the short-term are likely to increase retailers costs.

How the broader economic impact effects energy retailers and consumers

6 The most significant effect of the pandemic is an increase in the number of residential and small business consumers which are under financial stress and are therefore likely to face difficulty paying their energy bills. The full extent of this is still largely unknown and will be closely linked to how the health crisis plays out and how quickly the broader economy recovers. The lag between the economic downturn and the effect on the retail market is particularly prominent because most small consumers pay bills three months in arrears. It is therefore only now that many consumers will be having to pay their electricity bill under lower income and higher consumption conditions.

7 The Commission, the Australian Energy Regulator (AER) and the Essential Services Commission (ESC) of Victoria have been working closely with industry to provide up-to-date data on consumer and retailer financial stress indicators. The AER and ESC have issued voluntary data requests to retailers to gather data on consumer debt, payment plan numbers, hardship numbers and call centre enquiries on a weekly basis. The Commission encourages industry to promptly provide this data and for the AER and ESC to publish data regularly to the extent possible. This is important to allow informed analysis and policy decisions.

How the direct effects of COVID-19 then influence interactions between consumers and retailers

8 The national electricity market (NEM) has established regulatory frameworks that govern the interaction between consumers and retailers when consumers experience financial stress. The main mechanisms include payment and hardship plans, government energy assistance

payments and restrictions around disconnections for customers facing payment difficulties due to hardship. These protections are even more important during the pandemic to support customers to allow them to work and access various services from home.

- 9 Governments and the AER have enhanced programs to protect and assist consumers under pandemic conditions. Most notably:
- the Commonwealth government has introduced the Jobkeeper program and doubled payments under the Jobseeker program
 - jurisdictional governments have substantially increased payments and accessibility to their respective energy assistance payments
 - the AER issued a statement of expectations during the pandemic which outlines that it expects retailers to not disconnect small customers for non-payment and be proactive in promoting and allowing access to payment plan and hardship programs.

- 10 The Commission supports the actions taken by the AER to increase protections from disconnections under pandemic conditions. The Commission also supports the actions taken by jurisdictional governments to increase assistance to vulnerable consumers. However, due to the unprecedented nature of this crisis, the Commission considers that where jurisdictions have been able to test whether the mechanisms they use to deliver assistance are robust under crisis conditions, this provides them with a useful benchmark against which to consider whether redesign of their assistance mechanisms are warranted.

The stresses that these interactions place on individual retailers

- 11 Electricity retailing is a relatively high-volume, low-margin industry. Electricity retailers carry the credit and cash-flow risks for the entire electricity sector. On average, across the NEM, for every \$100 of revenue received or owed to retailers they must pay: \$43 in network charges to network businesses, \$33 in wholesale purchase costs to generators, \$8 to meet the costs of various environmental obligations, and \$11 in their own retailing costs.¹ This leaves retailers an average margin of \$4. A relatively small increase in the number of non-paying customers could quickly place some retailers in a position where their cash-flow is negative (that is, where their revenue falls short of their expenses).
- 12 The combination of the increase in consumer financial distress and the increased regulatory obligations to continue to supply customers with electricity may place significant financial stress on energy retailers. The level of stress individual retailers face will depend on a combination of their profitability prior to the crisis, corporate and financial structure, hedging strategy and customer characteristics.
- 13 The Commission has conducted high-level scenario modelling to test the resilience of the retail market to changes in consumer late and non-payment under pandemic conditions. The combination of retailers bearing the cash flow risk for the entire supply chain and retailing being a high volume, low margin business, means retailers are particularly exposed to increases in late and non-payment by customers.

1 ACCC, Inquiry into the National Electricity Market—November 2019 Report, November 2019.

- 14 In response to the increased financial burden placed on retailers the ENA has put forward a package of measures that provide direct support for affected small business customers impacted by COVID 19. This will assist large and small retailers to support impacted customers. The package includes allowing retailers to defer network charges incurred up until 1 July 2020 for COVID-19 effected customers.²

BOX 1: RISK ALLOCATION

The Commission considers that risks should generally rest with the participants that are best placed to manage them. As the participant with the direct relationship with customers, retailers are best placed to manage the risk of non or late-payment by customers. For example, for small consumers, retailers have developed strategies such as pay on time discounts, late payment fees and advanced payments to manage late payment risks. For large consumers, retailers are able to negotiate terms within their contracts to ensure timely payment (for example, credit support). Retailers may also build in the cost of late or non-payment into their prices. Therefore, having retailers bear this risk, generally represents an efficient allocation of risk within the sector.

As suppliers of essential services, energy retailers enter the NEM with the knowledge that they are required to continue to supply small consumers who do not pay, or pay late, to a greater degree than retailers of most products and services in the economy. These requirements are set out within the hardship and disconnection regulations in the National Energy Customer Framework (NECF). Where retailers are not able to withstand increases in the level of non or late-payment, the Commission generally considers these retailers will exit the market and this is a feature of the competitive process.

However, the unprecedented circumstances presented by the COVID-19 pandemic may justify providing assistance to retailers to manage cash flow risks that are exceptions to the usual efficient allocation of cash-flow risk within the sector. In particular, the AER's Statement of Expectations of energy businesses expects retailers to continue to supply non-paying customers to a greater degree than could have been foreseen by retailers before the crisis.

- 15 Governments and the ENA have reduced the size of this burden through the increase in financial assistance and the ENA relief package respectively. There are also two rule change requests that may further reduce the cash flow burden on retailers. The AER submitted a rule change request to allow retailers to defer payments to electricity networks in relation to customers on hardship programs or other payment plans due to COVID-19. The Commission also received a rule change request from AEMO to delay the implementation of five-minute settlement (5MS) and global settlement as a way of reducing the cash flow and capability burden on the industry during the pandemic. Both these rule changes are being considered.

- 16 **Action 1: the AEMC to review the effectiveness of cash flow burden sharing measures.** In the 2021 Retail energy competition review the Commission will consider the

² For more information on the ENA relief package see

effectiveness of all the cash flow burden sharing measures introduced during the pandemic.

Retail market financial stability

- 17 With retailers facing financial stress under pandemic conditions the Commission has assessed the adequacy of the existing market and regulatory framework to deal with potential retailer failures.
- 18 In order to preserve continuity of supply to customers following the insolvency of a retailer, the National Energy Retail Law (NERL) sets out arrangements which provide for the immediate transfer of the customers of a failing retailer to one or more other retailers that act as a “Retailer of Last Resort” (ROLR). This mechanism has been invoked in the past for the failure of a few small retailers. It has operated smoothly without consequences for the wider market. However, there is the risk of financial contagion from the failure of a large retailer or a number of smaller retailers over a relatively short period, resulting in cascading insolvency across the sector.⁴
- 19 The Commission has used the extensive analysis previously conducted in the NEM financial market resilience review and updated it for the specific conditions under the pandemic. These specific concerns relate to the failure of a retailer or retailers with a large number of customers, due to a significant increase in the number of customers who are deferring or unable to pay their bills. This may:
- heighten risk of the existing ROLR arrangements triggering financial contagion across the sector through the transfer of non-paying customers to retailers who already have a growing number of non-paying customers
 - result in both paying and non-paying customers being automatically placed on the receiving retailer’s standing or default offer contracts, when experience shows that it will take many years for customers to shift onto lower priced market offer contracts
 - reduce competitive pressure on prices generally through the loss of second and third tier retailers who have over recent years been increasing their market shares at the expense of the “Big 3”.
- 20 To address these risks the Commission considers that changes should be made to improve ROLR scheme outcomes for small customers and to enhance the financial market stability of the NEM.
- 21 **Recommendation 1: Remove the ROLR requirement for small customers to be placed on the default offer.** To improve consumer outcomes, if a ROLR event occurs, the Commission recommends that the ROLR regime is amended to remove the requirement for the customers of a failed retailer to be transferred on to the standard retail contract of the designated ROLR. The Commission considers that registered ROLRs should have the ability to submit, for the AER’s approval, a market offer to be used for ROLR customers. This is particularly important because the transfer of customers onto default offers, instead of lower priced market offers, may lead to higher numbers of electricity customers in financial stress seeking access to payment plans and hardship arrangements.

4 See AEMC NEM Financial Market Resilience Final report, 2015.

- 22** **Recommendation 2: NEM financial market resilience review - Recommended changes to the existing Retailer of Last Resort scheme.** The Commission recommends that the ROLR regime be amended, as previously proposed by the NEM financial market resilience review, to reduce the impact of increased cash flow and/or credit support requirements. Those changes included:
1. greater clarity of cost recovery arrangements to give the ROLR greater certainty that it can quickly recover its costs
 2. delayed designation of ROLRs: the AER should be able to delay the designation of a ROLR by 24 hours following a ROLR event, which gives the AER greater ability to appoint multiple ROLRs if appropriate
 3. delayed requirements for the ROLR to provide credit support to AEMO associated with the additional customers.
- 23** **Recommendation 3: The ROLR regime to be removed from the NERL and included in the NERR.** In order to make changes to the ROLR framework included above and over time, the Commission considers that rather than amending the NERL to make the recommended changes, the NERL should be amended to remove the ROLR provisions from it, and the provisions should be included in the NERR through rule changes.
- 24** **Recommendation 4: COAG Energy Council to consider whether additional short term market stability measures are required.** Throughout this crisis, market bodies have provided strategic information and advice to allow the COAG Energy Council to make informed decisions to ensure financial stability. This has contributed to the development of short term response measures across the industry. While these measures will make a major contribution to reducing the risk of financial contagion, increasing market concentration, and poor consumer outcomes that may occur under the current ROLR scheme, it cannot be known ex ante if they will by themselves be effective. Given this, it is important the COAG Energy Council consider whether it is appropriate to introduce additional short term measures to maintain market stability.
- 25** **Recommendation 5: Advanced notice of retailer distress.** The Commission recommends that the AER consider whether a rule change could provide it with an additional ability to gather information to identify risks to retailer financial stability, and if so, submit a rule change request. If submitted, this rule change request would likely formalise and build on information the AER is currently collecting and reporting on a weekly basis. The AER may need to consider whether increased reporting should be ongoing or only when triggered by exceptional circumstances which create heightened risks to market stability.
- 26** Table 1 sets out the combined actions and recommendations provided in the Commission's pandemic analysis.
- 27** **Embedded networks**
The impacts from the pandemic have highlighted risks of consumer harm arising from the inadequate existing consumer protections for embedded network customers. As set out in the Commission's 2019 review *Updating the regulatory frameworks for embedded networks*,

these include deficiencies related to core consumer protections regarding disconnections, access to hardship and concession schemes, ROLR provisions and competition. The recommendations outlined in the review would fix this. However, this is not an option in the short term because the reforms are significant.

28

Recommendation 6: Increased consumer protections for embedded network customers. The Commission recommends that the COAG Energy Council, market bodies and jurisdictional government and regulatory bodies implement the comprehensive package of changes to laws, rules and regulations to protect consumers and improve choice in embedded networks, as recommended in the embedded networks review completed in 2019.

THE RETAIL MARKET OF THE FUTURE

Consumer protections for the future

29

Last year, as part of the 2019 retail energy competition review, the Commission mapped how the Australian Consumer Law (ACL) and the National Energy Customer Framework (NECF) worked together to create a complementary consumer protection framework for energy consumers. In that report we noted that the NECF was created to protect consumers in a market that was different to that which is emerging today.

30

The NECF was developed at a time when generally, energy only flowed to the consumer, and retail offerings were largely homogeneous. This is no longer the case.

31

The energy market is undergoing a transition. Solar PV and batteries allow consumers to import and export energy. There is increasing competition, a trend to digitalisation and diverging consumer preferences. This transition is testing the boundaries of the consumer protections in the NECF.

32

Building on the work done in 2019, this year the Commission has reviewed consumers protections in this evolving energy market. While the retail market evolution is delivering innovation and new energy products and services to consumers, it is important that the customer protections framework also adapts while continuing protect the interest of customers.

33

The Commission has analysed different forms of regulation for their applicability to the evolving energy market. The analysis found that a variety of regulatory approaches could be used to develop a fit-for-purpose consumer protection framework that can accommodate new products and services, while also ensuring potential harms to consumers are minimised. The rate of change in the market presents an opportunity to evolve consumer protections by moving to a principles-based approach in some circumstances.

34

Principles-based regulation brings with it the need to provide guidance on how principles should be interpreted in the interests of consumers. There a range of ways this guidance can be developed, either by the regulator or industry. The decision on who is best placed to carry out this role will depend on the circumstances and the potential harm to consumers.

35

The Commission considers that the growing diversity in the market is likely to require more diversity in the regulatory approaches that are used, to strike the right balance between

facilitating innovation and consumer protection. The Commission will therefore continue to look for opportunities to move to these different regulatory approaches to suit the current and emerging market conditions.

- 36** **Recommendation 9: Greater industry engagement in developing consumer protections through co-regulatory approaches:** The Commission recommends that industry should play a greater role in developing energy consumer protections. In the first instance, this could include trials and testing of industry led initiatives supported by the AER. These trials should inform the process for developing protections, the outcomes for consumers, and monitoring and compliance costs. The design results should therefore inform the design of a framework for regulatory and co-regulatory approaches in the energy sector.
- 37** **Action 2: Future-proofing the application of the NECF:** Given the changes in the energy market, the Commission will continue to explore whether the regulatory tests that define the application of the NECF require changes to appropriately exclude or include new energy market products and services.
- 38 The Commission has decided not to recommend large-scale changes to the NECF at this stage. Since this review commenced, COAG Energy Council has tasked the ESB with considering the move to a two-sided energy market.
- 39 A two-sided market is likely to fundamentally change the way consumers, and retailers or third parties interact. The Commission is leading this work with AEMO on behalf of the ESB and as part of that, it will be important to consider the necessary consumer protections under the new design.
- 40** **Action 3: Consumer protection and a two-sided market:** The Commission will continue to explore the consumer protections that will be required in the two-sided market design. This will form part of the ESB's 2025 market design program and will be based on the analysis of consumer protection regulations, as outlined in chapter 9.
- 41 However, there are two areas that the Commission thinks warrant further action in the near term to improve the consumer experience:
1. The traditional sale of energy
 2. Challenges to the traditional model by new energy products and services.
- 42 These are discussed below.
- 1. Traditional sale of energy**
- 43 The NECF needs to evolve as digitalisation changes the way customers can engage with their retailers and third parties. While not all consumers will want to interact with the market in these new ways, the Commission considers that the NECF needs to be flexible enough to provide consumers with choice in how they engage.
- 44 Under the current NECF there are prescriptive requirements on retailers regarding bills and notices. This includes requirements that bills must contain 24 different items, and many notices must be issued by mail or email. As new phone applications and the roll-out of smart meters allow customers to access information in new and more convenient ways, the

requirements for billing and notices should also keep pace. The Commission considers that this is most likely to be achieved through a principles-based approach to regulation. There may be opportunities for industry to be involved in developing guidance on how customers interact and respond to the current bills and notices. However, while flexibility enabled via a more principles-based approach may be appropriate in relation to a range of issues, there would still need to be prescriptive provisions for other items such as disconnection notices.

45 **Recommendation 7: Notifications of contract changes:** The Commission recommends that a rule change request is developed to change the current NECF notification provisions relating to contract changes to move towards a more principle-based regulatory approach. Details of what should be included in this rule change are provided in chapter 10.

46 The consumer data right (CDR) and new two-day customer switching rules means the rules around explicit informed consent (EIC) and cooling-off periods may also need updating.

47 **Recommendation 8: Explicit Informed Consent:** The Commission recommends the CDR in the energy market introduces a mechanism to allow an authorised third party to act on behalf of a consumer to switch a consumer from one retailer to another (known as 'write' access in the CDR). The Commission will continue to engage with the Treasury, ACCC and Data61 to develop the CDR in the energy market.

48 Should the necessary changes not be made to implement 'write' access in the energy sector under the CDR, the Commission will seek to work with stakeholders towards a proposal to change explicit informed consent (EIC) requirements under the NERL and Rules to allow authorised third parties to switch consumers on their behalf. The Commission also considers it important the Australian Government progresses a previous recommendation from the Commission and the ACCC regarding the regulation of third-party comparator sites.

2. Challenges to the traditional model: new energy products and services

49 New, non-traditional energy products and services, are testing the boundaries of the NECF. These new products include things like solar PV systems, energy storage systems, energy management services, electric vehicles charging services, battery service providers and virtual power plants. These new products and services were not previously contemplated by the NECF.

50 It is important that the application of the NECF is clear enough to determine when a business requires a retail authorisation or exemption. With the fast pace of innovation and new technologies entering the market, there will be new ways in which energy is sold and supplied to customers. Therefore, it is relevant to ensure the scope of the NECF is clear. There is an opportunity to consider when energy-specific protections remain suitable to protect consumers without imposing unnecessary regulation.

51 Further, the Commission has also considered whether some additional forms of redress might be needed for energy related products and services that may fall outside of the consumer traditional 'sale of energy' definition used in the NECF. A consumer who buys new energy products or services may find it difficult to determine if, at the time of purchase, the new product or service will meet their future energy needs. This is particularly the case if

consumers are not well-informed about the effects the new product or service will have on their energy consumption.

52 The Commission has identified that while there is some recourse available to consumers under the ACL in relation to new and emerging energy products and services, the main risk for consumers if things go wrong is not having access to an independent, specialised and timely redress mechanism, such as energy Ombudsman schemes. This could be addressed by extending the jurisdiction of energy Ombudsman schemes to deal with some matters related to new energy products and services that are not otherwise covered by the NECF. The New Energy Tech Consumer Code (NETCC) provides a mechanism for this to be explored and implemented (a voluntary industry code).

53 Recommendation 10: Dispute resolution mechanism for new energy products and services: The Commission recommends that energy Ombudsman schemes consider extending their jurisdiction to handle consumer complaints regarding new energy products and services that relate to the sale or supply of energy, where they do not already have such jurisdiction.

54 The Commission considers that the NETCC could be the mechanism for this to be explored and implemented. If this recommendation is adopted, the Commission recommends monitoring of outcomes with the NETCC, to determine if it is providing adequate and effective protections for consumers.

55 The Commission considers that there is an opportunity to promote and strengthen industry codes such as the NETCC and it will continue to investigate how such codes could be used within the evolving energy market.

Electric vehicles

56 The Commission's analysis of electric vehicles (EVs) assesses whether retail energy competition is promoting innovation related to EVs. This is an important time to look at EVs because the prevalence of EV use in Australia and around the world is growing due to declining cost and the introduction of government policies to reduce emissions in the transport sector.

57 Given the considerable impact electrification of vehicles could have on the electricity system it is important that EVs are integrated efficiently into electricity markets and networks. This aligns with one of the Commission's five strategic priority areas of reform, the integration of distributed energy resources (DER) into the energy market system.

58 Retailers are key players in the integration of EVs because of their role in facilitating the supply of electricity whilst managing the extent to which customers are exposed to cost reflective price signals. The timely development of market regulation for this integration is essential because:

- If EV charging adds to peak demand consumers are likely to bear the cost of additional network investment and higher wholesale prices.

- Conversely, if integrated efficiently, EVs would create a flexible asset capable of being a valuable resource to increase the security and reliability of the system. This in turn could support the integration of an increasing share of renewables in the system.

59 While early in the uptake phase of EVs, the wide variety of retailer sizes, strategies and skills within the NEM is facilitating innovation and diversity in early EV offers. Encouragingly, some early offers seek to influence charging behaviour through price signals. These early offers will provide retailers with information to understand consumer preferences and tailor future offers before a wider uptake of EVs begins. The volume and differentiation of offers in the market at such an early stage of uptake flags that retailers consider EVs to be a valuable opportunity for future business growth. This interest also highlights the wider market opportunity for retail entry specialising in EV offers.

60 Given the importance of new and emerging retailers to innovation it is also important to consider if there are regulatory barriers that could be removed to support retailers making EV offers and facilitating the efficient integration of EVs. The Commission suggests that amendments to the Small Generation Aggregator (SGA) framework may further facilitate innovation in EV charging services and could be made in conjunction with other EV regulatory reform work programs. This could be an interim change towards greater consumer level participation in energy markets contemplated by the ESB's two-sided markets work program.

STRUCTURE-CONDUCT-PERFORMANCE

61 The Commission has conducted its annual assessment of the state of retail competition in the NEM through the structure-conduct performance framework. The Commission notes that the data is largely as at the end of 2019. The analysis is therefore of changes prior to the pandemic.

Market structure

62 The Commission's key structural competition metrics indicate a continued trend to a more competitive retail market in 2019:

- The number of competitors in the market increased. Three new electricity retail companies entered the market. As of March 2020 there were 40 retail brands and 35 retail companies in the NEM. Notably, new entrants in the market include globally significant energy companies Nectr and Ovo Energy. Nectr has financial backing from a large global leader in renewable energy, Hanwha Energy, and Ovo energy is the second largest retailer in the United Kingdom.
- Eight existing brands expanded into new jurisdictions within the NEM. Of note, this included some of the most innovative providers (for example, Energy Locals and Powershop) which is likely to lead to newer and more diverse product offerings.
- Market concentration continued to decrease in all markets. However, the rate of decrease slowed for all markets compared to 2018, except in New South Wales where the rate has been relatively stable and Tasmania where the rate has increased.

- Overall switching rates were 19 per cent. While consumers were still active, this represents a five per cent decrease from 2018 and is a three-year low. This trend was consistent across all jurisdictions other than the Australian Capital Territory.

63 The overall slow-down in switching rates and reduction in market concentration is an issue the Commission will monitor in future reviews. A key concern the Commission raised prior to the introduction of price regulation was that it may decrease the incentive for consumers to engage in the market, and that in the long term this decreases the incentive for competition between retailers and may therefore result in higher prices for consumers.

Consumer conduct and performance

64 To analyse consumer conduct and performance, the Commission gathers data from the AER, ESC and energy Ombudsman schemes, and utilises ECA's Consumer Sentiment Survey to draw inferences regarding energy consumers preferences and opinions of the market. The key results from the April 2020 survey is:

- For residential consumers, overall satisfaction with value for money has reached a four-year high for both electricity (57 per cent) and gas (68 per cent), continuing an upward trend from a low base. Satisfaction with the value for money of electricity increased in all markets. Most notably, satisfaction with value for money has been up 18 per cent in New South Wales, 13 per cent in the Australian Capital Territory and South Australia and 12 per cent in Victoria.
- However, for residential consumers, the value for money for electricity still remains behind all comparable utility services. Satisfaction with the value for money of gas is now generally ahead of insurance and nearing internet and water.
- 55 per cent of residential consumers' say they have access to easily understood information, which has decreased after reaching its highest level on record at 60 per cent in October 2019. However, only one in three households say they are confident that the market is working in the long-term interests of consumers, continuing a five-year trend.
- For residential consumers, the main motivation for switching continued to be a dissatisfaction with the value for money offered by their current energy plan (17 per cent).

65 In terms of consumer outcomes:

- Total residential consumer complaints to retailers decreased four per cent since 2017-18, continuing a four-year downward trend.
- All jurisdictions except Queensland experienced an increase in the number of electricity consumers on hardship programs between June 2018 and June 2019. Prior to the pandemic 1.13 per cent of electricity and 0.65 per cent of gas consumers were on hardship programs.
- The average debt on entry for electricity hardship consumers in the NEM decreased or remained the same in all jurisdictions except New South Wales, which recorded a \$68 increase, to \$1,102. This will be a particularly important reference point for future assessments in order to understand the impact of the pandemic.

- Future reviews may have more access to actual prices paid by consumers as the Australian Competition and Consumer Commission (ACCC) is scheduled to start comprehensively reporting on prices paid by consumers in late 2020. The Commission has also received the Retail market transparency rule change request from ECA which seeks to provide information to enable the market bodies to conduct more effective competition analysis.

Retail conduct and performance

- 66 The Commission notes the analysis of pricing behaviour is preliminary as the default market offer (DMO) and Victorian default offer (VDO) reforms have only been in place for 12 months. Future reviews will have access to data over a longer period and be able to assess if observations made in this year's report are sustained. Changes in residential offers from 2019 to 2020 included:
- Higher priced standing offers have been removed from the market as required by the DMO and VDO. Similarly, most retailers have removed market offers priced above the DMO and VDO.
 - Average and median offers below the VDO consistently increased across all five Victorian distribution areas between five and 10 per cent. Average and median offers below the DMO were largely stable with minor movements up or down, depending on the network distribution area.
 - Price dispersion from the highest standing offer to the lowest market offer decreased between 56 per cent and 65 per cent in jurisdictions with the DMO or VDO.
- 67 The Commission also notes that, generally, underlying costs have decreased over the last 12 months and are forecast to further decrease over the next 12 months. This would normally give rise to an expectation of the lower priced market offers decreasing in line with these reduced costs. However, because the more profitable market offers are no longer available in the market due to reductions in line with the introduction of a regulated cap on standing offers, retailers have less incentive and financial ability to offer lower priced market offers. The retailers' task is further complicated by having to deal with the revenue impacts of COVID-19 and consider their pricing in relation to the Prohibiting energy market misconduct legislation that came into force on 10 June 2020.
- 68 Changes in small business offers from 2019 to 2020:
- The introduction of a price cap on standing offers has removed the most expensive offers from the market and generally reduced price dispersion. The decrease in price dispersion was greater in the distribution areas where the VDO was introduced.
 - In all distribution areas where the DMO was introduced (except Essential Energy) retailers reduced the price of their lowest offers in 2020. In Victoria, retailers increased the price of their lowest offers in 2020.
- 69 The largest increase in pricing and product innovation in the past year came from a move towards more dynamic offers accessible to those who own or purchase DER (battery or electric vehicle). The prevalence of batteries has increased due to declining costs and the emergence of virtual power plants (VPPs). VPPs potentially have large benefits for consumers

as they facilitate individual access to more value streams, such as wholesale price arbitrage and network support, and for the system as a whole as it reduces system costs for all.

70 The gradual expansion of product bundling of electricity, gas and internet continued in 2020. Similarly, the expansion of product add-ons which comprise a core part of large retailers' product offerings continued. For example, Alinta Energy released its Kayo sports pack product. Retailers noted that with the drop in price dispersion and the associated increase in difficulty attracting customers through purely price based mechanisms this trend is likely to continue.

71 Up until 2018, the Commission reported, in a limited way, on the gross margins of the 'Big 3' retailers, based on voluntarily provided information. In the absence of information gathering powers, the Commission is not able to provide a complete picture of the margins retailers are achieving in the electricity market. However, the ACCC's Retail electricity pricing inquiry reviewed margins and its information gathering powers allowed it to take a more in-depth look at the margins of all retailers. Net retailer margins across the NEM have decreased on average from \$93 to \$66 per customer between 2017-18 to 2018-19. Similarly, publicly listed retailers, Origin, AGL, EnergyAustralia and Snowy Hydro all reported a reduction in profits in 2018-19 compared to 2017-18.

RECOMMENDATIONS AND ACTIONS FOR THE AEMC

72 In this report the Commission has made a number of recommendations for governments and market bodies, and noted a number of areas the AEMC will action.

73 Table 1 provides a summary of the analysis, recommendations and actions in response to the impacts of the COVID-19 pandemic. These will:

- assist market bodies in monitoring financial stress of retailers
- improve the financial resilience of the retail energy market
- improve consumer protections for embedded network customers.

74 Box 2 and Box 3 provide a summary of recommendations and actions to improve the consumer protections framework.

Table 1: Summary of analysis and AEMC's recommendations and actions in response to the impacts of the COVID-19 pandemic

TARGET AREA	SHORT-TERM RESPONSE	LONG-TERM CONSIDERATIONS
<p><u>First line of defence:</u></p> <p>Reducing large scale consumer financial distress.</p> <p>Monitoring leading indicators of retailer financial distress.</p>	<p>The AER's statement of expectations, and increase in payment assistance measures by jurisdictions helps consumers by:</p> <ul style="list-style-type: none"> ensuring they will not be disconnected without their agreement, before 31 July 2020, and potentially beyond contributing towards their energy bills and reducing the debt that consumers would otherwise be accruing. <p>The Commission considers these measures significantly reduce the impacts of the pandemic on energy consumers, and has not made any further recommendations or actions.</p> <p><u>Leading indicators of retailer financial distress</u></p> <p>The AER has significantly increased the frequency with which it collects information on the number of customers on payment plans and hardship arrangements, and the level of customer debt.</p> <p>The Commission recommends that the AER consider whether a rule change could provide it with an additional ability to gather information to identify risks to retailer financial stability, and if so, submit a rule change request. If submitted, this rule change request would likely formalise and build on information the AER is currently collecting and providing to COAG Energy Council and SCO on a monthly basis. The AER may need to consider whether increased reporting should be</p>	<p>The Commission considers this crisis has highlighted the importance of payment assistance measures for consumers in financial distress, and notes that jurisdictions may want to consider how effective the schemes have been and if improvements could be made.</p>

TARGET AREA	SHORT-TERM RESPONSE	LONG-TERM CONSIDERATIONS
	<p>ongoing or only when triggered by exceptional circumstances which create heightened risks to market stability.</p> <p>Recommendation 5: Advance notice of retailer distress.</p>	
<p><u>Second line of defence:</u> Sharing the burden of cash-flow risk (retailers carry the credit and cash-flow risks for the entire electricity sector). Improving ROLR framework for consumer and market outcomes.</p>	<p>1. The ENA has provided a package of measures that provide direct support for affected small business customers impacted by COVID 19, as well assisting large and small retailers, so they can support impacted customers.</p> <p>2. Both the AER and AEMO have submitted rule change requests to improve cash flow outcomes for retailers:</p> <ul style="list-style-type: none"> • deferral of network charges for 6 months • delay the implementation of five-minute settlement and global settlement. <p>In assessing these rule change requests the Commission will take into account analysis on risk allocation, financial assistance measures, the ENA relief package and the AER's statement of expectations.</p> <p>3. Australia's energy market bodies (AER, AEMC, AEMO) are collaborating to prioritise work to reduce the cash flow and capability requirements of industry in dealing with regulatory reform processes.</p>	<p>The Commission considers the deferral of network payments, as provided by the ENA relief package and may be further provided by the AER rule change request if made, does not impact the network business' total revenue, only its cash flow in the short term, and it may be appropriate to have a permanent mechanism available for similar events in the future.</p> <p>Action 1: The Commission to review the effectiveness of cash flow burden sharing measures employed during the pandemic.</p> <p>Improvements to the ROLR process</p> <p>The pandemic has heightened the risk of retailer failures. The Commission makes recommendations to improve outcomes under the ROLR process if retailer failures occur and to prevent the potential for financial contagion from their occurrence.</p> <p>Recommendation 1: Remove ROLR requirement for small customers to be placed on the default offer.</p> <p>Recommendation 2: NEM financial market resilience review - Recommended changes to the existing RROLR scheme to reduce the impact of increased cash flow</p>

TARGET AREA	SHORT-TERM RESPONSE	LONG-TERM CONSIDERATIONS
		<p>and/or credit support requirements.</p> <p>Recommendation 3: The ROLR regime to be removed from the NERL and included in the NERR.</p>
<p><u>Third line of defence:</u> Market resilience and financial stability.</p>	<p>Throughout this crisis, market bodies have provided strategic information and advice to allow the COAG Energy Council to make informed decisions to ensure financial stability. This has contributed to the development of short term response measures across the industry. While these measures will make a major contribution to reducing the risk of financial contagion and poor market structure and consumer outcomes, from use of the current ROLR scheme, it cannot be known ex ante if they will by themselves be effective. Given this, it is important the COAG Energy Council consider appropriate short term measures to maintain market stability.</p> <p>Recommendation 4: COAG Energy Council to consider short term market stability measures.</p>	<p>The Commission considers that if the ROLR framework is enhanced, through the recommendations included in this report, then there may be a reduced need for any additional measures to respond to a future crisis. However, this is not possible in response to the pandemic because these changes require law and rule changes which could not be achieved within the necessary time frames. A detailed consideration of last resort financial assistance for retailers, by the COAG Energy Council, is therefore warranted.</p>
<p>Embedded network customers</p>	<p>The AER's Statement of Expectations includes 'exempt sellers' (embedded networks) when outlining principles that they must adhere to, including not to disconnect customers, without their permission, before 31 July 2020.</p>	<p>The Commission recommends that the COAG Energy Council, market bodies and jurisdictional government and regulatory bodies implement the comprehensive package of changes to laws, rules and regulations to protect consumers and improve choice in embedded networks, as recommended in the embedded networks review completed in 2019.</p> <p>Recommendation 6: Protect consumers in embedded networks.</p>

BOX 2: SUMMARY OF RECOMMENDATIONS TO IMPROVE THE CONSUMER PROTECTIONS FRAMEWORK

Recommendation 7: Notifications of contract changes

The Commission recommends that a rule change request is developed to change the current NECF notification provisions relating to contract changes to move towards a more principle-based regulatory approach. Details of what should be included in this rule change are provided in chapter 10.

Recommendation 8: Explicit Informed Consent

The Commission recommends the CDR in the energy market introduces authorised third party access to switch consumers on their behalf (known as 'write' access in the CDR). The Commission will continue to engage with the Treasury, ACCC and Data61 to develop the CDR in the energy market.

Should the necessary changes not be made to implement 'write' access in the energy sector under the CDR, the Commission will seek to work with stakeholders towards a proposal to change explicit informed consent (EIC) requirements under the NERL and Rules to allow authorised third parties to switch consumers on their behalf. The Commission also considers it important the Australian Government progresses a previous recommendation from the Commission and the ACCC regarding the regulation of third-party comparator sites.

Recommendation 9: Greater industry engagement in developing consumer protections through co-regulatory approaches

The Commission recommends that industry should play a greater role in developing energy consumer protections. In the first instance, this could include trials and testing of industry led initiatives supported by the AER. These trials should inform the process for developing protections, the outcomes for consumers, monitoring processes and compliance costs. The results should therefore help inform the design of a framework for regulatory and co-regulatory approaches in the emerging energy sector.

Recommendation 10: Dispute resolution mechanism for new energy products and services

The Commission recommends that energy Ombudsman schemes consider extending their jurisdiction to handle consumer complaints regarding new energy products and services that relate to the sale or supply of energy, where they do not already have such jurisdiction.

The Commission considers that the NETCC could be the mechanism for this to be explored and implemented.

If this recommendation is adopted, the Commission recommends monitoring of outcomes with the NETCC, to determine if it is providing adequate and effective protections for

consumers.

The Commission believes that there is an opportunity to promote and strengthen industry codes such as the NETCC and it will continue to investigate how such codes could be used within the evolving energy market.

BOX 3: SUMMARY OF ACTIONS FOR THE AEMC TO IMPROVE THE CONSUMER PROTECTIONS FRAMEWORK

Action 2: Consumer protection and a two-sided market

The Commission will continue to explore the consumer protections that will be required in the two-sided market design. This will form part of the ESB's 2025 market design program and will be based on the analysis of consumer protection regulations, as outlined in chapter 9.

Action 3: Future-proofing the application of the NECF

Given the changes in the energy market, the Commission will continue to explore whether the regulatory tests that define the application of the NECF require changes to appropriately exclude or include new energy market products and services.

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1 INTRODUCTION, SCOPE AND COMPETITION ASSESSMENT

1.1 Purpose

The Australian Energy Market Commission's (AEMC or the Commission) 2020 retail energy competition review (Review) assesses the state and possible future development of retail competition, and the outcomes small customers are experiencing in the national electricity market (NEM) and gas markets.⁵ Based on this assessment the review makes recommendations to enhance competition and improve consumer outcomes.

1.2 Market definition

The review covers residential and small business consumers in retail electricity and gas markets in the Australian Capital Territory, New South Wales, Queensland, South Australia, Tasmania and Victoria.⁶

Each of the jurisdictions is considered as a single geographic market with two product markets: electricity and gas. The exception is Queensland, which is considered as two geographic and product markets: South East Queensland and regional Queensland.⁷

1.3 Assessment framework

The Terms of Reference for the review from the Council of Australian Governments (COAG) Energy Council specify indicators to assess when considering the effectiveness of competition. These are:

- independent rivalry within the market
- the ability of retailers to enter the market
- the exercise of market choice by customers
- differentiated products and services
- price and profit margins
- customer switching behaviour.

Consistent with the approach taken in 2019, this review considers these indicators and others within a structure-conduct-performance analysis framework. The framework assists in

5 The AEMC conducted jurisdiction by jurisdiction reviews from 2007 to 2013. This was in response to the 2004 commitment under the Australian Energy Market Agreement to remove retail price regulation where effective competition could be demonstrated. From 2014, following revised terms of reference from the Standing Council on Energy Resources (now the COAG Energy Council), the reviews were conducted on a NEM-wide basis. The focus of the reviews moved to the state of competition and outcomes for consumers in competitive retail energy markets.

6 Each jurisdiction has a specific consumption threshold that defines a small customer for legislative and regulatory purposes. The maximum annual consumption thresholds are: South Australia — Electricity 160MWh, Gas 1TJ; Australian Capital Territory — Electricity 100MWh, Gas 1TJ; New South Wales — Electricity 100MWh, Gas — 1TJ; Victoria — Electricity 40MWh, Gas 1TJ; Tasmania — Electricity 150MWh, Gas 10TJ; Queensland — Electricity 100MWh, Gas 1TJ.

7 South East Queensland and regional Queensland have differences that justify their treatment as separate markets. South East Queensland has approximately 1.5 million small customers in a geographic area of 25,000 square kilometres, compared to regional Queensland which has about half the customer numbers in an area greater than one million square kilometres.

assessing how the structure of a market influences the conduct of participants and in turn the performance of the participants and the market as a whole. Within the framework:

- **Structure** refers to factors that govern and shape the activities within a market. These are often relatively stable over time, although that depends on the nature of the products and services on offer, and the rate of technological change in the market. In this review structural factors include:
 - the level of market concentration
 - the level of rivalry in the market
 - barriers to entry and expansion.
- **Conduct** refers to the way buyers and sellers behave in the market. In this review, observable indicators of retailer conduct are their advertising, price and non-price strategies, and other forms of differentiation. For consumers, the indicators include assessment of engagement and activity, such as switching.
- **Performance** refers to the results that firms and consumers achieve in the market. In this review, retailer margins and profitability are referenced as performance indicators, whereas for consumers the indicators include consumer satisfaction, complaints and disconnections.

In addition to the standard structure-conduct-performance analysis, in Chapter 7, this year's review also includes an examination of the impacts of the COVID-19 pandemic on energy consumers, retailers and retail energy market financial stability. The Commission notes the observations and analysis in this chapter were finalised in early June 2020. Given the speed at which the pandemic and associated impacts continue to evolve, the Commission encourages policy-makers to take into account changes in the economic climate and retail market dynamics since June 2020 when consideration is given to the recommendations made in this chapter. The Commission will monitor and report on these impacts in future reviews.

1.4 Specific focus areas for this year's review

This year's review has three new areas of focus that provide a deeper understanding of specific aspects of the market. These are:

- **How the retail market is responding to the uptake of electric vehicles (EVs).** The prevalence of EV use in Australia and around the world is growing due to declining cost and the introduction of government policies to reduce emissions in the transport sector. Given the considerable impact electrification of vehicles could have on the electricity system it is important that EVs are integrated efficiently into electricity markets and networks. This aligns with one of the Commission's five strategic priority areas of reform, the integration of distributed energy resources into the energy market system.
- **Consumer protections in an evolving energy market.** In last year's review the Commission provided an overview of the role of both the National Energy Customer Framework (NECF) and Australian Consumer Law (ACL) in providing consumer protections for energy customers. This year the Commission builds on this through assessing if the NECF is still fit-for-purpose, in its current form, for a market that is

undergoing a transition, including a transformation in what it means to be a 'consumer' and the ways in which energy can be provided to consumers. The market has evolved in two different ways relevant to the analysis on consumer protection:

- how digitalisation has created a need to review if the NECF continues to deliver the best outcomes for consumers and promote innovation
- how market developments and new, non-traditional energy products and services could lead to changes in the scope of the NECF and whether consumer protections over and above the ACL are needed.

1.5 Understanding the range of data and indicators

Each chapter of the review presents a range of data and other indicators. As in the 2019 Review, when assessing competition and the outcomes it delivers for consumers, the Commission bases its conclusions not on any one particular piece of information, but rather, from a more complete assessment of all the data and indicators. It is also more useful to consider the development and effectiveness of competitive markets over time, rather than via specific point-in-time observations.

1.6 Price deregulation

The Commission considers that prices should be deregulated where competition is effective. We are also tasked, under the Australian Energy Market Agreement and the Terms of reference from COAG Energy Council for this Review, with making an assessment as to which jurisdictions' have suitable retail competition that allow for the removal of jurisdictional retail energy price regulation.

Effective competition is yet to fully emerge in the Australian Capital Territory, regional Queensland and Tasmanian electricity markets. This may be due to the limited size of the Tasmanian and Australian Capital Territory electricity markets, and the continuation of the uniform tariff policy in regional Queensland.⁸ Therefore, the Commission does not consider that price deregulation is currently warranted in these regions.

On 1 July 2019 the Commonwealth and Victorian governments introduced a price cap for standing offers in the form of the Default market offer (DMO) and Victorian default offer (VDO) in the retail energy markets in South East Queensland, New South Wales, South Australia, and Victoria.

Prior to the introduction of the DMO and VDO, the Commission provided advice to COAG Energy Council that the introduction of a default offer may result in the following:

- A decrease in price dispersion, including price increases in the lower priced market offers available to consumers, which may reduce the incentive for consumers to engage in the market and could lead to decreased switching.

⁸ Ergon Energy Retail remains the dominant retailer in Regional Queensland because of the large per-customer government subsidy to Ergon to ensure regional customers pay a similar price to customers in the competitive South East Queensland market. This subsidy is not available to other retailers and creates a barrier for them to offer competitively priced offers.

- It would also be reasonable to expect that retailers would attempt to recover lost revenue by increasing prices for their other customers, or at least in the short term, withdrawing their lower priced market offers. Whether or not these attempts are successful for an individual retailer would depend on the impacts of the default offer on competitors and the responsiveness of customers. In a workably competitive market, a retailer would be unlikely to recover the full amount. However, it would be reasonable to expect that they would recover some amount from customers on market offers.
- The likely longer term structural effects of the introduction of a default offer, including; increased risk to retailers driving higher financing and overall costs, lower levels of innovation leading to a smaller range of products and services, and higher barriers to entry and changes to consumer behaviour resulting in decreased competition.⁹

Given the short period of time, it is too early to assess the full impacts of re-introducing price regulation. From the analysis outlined in chapters 3, 4, 5 and 6, the Commission has observed that competition has continued to develop under price regulation, albeit at a slower pace than in previous years.

The Commission notes future reviews will have access to data over a longer period and be able to assess if observations made in this year's report are sustained.

1.7 Structure of the report

The report is structured as follows:

- Chapter two describes the context within which retail markets are operating. Specifically, it identifies the reviews, market changes and market interventions that have been announced or enacted since the 2019 Review.
- Chapter three assesses the structure of the retail electricity market, by examining observable market data and the perceptions of market participants.
- Chapter four examines electricity retailer behaviour and outcomes, including their pricing offers and product innovation, and reference to their retail margins.
- Chapters five outlines residential and small business consumer experience through behaviour, sentiment surveys measured through changes in a range of satisfaction metrics, and outcomes through changes in the level of complaints, disconnections and hardship statistics.
- Chapter 6 provides an overview of changes in gas market structure and pricing.
- Chapter 7 examines the impact of the COVID-19 pandemic on consumers, retailers and retail energy market financial stability. It considers the effectiveness of mitigation measures put forward by governments and industry bodies, and considers recommendations that would likely improve retail energy market financial resilience.
- Chapters eight to eleven cover the focus areas outlined in section 1.4

The Commission's analysis throughout the report is supported by our continued desire to publish and provide access to data sources to facilitate stakeholders analysing the retail

⁹ <https://www.aemc.gov.au/market-reviews-advice/advice-coag-energy-council-default-offer>

market. Continuing the trend from previous years all the data that underpins the report (subject to confidentiality requirements) is published on the dedicated Retail energy competition review microsite. This includes data for all individual distribution zones in every jurisdiction, much of which, for brevity, are not presented in this report.

2 RETAIL MARKET ENVIRONMENT

BOX 4: SUMMARY OF KEY FINDINGS

- This chapter provides an overview of changes to the retail market regulatory framework over the past year. This provides context for the analysis in the chapters that look at the structure, conduct and performance for both consumers and retailers.
- The main changes include:
 - The AEMC's changes to the NERR and the Essential Services Commission (ESC) changes to Victoria's Energy retail code. These changes were designed to improve consumer outcomes through increased transparency of prices and contracts, market efficiency and changes to the wholesale market aimed at reducing costs.
 - The AEMC's proposed reforms to provide consumers with greater protections within the context of a changing energy system. These include reforms to embedded networks and stand-alone power systems.
 - The introduction of the Commonwealth government's Prohibiting energy market misconduct legislation. A retail pricing prohibition has been added to the *Competition and Consumer Act (CCA)* and came into force in June 2020. The prohibition requires retailers to pass on sustained and substantial decreases in the costs of electricity.
 - The re-introduction, by Commonwealth and Victorian governments, of price regulation in the form of the Default market offer (DMO) and Victorian default offer (VDO) in the retail energy markets in South East Queensland, New South Wales, South Australia, and Victoria on 1 July 2019.
- The chapter highlights enforcement activity over the past year. The AER has issued at least ten penalty notices for a range of alleged breaches to NERR. Enforcement activity in Victoria over 2019-20 has resulted in over \$2 million in penalties paid by multiple retailers for failure to obtain informed consent and application of concessions.
- Change to jurisdictional government policies and regulations have also taken place over the last year. In particular, jurisdictions have focused on supporting consumer outcomes through increased energy efficiency measures and upgrades to home power systems. These changes are separate to jurisdictional responses to the COVID-19 pandemic.

This chapter looks at recent developments in the retail energy market, including:

- changes to the NERR and Energy retail code amendments
- significant reviews and discussion papers related to the retail market
- the introduction of the retail pricing prohibition within the Prohibiting energy market misconduct legislation
- re-introduction of price regulation
- compliance and enforcement activities

- changes to regulation and policy made by jurisdictional governments.

2.1 Retail rule changes and reviews

Over the past year, a number of reforms to the retail energy market have been put in place, are progressing or being considered by the AEMC, and by the ESC in Victoria. Many of these are designed to improve the transparency of prices and contracts, increase market efficiency, and reduce costs through improvements to wholesale and contracts markets frameworks. In last year's report, the AEMC noted over 20 National Energy Customer Framework (NECF) rule changes were at various levels of completion. The number of ongoing projects has reduced to 10 projects in 2019-20.

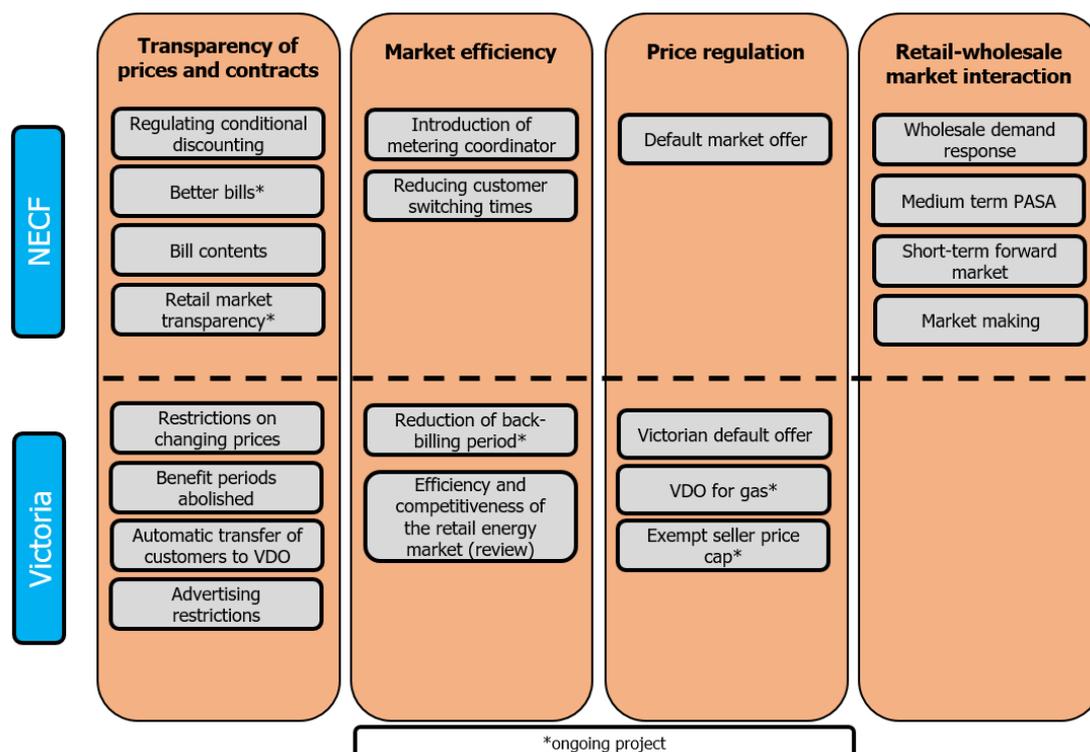
The scope and volume of changes related to transparency and pricing indicate stakeholder and government concerns with the ability of market participants to understand and engage in the market. Energy Consumers Australia (ECA) and Public Interest Advocacy Centre (PIAC) for example, have described the retail energy market as a "confusopoly", that is, a market where informed consumer choice is restricted because of complex offers and contract conditions.¹⁰ Notably, regulatory changes to retail markets have happened contemporaneously to major changes occurring or being considered to the wholesale energy market, such as the introduction of five minute settlement and wholesale demand response.¹¹ The changes to the regulatory environment have placed pressure on energy businesses to adapt. These changes are noted in Figure 2.1.

Additionally, in 2019-20 the AEMC completed several reviews and discussion papers related to the retail market, which are discussed in section 2.1.3.

¹⁰ Energy Consumers Australia, submission to Regulating conditional discounting draft determination, 23 September 2019, p. 2. PIAC, Submission to the Standing Committee on Economics Inquiry into impediments to business investment, May 2018, p. 2.

¹¹ The AEMC is currently considering a delay to the implementation of five-minute settlement within the context of the COVID-19 pandemic. AEMC, Delayed implementation of five minute and global settlement, 9 April 2020, accessed at: <https://www.aemc.gov.au/rule-changes/delayed-implementation-five-minute-and-global-settlement>.

Figure 2.1: Retail projects in NECF and Victoria



Source: AEMC

2.1.1 AEMC reforms — NECF retail projects

Since April 2019, the AEMC has completed or commenced over 10 rule changes, a number of which are related to the retail market, these are summarised in Table 2.1 below.

Table 2.1: AEMC retail rule changes

RULE CHANGE PROPOSAL, PROPONENT	DESCRIPTION OF PROPOSAL (IF IN PROGRESS) OR DESCRIPTION OF CHANGE AND RATIONALE (IF COMPLETE)
Transparency of prices and contracts	
Regulating conditional discounting, The Hon. Angus Taylor.	The rule change request sought to cap conditional discounts to reasonable costs retailers face from late payment. The AEMC made a rule to restrict the level of conditional discounts and fees to reasonable costs, thus protecting consumers from large penalties when they miss pay-on-time discounts.
Better bills, The Hon. Angus	The rule change request proposes the introduction of an

RULE CHANGE PROPOSAL, PROPONENT	DESCRIPTION OF PROPOSAL (IF IN PROGRESS) OR DESCRIPTION OF CHANGE AND RATIONALE (IF COMPLETE)
Taylor.	enforceable Better Bills Guideline (developed by the AER) and provide a single point of reference to industry on the required form, content and delivery of energy retail bills. Rule change has not been initiated.
Bill contents – consumers with interval meters, Mr Craig Whybrow.	The proposal required retailers to include start and end meter readings in electricity bills for consumers with interval meters. The AEMC found that the materiality of the issue raised by the rule change request was found to be insufficient to make the proposed change. The rule was not made.
Retail market transparency, ECA.	The rule change request proposed to create a reporting obligation on retailers to periodically report data on revenues, costs and consumers on different pricing plans. The rule change has not been initiated.
Market efficiency	
Introduction of metering coordinator planned interruptions, Competitive Industry Metering Group.	The rule change request proposed allowing metering coordinators to interrupt consumers' electricity supplies to install or repair an electricity meter. The more preferable final rule provides customers with shared fusing at their premises greater certainty on when their electricity meter will be installed.
Reducing consumers' switching times, AEMO.	The rule change request sought to speed up the process for consumers to transfer to a new electricity retailer. The final rule enables AEMO to facilitate customers' switching their energy retailers in two days, regardless of their meter type. The rule was made by the AEMC in December 2019.
Retail-wholesale market interaction	
Wholesale demand response mechanism, PIAC, Total Environment Centre and the Australia Institute and South Australian government.	The final rule, published on 11 June 2020, set out a series of changes to the NER to facilitate wholesale demand response in the NEM. Consumers will be able to sell demand response in the wholesale market either directly or through specialist aggregators for the first time. Under the rule, consumers will be able to actively participate in central dispatch and be rewarded for the value they provide to the system.
Medium term Projected Assessment of System Adequacy (MT PASA), ERM Power.	The AEMC's final rule amended the MT PASA to improve transparency and accuracy, and extend the projected outlook of MT PASA from two to three years. The more granular data available as a result of the changes will enable market participants to make more efficient decisions. The rule was made in February 2020.

RULE CHANGE PROPOSAL, PROPONENT	DESCRIPTION OF PROPOSAL (IF IN PROGRESS) OR DESCRIPTION OF CHANGE AND RATIONALE (IF COMPLETE)
Short term forward market, AEMO.	The rule change request sought to introduce a voluntary market for short term financial derivatives to enable participants to contract for electricity in the week leading up to dispatch. The rule was not made because expected demand for such a market is likely to be limited and hence would not provide any investment signals, or improve operational decisions.
Market making arrangements in the NEM, ENGIE.	The rule change request sought to establish a tender mechanism for voluntary market making services in the national electricity market with the aim to increase the opportunities for market participants to trade in electricity hedge contracts and to have greater visibility of wholesale contract prices. The rule was not made because additional market making arrangements beyond the ASX and MLO initiatives are not likely to be efficient.

Source: AEMC, accessed at <https://www.aemc.gov.au/our-work/changing-energy-rules/rule-changes>

2.1.2 ESC reforms - Victorian retail projects

Since April 2019, the ESC has completed or commenced over 20 code changes, a number of which are related to the retail market, these are summarised in Table 2.2 below. 19 retail code amendments were made in February 2020 in response to recommendations to the Victorian government as part of the Thwaites Review.¹² These reforms take effect from 1 July 2020. The table below includes the five most significant amendments to the Energy retail code as well as other unrelated projects conducted by the ESC since June 2019.¹³

Table 2.2: ESC retail projects - Victoria

PROJECT NAME	DESCRIPTION
Restrictions on changing prices.	Rationalises and limits changes to contract prices. Prices on existing contracts may only be varied on an annual reset date. Retailers will be required to disclose upfront when prices under a contract will change and, if known, the magnitude of any anticipated changes. https://www.esc.vic.gov.au/electricity-and-gas/inquiries-studies-and-reviews/electricity-and-gas-retail-markets-review-implementation-2018/

¹² ESC, Ensuring contracts are clear and fair 2019, accessed at <https://www.esc.vic.gov.au/electricity-and-gas/inquiries-studies-and-reviews/electricity-and-gas-retail-markets-review-implementation-2018/ensuring-contracts-are-clear-and-fair-2019>.

¹³ Other notable changes included the capping of pay-on-time discounts at a level set by the ESC, so customers who miss a bill payment will not face a large increase in costs and the requirement that information on the VDO be included in the front page of every electricity bill.

PROJECT NAME	DESCRIPTION
	ensuring-contracts-are-clear-and-fair-2019
Benefit periods abolished.	Benefit periods will now be aligned with contract periods. Ongoing benefits received by consumers must be evergreen (i.e. discounts, credits and rebates). Retailers must not decrease benefits during the term of a contract. https://www.esc.vic.gov.au/electricity-and-gas/inquiries-studies-and-reviews/electricity-and-gas-retail-markets-review-implementation-2018/ensuring-contracts-are-clear-and-fair-2019
Automatic transfer of consumers at the end of a benefit period.	At the end of a fixed term contract, if no explicit informed consent is given, the consumer will be automatically moved onto the VDO (for electricity) and the retailer's best offer (for gas). https://www.esc.vic.gov.au/electricity-and-gas/inquiries-studies-and-reviews/electricity-and-gas-retail-markets-review-implementation-2018/ensuring-contracts-are-clear-and-fair-2019
Reference price for gas.	Decision not to develop a reference price for gas because of the greater complexity of gas tariffs and issues related to the transparency of gas prices. https://www.esc.vic.gov.au/sites/default/files/documents/clear-and-fair-energy-contracts-draft-decision-20191210.pdf
Advertising restrictions.	Restrictions on retailer advertising energy offers in Victoria, similar to those in place under in the NECF since 1 July 2019. For example, retailers in Victoria will be banned from advertising headline conditional discounts. https://www.esc.vic.gov.au/electricity-and-gas/inquiries-studies-and-reviews/electricity-and-gas-retail-markets-review-implementation-2018/ensuring-contracts-are-clear-and-fair-2019
Reduction of back-billing period.	Proposal to make equivalent obligations for energy distributors and retailers to ensure consumers are not back-billed for more than four months when they are not at fault. Consultation for this amendment is ongoing. https://www.esc.vic.gov.au/electricity-and-gas/inquiries-studies-and-reviews/changes-back-billing-rules-2020
Maximum electricity prices for embedded networks and other exempt sellers.	Proposal to set a maximum price that electricity sellers can charge embedded network consumers (or categories of embedded network consumers). Consultation for this amendment is ongoing. https://www.esc.vic.gov.au/electricity-and-gas/prices-tariffs-and-benchmarks/embedded-network-tariffs-including-caravan-parks/maximum-electricity-prices-embedded-networks-and-other-exempt-sellers-

PROJECT NAME	DESCRIPTION
	review-2020
Strengthening protections for life support consumers.	New amendments to the Energy retail code to strengthen and clarify protections for Victorian consumers who require life support equipment. The full framework for electricity businesses came into effect from 3 February 2020, for gas it comes into effect on 1 July 2020. https://www.esc.vic.gov.au/electricity-and-gas/inquiries-studies-and-reviews/strengthening-protections-life-support-customers-2019
Assessing the energy retail market's competitiveness and efficiency.	Report and monitoring on the competitiveness and efficiency of the Victorian energy retail market. A framework and approach has been developed to assess whether the Victorian energy retail market is delivering good value to energy consumers. This process is ongoing. https://www.esc.vic.gov.au/electricity-and-gas/inquiries-studies-and-reviews/electricity-and-gas-retail-markets-review-implementation-2018/assessing-energy-retail-markets-competitiveness-and-efficiency-2019

Source: ESC

2.1.3

Retail reviews & discussion papers

Ahead markets

On 20 April 2020, the Energy Security Board (ESB) released a discussion paper that outlined options to incorporate an 'ahead market' into the broader national electricity market. The paper outlined options for an ahead market to address system security concerns, and broader designs that incorporate security and energy services. The ESB will recommend, by the end of 2020, a design to bring greater "aheadness" into the market in a way that is coordinated with other market design elements currently being developed.¹⁴

Two-sided markets

On 20 April 2020, the ESB released a discussion paper that outlined options for a two-sided market – where all types of energy users actively buy and sell electricity. In this market, all demand and supply quantities and prices will be bid into the market. Consumers will be able to do this directly or via a market participant like retailers. The paper also noted the increasing role of "prosumers" requires a rethinking of certain key aspects of the national electricity market. It proposed that the diverse arrangements that exist today around

¹⁴ AEMC, Thinking ahead: Options for boosting reliability and security in the National Electricity Market, 20 April 2020, accessed at https://www.aemc.gov.au/news-centre/media-releases/thinking-ahead-options-boosting-reliability-and-security-national?utm_medium=email&utm_campaign=ESB+update+16-04-2020&utm_content=aemc.gov.au%2Fnews-centre%2Fmedia-releases%2Fthinking-ahead-options-boosting-reliability-and-security-national&utm_source=www.vision6.com.au.

retailers, generators, aggregators should be replaced with two simple categories – those who use electricity and those who trade it on behalf of end users.¹⁵

Updating the regulatory frameworks for embedded networks

In June 2019 the AEMC proposed a package of law and rule changes to update the regulatory frameworks for embedded networks and a plan to transition certain legacy embedded networks to the new arrangements.¹⁶ The proposed framework is expected to result in better protections and access to more competitive retail offers for consumers in embedded networks. The proposed package of law and rule changes will elevate embedded networks into the national framework by enabling obligations relating to consumer protections and retail market competition to apply directly to embedded networks. The COAG Energy Council has noted the AEMC's recommendations and is considering further action during 2020.¹⁷

Review of the regulatory frameworks for stand-alone power systems

This review considered law and rule changes required to allow local distribution network service providers (DNSPs) or other parties to use stand-alone power systems (SAPS)¹⁸ where it is economically efficient to do so, while maintaining appropriate consumer protections and service standards. Two reports were published in 2019 covering these issues.

Under the reforms proposed in the first report in May 2019 relating to DNSPs, consumers who receive stand-alone systems will retain all of their existing consumer protections, including access to retail competition and existing reliability and safety standards. Cost savings arising from the use of lower cost stand-alone systems will flow through to all users of the distribution network, through lower network prices.

The COAG Energy Council has released a response to the AEMC's final report. The Council is currently drafting the necessary legislative amendments to implement the AEMC's framework consistent with this response, with an aim to have the legislative amendments made in 2020.

A second report on third-party SAPS, published on 31 October 2019, sets out the AEMC's recommendations for a tiered framework to allow for appropriate consumer protections to be provided in a proportionate manner, rather than a one-size-fits-all approach. Under the recommendations, the majority of third-party SAPS would be regulated under jurisdictional frameworks. Very large third-party SAPS, would be regulated under the current national framework.¹⁹

15 AEMC, What next for a two-sided energy market? The implications of venturing behind the meter, 20 April 2020, accessed at https://www.aemc.gov.au/news-centre/media-releases/what-next-two-sided-energy-market-implications-venturing-behind-meter?utm_medium=email&utm_campaign=ESB+update+16-04-2020&utm_content=aemc.gov.au%2Fnews-centre%2Fmedia-releases%2Fwhat-next-two-sided-energy-market-implications-venturing-behind-meter&utm_source=www.vision6.com.au.

16 Embedded networks are private electricity distribution networks that serve multiple consumers and are connected to another distribution or transmission system in the national grid through a parent connection point.

17 AEMC, market review: Updating the regulatory frameworks for embedded networks, 20 June 2019, accessed at <https://www.aemc.gov.au/market-reviews-advice/updates-regulatory-frameworks-embedded-network>.

18 A stand-alone power system (SAPS) is an electricity supply arrangement that is not physically connected to the national grid. The term encompasses both microgrids, which supply electricity to multiple consumers, and individual power systems, which supply electricity to a single consumer.

19 AEMC, market review: Review of the regulatory frameworks for stand-alone power systems, 31 October 2019, accessed at <https://www.aemc.gov.au/market-reviews-advice/review-regulatory-frameworks-stand-alone-power-systems>.

2.2 Prohibiting energy market misconduct legislation

In December 2019, Federal Parliament passed the *Treasury Laws Amendment (Prohibiting Energy Market Misconduct)*.²⁰ The legislation, which is an amendment to the Competition and Consumer Australian Capital Territory 2010 (Cth) (CCA), comes into effect on 10 June 2020 and will be enforced by the ACCC. The legislation introduced three new electricity sector-specific prohibitions into the CCA and a new set of remedies. The provisions in the legislation apply nationwide, including to areas that are not connected to the NEM. The prohibitions are summarised below in Table 2.3:

Table 2.3: Summary of new prohibitions

PROHIBITION	TARGETED CONDUCT & PARTICIPANTS	REMEDIES
Retail pricing prohibition – Section 153E	Targeted parties: retailers. Failure to make reasonable adjustments to the price of market offers to reflect sustained and substantial reductions in the underlying cost of procuring electricity.	Warning & infringement notices, civil penalties.
Financial contract prohibition – Section 153F	Targeted parties: counter-parties engaged in electricity derivative trading. Failure to offer contracts, limiting offers for contracts or offering contracts on commercially unattractive terms for the purposes of substantially lessening competition in the electricity market.	Warning & infringement notices, civil penalties, contracting orders.
Wholesale market prohibition – Sections 153G and 153H	Targeted parties: participants in the electricity wholesale market. Bidding or failure to bid in the spot market that is done in a fraudulent, dishonest manner and/or has been carried out for the purposes of distorting or manipulating prices in the spot market.	Warning & infringement notices, civil penalties, contracting orders, divestiture orders.

Source: Department of Industry, Science Energy and Resources, A Guide to the Treasury Laws Amendment (Prohibiting Energy Market Misconduct) Bill 2019, September 2019.

The retail pricing prohibition is the most significant aspect of the legislation for this report. The legislation prohibits a failure to make reasonable adjustments to the price of market offers to reflect sustained and substantial reductions in the underlying cost of procuring electricity.²¹

²⁰ The legislation has been colloquially referred to as the "big stick" bill, see <https://www.energy.gov.au/government-priorities/energy-markets/prohibiting-energy-market-misconduct>.

²¹ ACCC, Guidelines on Part XICA - Prohibited conduct in the energy market, 11 May 2020, section 2.12 states that the underlying costs of procuring electricity include wholesale and contract market costs, network costs and environmental costs. Retail costs and margins are not included in the cost of procuring electricity.

On 11 May 2020, the ACCC released guidelines to assist compliance with the legislation. The guidelines are non-binding. With respect to the retail prohibition the draft guidelines stated that:²²

- The prohibition is primarily focused on sector-wide decreases in costs., However, the ACCC noted that cost reductions do not need to be sector-wide to fall under the prohibition. For example, reductions in a particular distribution network would apply only to retailers operating in that network.
- Short-term fluctuations, such as normal variations in spot market prices that last only several weeks (including seasonal fluctuations), would not require a change to retail prices.
- Cost changes across the supply chain will be assessed in aggregate to understand the net effect on prices.
- Not all cost reductions will be reflected to the same extent for different types of tariffs or for different retailers. Retailers may adjust their offers differently based on genuine differences in products and competitive strategies. For example, retailers operating at a loss in order to grow market share would not be required to pass on full cost reductions when compared to an incumbent that has a large profit margin.
- An adjustment to retail prices must be made within a reasonable period after the sustained reduction, taking into account the retailer's next planned price adjustment.
- Examples in the guideline indicate that some retailers may need to vary prices of fixed term contracts that exceed 12 months to avoid breaching the prohibition.
- The ACCC will not set a threshold in determining whether a reduction is 'sustained and substantial'. However, it lists factors it may consider in making an assessment of whether such a reduction has occurred. This includes the overall price of the retail product, the duration of the reduction and the factors causing the reduction.
- Reductions should be made to the underlying tariff or base rate of a product. Retailers are advised to avoid making price adjustments through other means, such as increasing discounts, or providing one-off credits. However, based on industry feedback, the ACCC noted in the final guidelines that it would consider it reasonable for retailers to pass on cost reductions through increased guaranteed discounts.

2.3 Commonwealth and Victorian government reforms - re-introduction of price regulation in the retail energy market

Price regulation reforms were introduced in July 2019 in South East Queensland, New South Wales, South Australia, and Victoria. In the year since its introduction, the retail market has changed in the following ways:

- the gap between highest and lowest prices in the market has narrowed²³

²² Ibid, Part 2.

²³ ACCC, Inquiry into the national electricity market November 2019 report, 29 November 2019, pp.95-6, accessed at: www.accc.gov.au/regulated-infrastructure/energy/electricity-market-monitoring-2018-2025/november-2019-report.

- fewer customers have switched retailers²⁴
- there has been a reduction in the availability and size of conditional discounts²⁵

Chapters 3, 4 and 5 of this report provide the AEMC's preliminary analysis on how the retail electricity market structure, conduct and outcomes have changed since price re-regulation. Chapter 5 in particular focuses on consumer behaviour, sentiment and outcomes since these reforms were enacted. The AEMC notes this analysis is preliminary as the DMO and VDO have only been in place for 12 months. Future reviews will have access to more data and be able to assess if observations made in this year's report are sustained.

2.3.1

Default market offer

Introduction of the Default market offer

On 4 April 2019, the Australian Government enacted the *Competition and Consumer (Industry Code — Electricity Retail) Regulations 2019* (the DMO Code). The DMO Code came into force on 1 July 2019 and applies in New South Wales, South Australia and South East Queensland. The main requirements of the DMO Code are that retailers must:

- not set their standing offer prices for certain small consumers in excess of the AER's determined annual price (the DMO)
- clearly communicate or advertise the difference between their retail offers and the DMO
- not advertise conditional discounts as the 'headline' discount.

The DMO acts as both a cap on standing offers that retailers are able to offer their residential and small business consumers on flat rate tariffs, and as a reference price for flat rate and time of use tariffs.

On 30 April 2019, the AER released its final determination on the DMO. The AER used a top-down approach to develop the DMO, which is set at 50 per cent of the average of all standing offers and the average of all market offers in each distribution network.²⁶

2.3.2

Victorian default offer

Introduction of the Victorian default offer

The Victorian government enacted the *Energy Legislation Amendment (Victorian Default Offer) Act 2019* to give effect to the VDO. The purpose of the VDO is to provide consumers with access to a 'fair' priced electricity offer.²⁷

On 3 May 2019, the ESC provided its final advice to the Victorian Government on the level of the VDO, which was developed with a bottom-up approach. Consistent with the objectives given to the ESC and AER, the VDO has been set at a rate that is generally considered to be

24 AEMO, National electricity market, monthly retail transfer statistics, December 2019, accessed at: <https://aemo.com.au/-/media/files/electricity/nem/data/metering/mrts/2019/nem-monthly-retail-transfer-statistics-201912.pdf?la=en&hash=FB4A961315592C5B6D61A5B3D0DAFA51>.

25 AER, Annual retail markets report 2018-19, November 2019, p. 99, accessed at: https://www.aer.gov.au/system/files/AER%20Annual%20Retail%20Markets%20Report%202018-19_0.pdf.

26 AER, Final determination - Default market offer prices 2019-20, April 2019.

27 Victorian default offer expert panel, Report on the initial market outcomes since the introduction of the Victorian Default Offer, November 2019, p. 5.

lower compared to the DMO (taking into account differences in retailer input costs across jurisdictions).²⁸

2.4 Compliance and enforcement activities

In order to maintain consumer protections, the AER and ESC are responsible for monitoring, investigating, enforcing and reporting on compliance by retailers and DNSPs under the National Energy consumer Framework (NECF) and Retail Energy Code respectively. In addition to this, the ACCC is also the national regulator responsible for enforcement and compliance with obligations under the ACL. Over the past 18 months there has been a number of actions taken by the AER, ESC and the ACCC.

2.4.1 AER compliance and enforcement

Penalty notices

Since June 2019, at least 10 penalty notices have been issued to retailers by the AER. The value of penalties paid by retailers are noted in brackets, if applicable.

Table 2.4: AER compliance

ALLEGED COMPLIANCE ISSUE	ENERGY RETAILER, PENALTIES PAID/STATUS
Failure to submit accurate market performance data.	AGL — civil proceedings ongoing. https://www.aer.gov.au/retail-markets/compliance/enforcement-matters/agl-obligation-of-regulated-entities-to-provide-information-and-data-about-performance
Failure to promptly appoint a metering coordinator upon notification that a consumer's meter was faulty.	Dodo Power and Gas — one infringement notice (\$20,000). Origin Energy — two infringement notices (\$40,000). EnergyAustralia — four infringement notices (\$80,000). https://www.aer.gov.au/retail-markets/compliance/enforcement-matters/dodo-power-and-gas-origin-energy-and-energyaustralia-alleged-breaches-of-the-metering-rules
Selling energy without appropriate authorisation or exemption.	Discovery parks — two infringement notices (\$40,000). https://www.aer.gov.au/retail-markets/compliance/enforcement-matters/discovery-parks-requirement-for-authorisation-or-exemption
Failure to obtain explicit informed consent.	EnergyAustralia — four infringement notices (\$80,000). https://www.aer.gov.au/retail-markets/compliance/enforcement-matters/energyaustralia-infringement-notices-issued-for-failure-to-obtain

²⁸ Ibid, p. 17.

ALLEGED COMPLIANCE ISSUE	ENERGY RETAILER, PENALTIES PAID/STATUS
	-explicit-informed-consent
Breach of hardship policy rules.	EnergyAustralia — civil proceedings ongoing. https://www.aer.gov.au/retail-markets/compliance/enforcement-matters/energyaustralia-obligation-to-implement-hardship-policy-and-offer-and-apply-payment-plans
De-energisation of consumers in breach of rules.	Origin — four infringement notices (\$80,000). https://www.aer.gov.au/retail-markets/compliance/enforcement-matters/origin-energy-de-energisation-obligations
Failure to comply with life support requirements.	EnergyAustralia — civil proceedings ongoing (also includes penalties for a breach of enforceable undertaking). TasNetworks — three infringement notices (\$60,000) (Penalties for the failure to provide consumers with adequate notification of supply interruption). https://www.aer.gov.au/retail-markets/compliance/enforcement-matters/energyaustralia-life-support-obligations https://www.aer.gov.au/retail-markets/compliance/enforcement-matters/tasnetworks-breaches-of-life-support-obligations

Source: AER

Audits

During 2019-20, three energy retailers (Amaysim, Alinta, Simply Energy) participated in a compliance audit in connection with their obligations under the NERL and NERR to obtain and record consumers' explicit informed consent to certain transactions.²⁹

2.4.2 ESC compliance and enforcement

The ESC regularly monitors and reports on how retailers are complying with their requirements under the Retail Energy Code, as well as issuing penalty notices for breaches of the code and relevant legislation.

Table 2.5: ESC compliance

COMPLIANCE ISSUE	ENERGY RETAILER, PENALTIES PAID/STATUS
Failure to obtain explicit	<ul style="list-style-type: none"> Amaysim Energy— 30 infringement notices (\$600,000).

²⁹ Some obligations reviewed by the audits included the transfer of a consumer from one retailer to another, the entry by a consumer into a market retail contract, and any term or condition in a market retail contract that provides for the variation of tariffs, charges or benefits to the consumer under that contract. See, <https://www.aer.gov.au/retail-markets/compliance/audits>

COMPLIANCE ISSUE	ENERGY RETAILER, PENALTIES PAID/STATUS
informed consent.	<ul style="list-style-type: none"> Alinta Energy— 14 infringement notices (\$280,000). Simply Energy — 15 infringement notices (\$300,000). https://www.esc.vic.gov.au/electricity-and-gas/market-performance-and-reporting/company-penalty-notices/amaysim-energy-penalty-notices-2020-explicit-informed-consent
Failure to apply concessions.	<p>Momentum Energy — 60 infringement notices (\$900,000). In October 2019, the ESC accepted an enforceable undertaking from Momentum regarding refunds to customers who had been overcharged by failing to apply concessions to each customer's account.</p> https://www.esc.vic.gov.au/electricity-and-gas/market-performance-and-reporting/company-penalty-notices/momentum-energy-penalty-notices-2019-customer-overcharging
Failure to give sufficient notice.	<p>CitiPower and Powercor — six infringement notices (\$80,000).</p> https://www.esc.vic.gov.au/electricity-and-gas/market-performance-and-reporting/electricity-and-gas-company-undertakings/citipower-and-powercor-penalty-notices-2019-planned-interruption-notifications

Source: ESC

Audits

In 2019-20, the ESC audited electricity distribution businesses and examine how they ensure smart meters are performing to industry standards, including the effectiveness of smart meters to provide actual meter readings. The ESC also audited seven energy retail businesses. The focus for the audit for retailers is on compliance with new energy reforms implemented from 1 July 2019, such as VDO and the payment difficulties framework.³⁰

2.4.3 ACCC compliance and enforcement

On 18 July 2019, the ACCC announced that M2 Energy Pty Ltd (Dodo) and CovaU Pty Ltd (CovaU) had paid penalties totalling \$37,800 and \$12,600 respectively. The retailers had been issued with infringement notices for allegedly misleading claims about discounts available on their energy plans.³¹

2.5 Changes to regulation and policy

Further to the developments discussed in the above sections, over the past year there have been eleven actions taken by jurisdictional governments and industry with the aim to improve

³⁰ ESC, Energy audit program 2019-20, accessed from: <https://www.esc.vic.gov.au/electricity-and-gas/market-performance-and-reporting/compliance-and-auditing-activities/energy-audit-program-2019-20>.

³¹ ACCC. media release: Dodo and CovaU to refund customers and pay penalties over energy discount claims, 18 July 2020, accessed at: <https://www.accc.gov.au/media-release/dodo-and-covau-to-refund-customers-and-pay-penalties-over-energy-discount-claims>.

the consumer experience in the retail energy market. This section also outlines developments with the Energy charter process.

2.5.1 Energy charter

In January 2019, 12 of the largest electricity and gas companies (including six retailers) signed the Energy charter, a document which sets out their commitment to energy consumers. Signatories to the charter are required to publicly disclose how they are meeting or making progress towards their commitments in the charter. These disclosures would be evaluated by an independent panel.

In October 2019, energy businesses submitted their first disclosures to the process. Stakeholders were also given a chance to comment on the disclosures. This was followed, in December 2019, by the release of a report from the independent panel on the disclosures.³² The report made 31 recommendations to the energy businesses organised in six themes. Three of these themes are summarised below:

- "Go above and beyond compliance": Signatories should demonstrate behaviour and initiative to deliver better consumer outcomes, for example financially acknowledging consumer loyalty.
- "Close the loop initiatives": Signatories should conduct activities to confirm that their programs actually led to improved consumer outcomes.
- "Elevate and optimise dispute resolution": Signatories should ensure complaints data is complemented by proactive outreach and community engagement. Research is also required to identify problems for consumers who either cannot or will not complain because of various socio-economic barriers.

2.5.2 Jurisdictional government actions

Table 2.6 below illustrates new policies introduced by jurisdictional governments since June 2019 to improve consumer experience:³³

Table 2.6: Government actions

ACTION, JURISDICTION	DESCRIPTION
Victorian healthy homes, Victoria.	A home energy efficiency program that provides free home energy upgrades to up to 1,000 Victorians who live with complex healthcare needs, and have low incomes, in Melbourne's western suburbs and the Goulburn Valley. https://www.sustainability.vic.gov.au/Grants-and-funding/Victorian-Healthy-Homes-Program

³² The Energy Charter independent accountability panel, Building trust together - Evaluation report 2019 Energy charter disclosures, November 2019, accessed at: <https://theenergycharterpanel.com.au/wp-content/uploads/2019/12/ECIAP-Report.pdf>.

³³ Table current as of June 2020.

ACTION, JURISDICTION	DESCRIPTION
Energy savvy upgrades, Victoria.	Subsidised energy efficiency and renewable energy upgrades to a limited number of low income households such as concession card holders. https://www.victorianenergysaver.vic.gov.au/get-help-with-your-bills/concessions-and-rebates/home-energy-assist-program
Amendments to the New South Wales Social programs for Energy code, New South Wales.	Amendments to the New South Wales Social Programs for Energy Code were published. These changes commenced from 3 November 2019. https://energy.nsw.gov.au/government-and-regulation/legislative-and-regulatory-requirements/social-programs-energy-code#-amendments-to-the-nsw-social-programs-for-energy-code-
Hunter region solar and battery scheme, New South Wales.	Eligible home owners in the New South Wales Hunter region will be provided with access interest-free loans to install solar battery systems. https://energysaver.nsw.gov.au/households/solar-and-battery-power/solar-battery-loan-offer
Energy efficient appliance upgrades, New South Wales.	Eligible New South Wales households will have access to: <ul style="list-style-type: none"> discounts on installing an air conditioner with a high star rating. Discounts vary with the size of the unit, and can be worth up to \$1,000. discounts on new energy efficient fridges (40% discount) and televisions (50% discount) discounts when replacing old lights with new LED lights https://energysaver.nsw.gov.au/households/rebates-and-discounts/discounted-energy-efficient-air-conditioners-households https://energysaver.nsw.gov.au/households/rebates-and-discounts/appliance-replacement-offer https://energysaver.nsw.gov.au/households/rebates-and-discounts/discounted-energy-efficient-lighting-households
Energy Savvy Families, Queensland.	Stage 2 of the program resulted in 4,000 low income families in regional Queensland being provided with a digital meter, advice on energy efficiency savings and access to monthly energy bills. https://www.energysavvy.com.au
Solar for renters trial, Queensland.	Program helping landlords and tenants install solar PV systems and share the financial benefits. Around 1,000 rebates of up to \$3,500 were available to eligible applicants in Bundaberg, Gladstone and Townsville. https://www.qld.gov.au/community/cost-of-living-

ACTION, JURISDICTION	DESCRIPTION
	support/concessions/energy-concessions/solar-for-rentals-trial
Interest Free Loans for Solar and Storage, Queensland.	Grants and interest-free loans available for solar systems and battery storage systems. Almost 3000 batteries have now been installed. https://www.qld.gov.au/community/cost-of-living-support/concessions/energy-concessions/solar-battery-rebate
Business Energy Savers Program, Queensland.	\$20 million program to provide free energy audits to agricultural customers and businesses. Over 110 audits have been delivered to farms and other businesses, and grants are now being provided to assist implementation of audit recommendations. https://www.business.qld.gov.au/running-business/energy-business/energy-saving/business-energy-savers
Prohibition on Exit Fees, South Australia.	The Electricity (General) Regulations and Gas Regulations were amended to prohibit energy retailers in South Australia from offering energy market contracts that include early termination fees, except in two specific circumstances. The Regulations came into effect on 30 December 2019. https://www.legislation.sa.gov.au/LZ/C/R/ELECTRICITY%20(GENERAL)%20REGULATIONS%202012/CURRENT/2012.199.AUTH.PDF
No Interest Loans Scheme (NILS), Tasmania.	Provision of \$250,000 per annum over four years to provide assistance to low income earners that have not previously been able to take advantage of the Tasmanian Energy Efficiency Loan Scheme. This assistance will be delivered via a partnership with Aurora Energy and NILS Tasmania, and will augment the existing Energy Saver Loan and Subsidy Program. https://nilstasmania.org.au/

Source: Jurisdictional government websites.

3 RETAIL ELECTRICITY MARKET STRUCTURE

BOX 5: SUMMARY OF KEY FINDINGS

Observations on retail market structure metrics

The key structural competition metrics over the past year indicate a continued trend to a more competitive retail market:

- The number of competitors in the market increased. Three new electricity retail companies entered the market. Including Nectr which has financial backing from a large global leader in renewable energy, Hanwha Energy. As of March 2020 there were 40 retail brands and 35 retail companies in the NEM.
- Eight existing brands expanded into new jurisdictions. Of note, this included some of the most innovative providers (for example, Energy Locals) which is likely to lead to newer and more diverse product offerings.
- Market concentration continued to decrease in all markets. However, the annual rate of change was lower for all markets than in 2018.
- Switching rates decreased across all markets, except the Australian Capital Territory. There is a continued trend across markets of higher rates of switching from Big 3 to Tier 2 retailers, compared with switching from Tier 2 to Big 3 retailers.

The overall slow down in switching rates is an issue the Commission will monitor in future reviews. The factors that may be contributing to the change in switching are also discussed in Chapter 4.

Retailer views on barriers to entry and expansion in the market

The Commission considers the opinions and observable actions of retailers are good indicators of barriers to entry and expansion in the retail market. Importantly, while the Commission accepts and reports these views, it does not endorse them. Retailers indicated re-introduction of regulated standing offers, regulatory divergence in Victoria, and market liquidity as the three biggest barriers to entry and expansion in the market. In particular:

- Retailers reiterated concerns raised in 2019 that regulated standing offers are lessening competition, observable through a decrease in switching. They also state there are fewer resources available to work on product innovation as they have been directed to compliance.
- Retailers considered the regulatory divergence between jurisdictions has increased in the past 12 months, particularly in Victoria where the recommendations from the Thwaites Review are being implemented.
- Standalone retailers viewed access to competitively priced hedging as a much larger barrier to entering and expanding in the market than retailers with generation.

The Commission notes that, despite retailers' views on barriers to entry and expansion, the

market continues to see new entry. Smaller retailers are also continuing to expand their market share, albeit at a slower rate.

This chapter analyses changes in market structure metrics over recent years, in particular the last 12 months. Analysing the structure of a market provides an indication of how receptive a market may be to fostering a competitive environment. No single indicator at a single point-in-time is able to independently reveal whether a market is effectively competitive and delivering good outcomes for consumers. The Commission therefore analyses multiple indicators over an extended period. The Commission considers the following metrics when assessing market structure:

- number and structure of active retailers
- retail market concentration and retailer market share
- customer switching between retailer types (as an indicator of competitive rivalry)
- retailers' views on barriers to entry or expansion
- economies of scale and scope.

Most of the data presented is sourced from AEMO, the AER, and the ESC. However, in relation to retail barriers to entry and expansion we primarily rely on information provided by retailers because they are best placed to assess barriers to their own entry and expansion in the retail market. Our engagement with retailers consists of both a survey and interviews. In the past the survey has required written responses from retailers. However, this year we trialled an online survey with the majority of questions being multiple choice. This simplified response method has allowed the AEMC to quantify results and receive more than double the usual number of responses. The survey and interviews were carried out in January to March 2020 and involved retailers of various sizes and business structures. A full list of engaged retailers is shown on the microsite. The Commission does not endorse the expressed views of retailers, but acknowledges that their opinions and observable actions are the best indicators of barriers to entry and expansion.

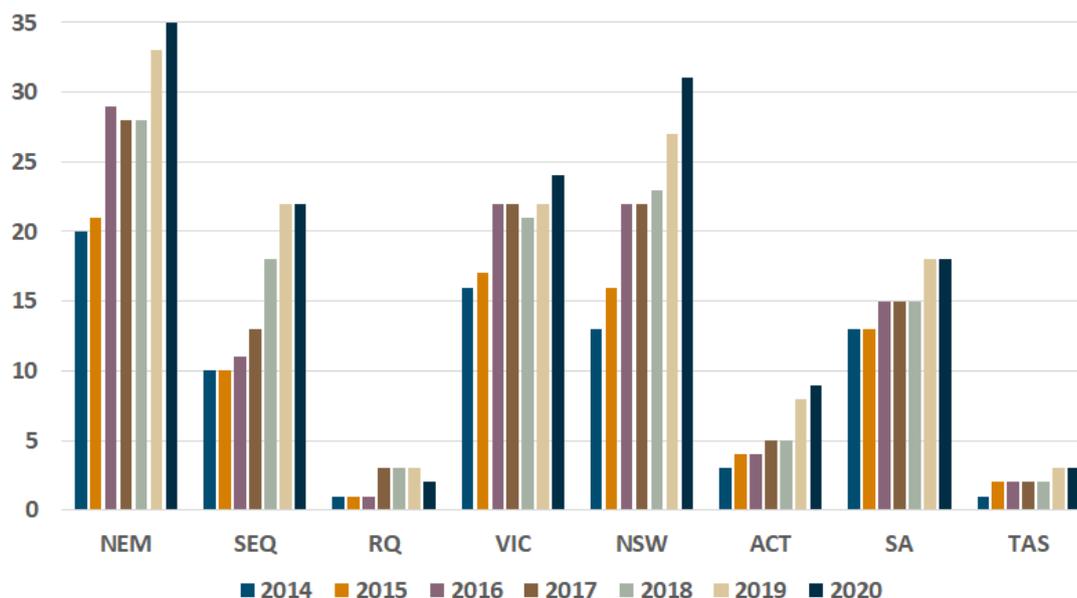
3.1 Electricity market structure

3.1.1 Active electricity retailers

As of March 2020, there was a total of 40 active retail electricity brands in the NEM, operated by 35 electricity companies.³⁴ Figure 3.1 below breaks this down by jurisdiction.

³⁴ An active retailer is defined as having offers available on Energy Made Easy website and more than 50 customers in a distribution area of that jurisdiction.

Figure 3.1: Active electricity retail companies



Source: AEMO, AEMC analysis

Over the past 12 months Discover Energy, Future X Power, and Nectr entered the market and nine existing retailers expanded their operations into new jurisdictions:

- Commander Power & Gas have entered South East Queensland³⁵ and South Australia
- Elysian Energy has entered NSW
- Globird has entered NSW
- Locality Planning Energy has entered NSW
- Mojo has entered South Australia
- Energy Locals has entered Victoria
- Powerclub has entered Victoria
- Powerdirect has entered ACT
- Simply Energy has entered ACT

Another new retailer, Ovo Energy, entered the retail market in NSW and South East Queensland in late 2019. Ovo energy is the second largest electricity retailer in the UK having entered the UK market around 10 years ago. While it did not have sufficient customer numbers to qualify as an 'active retailer' at the time of this report and is not included in figure above, we expect Ovo Energy will increase its customer base over the next year and will most likely count as an active retailer in the 2021 report.

³⁵ CovaU entered South East Queensland in early 2020 although did not yet have the required customer numbers to qualify as an 'active retailer'.

Embedded network retailers (on-sellers) have been excluded from the figure above and in this review. Embedded networks are privately owned electricity distribution networks and serve multiple customers, but are exempt from registering as authorised retailers.³⁶ The number of registered embedded networks throughout the NEM continues to grow.³⁷ There are currently more than 7,500 embedded networks registered,³⁸ although there are likely more than this due to registration as an exempt seller of electricity not being compulsory for all categories of embedded networks. In 2019 the Commission published a final report that proposed a package of law and rule changes to update the regulatory frameworks for embedded networks.³⁹ If implemented, the proposed framework will result in better protections and access to more competitive retail offers for consumers in embedded networks. Future retail energy competition reviews may provide more detailed analysis of embedded networks.

3.1.2 Structures of electricity retail businesses

Electricity retailers can generally be divided into three groups, depending on their access to generation. Retailers can also be privately or government-owned. Figure 3.2 shows how electricity retailers in the NEM fit into these groups.

Access to generation

- Vertically integrated (gentailers) - where retailers own generation assets as well as selling electricity to customers in the retail market. This group includes retailers with the largest market shares.
- Arm's-length vertical integration - where retailers have access to wholesale hedging contracts through a parent company that owns, or is, a generation business.
- Standalone - where retailers do not own generation, but they may have commercial relationships with generators. Most retailers are standalone but collectively make up a relatively small proportion of the market by market share.

Detailed descriptions of these groups can be found on the microsite.

36 <https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/network-service-provider-registration-exemption-guideline-march-2018>

37 Some state governments indicated there has been an increase in the number of retailers specialising in supplying embedded network customers.

38 For AER regulated states <https://www.aer.gov.au/networks-pipelines/network-exemptions/public-register-of-network-exemptions>, For Victoria <https://escvic.microsoftcrmportal.com/rex-home/>

39 <https://www.aemc.gov.au/market-reviews-advice/updates-regulatory-frameworks-embedded-networks>

Figure 3.2: Structure of electricity retail businesses in the NEM



Source: AEMC

Note: A retail business that is 'at arm's length' from their parent business who owns, or is, a generation business.

Section 3.2.3 looks at retailers' views on how access to generation affects their ability compete in the retail market.

3.1.3

Market share of electricity retailers and market concentration

This section examines the changes in the market share of both vertically integrated and standalone retailers, and the impact of these changes on the electricity retail market structure.

Most NEM retail market reviews describe a group of retailers — Origin Energy, AGL and EnergyAustralia — as being the Big 3. This is due to their market influence and those businesses having the largest market shares NEM-wide. However, some medium-sized retailers have continued to increase their market share, to the point where in some network regions they are a part of the 'Big 3', such as:

- Alinta Energy is the third biggest retailer in Energex network region (South East Queensland) after Origin and AGL.
- Simply Energy is the third biggest retailer in SA Power Networks region (South Australia) after AGL and Origin.

- Red Energy and Lumo Energy in Essential Energy region (New South Wales) after Origin and AGL.

The exceptions to the regions dominated by the Big 3 incumbent retailers are the Australian Capital Territory, Tasmania and regional Queensland. The incumbent retailers in each of these jurisdictions are:

- ActewAGL Retail — a joint venture of AGL and Icon Water (formerly ACTEW Corporation) in the Australian Capital Territory
- Aurora Energy in Tasmania
- Ergon Energy Retail in regional Queensland.

While both the ACT and Tasmania have allowed retail competition, regulated price caps apply in these jurisdictions and competition has developed more slowly. These markets are still maturing and are yet to see the shift in market structure that is being observed in the other NEM regions. Retailers noted in interviews that entry into and operation in these markets is difficult due to price regulation and the small size of the customer base. Ergon Energy Retail remains the dominant retailer in Regional Queensland because of the large per-customer government subsidy to Ergon to ensure regional customers pay a similar price to customers in the South East Queensland market. Competing retailers in Regional Queensland do not receive this government subsidy.

Market concentration

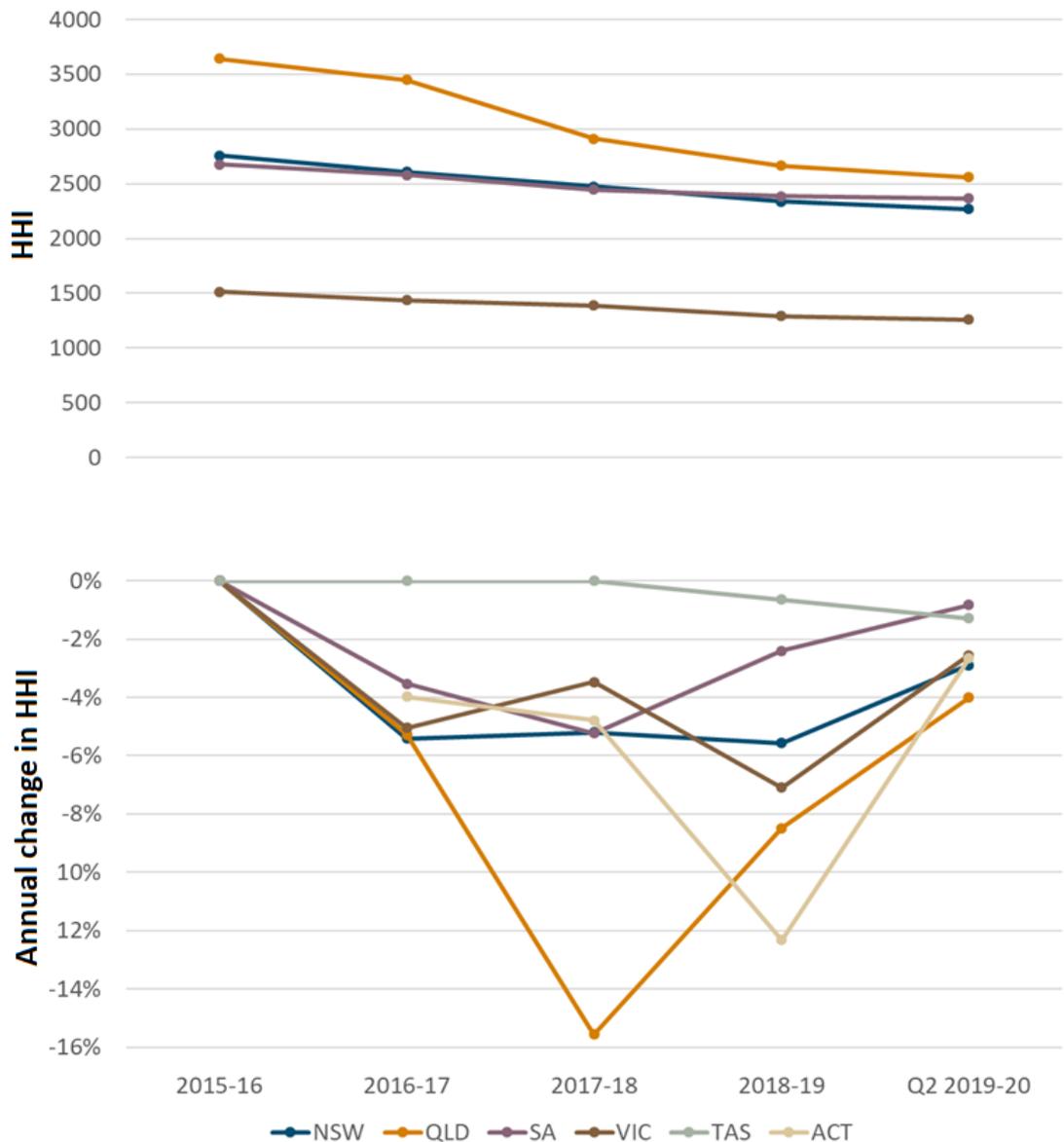
The Herfindahl-Hirschman Index (HHI) is a commonly used measure of market concentration. It is calculated by summing the squares of the market share of all firms competing in a market. A decrease in the HHI over time indicates a decrease in market concentration and may indicate a more competitive market.

The top chart in Figure 3.3 shows that market concentration continued to decrease in 2019 for all NEM jurisdictions with retail contestability. Victoria, which has been deregulated for the longest period, continues to have the lowest market concentration in the NEM.

The bottom chart in Figure 3.3 shows the rate of change in the HHI. It demonstrates that the reduction in market concentration was slower in all jurisdictions in 2019-20 compared to 2018-19, except in NSW where the rate has been relatively stable over the past few years, and in Tasmania where concentration has rarely changed previously.

This trend of a slowing in the decrease of market concentration in 2019-20 is consistent with a decrease in switching, as noted and discussed further in section 3.1.4.

Figure 3.3: HHI and annual change in HHI for 2015-16 to Q2 2019-20 (electricity)



Source: AEMO and ESCV, AEMC analysis.

Note: The Australian Capital Territory and Tasmania's HHI are not shown in the top chart because these were significantly higher scores and would distort the scale. These values can be seen on the market share graph in the next section.

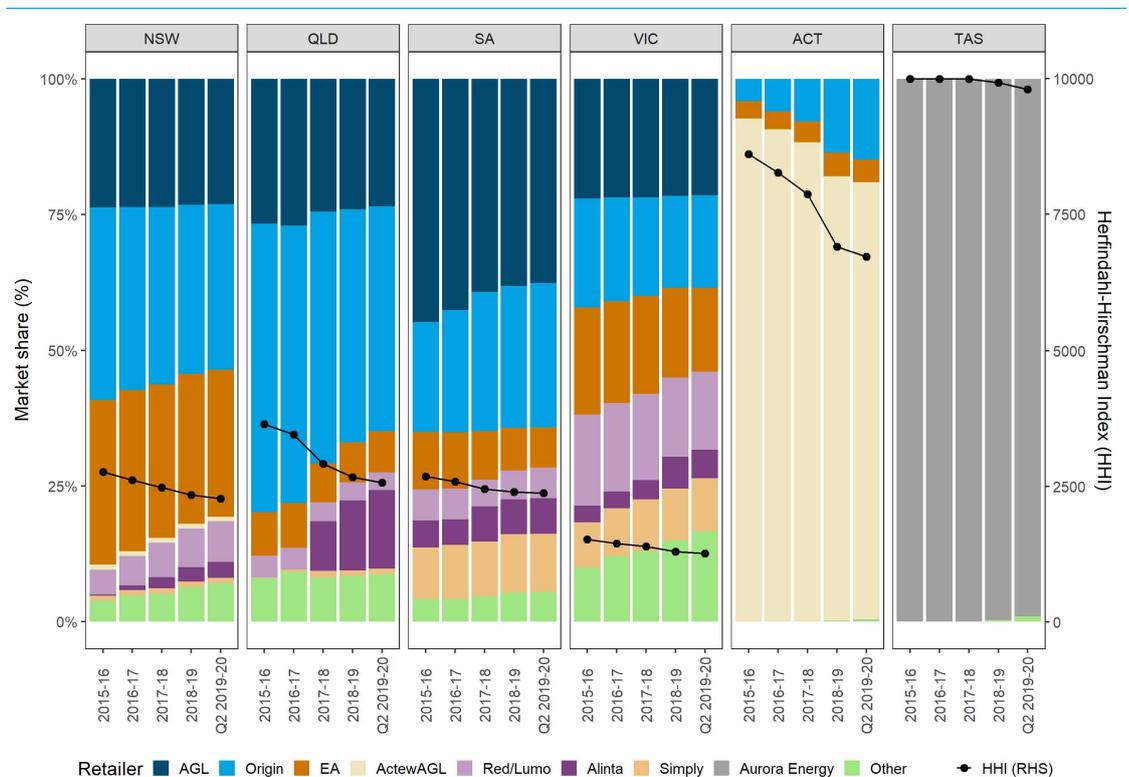
Note: The values shown for Q2 2019-20 are based on six months of data.

Market share

Market share is one of multiple metrics used by the Commission to assess the level of competition as competitive markets generally exhibit low levels of market concentration and a diversity of business types. A less concentrated market gives consumers choice of retailers

and incentivises retailers to compete and provide offers that consumers value. The retail electricity market is becoming less concentrated over time. Over the past five years, Figure 3.4 shows the decreasing share of the 'Big 3' and increasing market share of the medium-sized retailers as well as an increasing collective market share for the smaller retailers represented as 'Other'.

Figure 3.4: Changes in market share and HHI, 2015-16 to Q2 2019-20 (electricity) - residential



Source: AER and ESCV, AEMC analysis

Note: Queensland refers to the South East Queensland region. The market share measures (and related HHI calculations) were taken from the fourth quarter of each financial year, except in 2019-20 where only two quarters of data was available.

Analysis of market share in the retail market at a NEM-wide level shows that the three incumbent retailers continue to have the largest market share. However, the three businesses with the largest market share in some network regions no longer consist of the Big 3. This has been a significant shift in the retail electricity market structure over the past few years and retailers noted in their interviews that this shift has fundamentally changed the way that these jurisdictional retail markets are operating.

In the retailer interviews, many retailers reiterated the expanding category of the big gentailers from 3 to the 'big 5/6', although considered that this discussion should not diminish the strong generation position and significant economies of scale advantage that the three incumbent retailers have NEM wide.

While the majority of retailers noted that customer churn was down over the past 12 months, on the whole customer movements favoured Tier 2 retailers and the trend of decreasing market concentration continued, including:

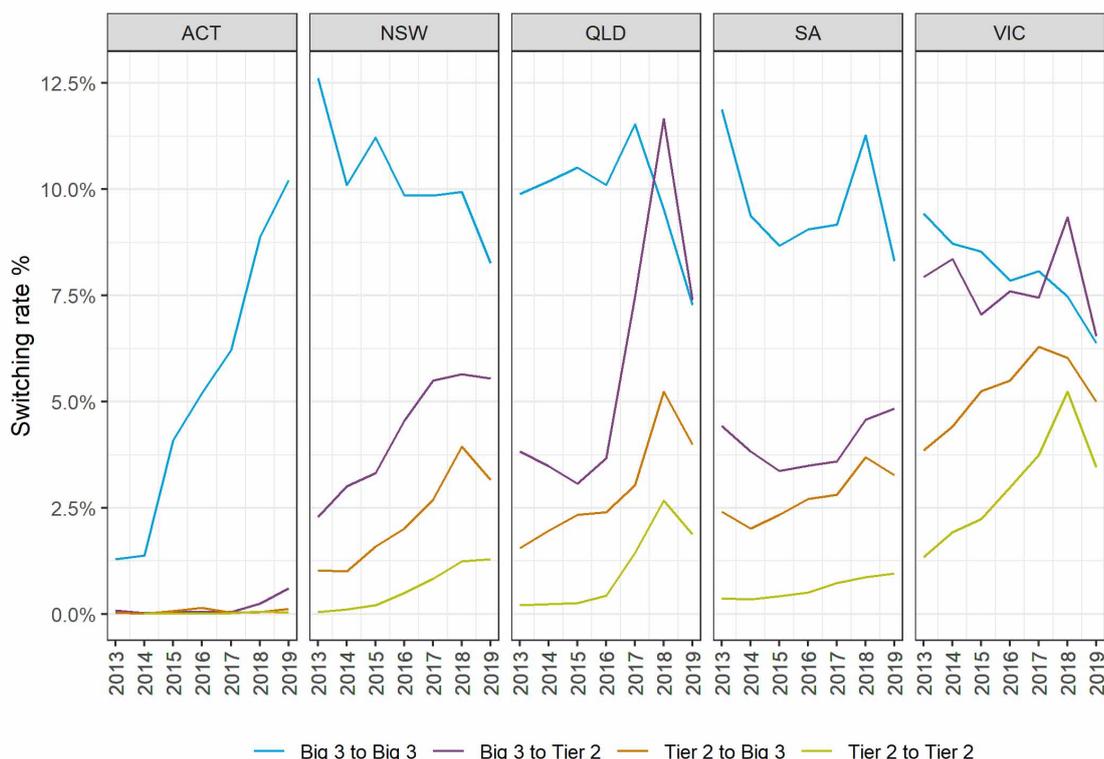
- The continued expansion of Alinta in South East Queensland with another 46,000 customers gained over the past 12 months. This is in addition to the 158,000 customers gained in the two years prior. Over the same 12-month period in South East Queensland Origin Energy lost 27,000 customers.
- The four largest customer numbers gained in NSW over the past 12 months are with none of the incumbent retailers, with Red Energy gaining 34,000, Alinta gaining 14,000, Momentum Energy gaining 14,000, and Energy Locals gaining 11,000. In NSW over the same period Origin Energy and EnergyAustralia lost 17,000 and 10,000 customers respectively.

3.1.4 Consumers switching between retailer types

Consumer switching between electricity retailer groups can provide an indication of where the shifts in retailer market shares have occurred. In turn, this can indicate where consumers find value for their money and how they are reacting to changes in market offers.

Information about consumer switching between different types of retailers provides an indicator of progress in achieving effective competition in a market. Further, the rate of switching between the Big 3, and from tier 2 retailers to the Big 3, provides an insight into how effectively the incumbent retailers are competing for consumers. Consumer behaviour, such as overall switching and consumer satisfaction, is discussed further in **Chapter 5**.

Figure 3.5: Consumer switching within and between retailer tiers, yearly average between 2013 to 2019



Source: AEMO, AEMC analysis

The main conclusions that can be drawn from Figure 3.5 are:

- overall consumer switching decreased in 2019
- there is a continued trend across regions of higher rates of switching from Big 3 to Tier 2 retailers, compared with switching from Tier 2 to Big 3 retailers.

Chapter 4 assesses pricing behaviour from retailers, and notes a decrease in price dispersion in 2020. The drop is a result of a reduction in the highest residential and small business standing offers due to the DMO and VDO, and a general increase in lower priced residential offers (as well as small business offers in some distribution areas).

The Commission considers contributing factors to the decrease in switching may be the:

- decrease in price dispersion, particularly as the lower priced offers have increased, reducing the incentive for customers to engage in the market
- increase in consumer sentiment for satisfaction and value for money for their electricity service (see Chapter 5).

The Commission will continue to monitor switching behaviour in future reviews to see if these observations are sustained over a longer period. These factors are also discussed in Chapter 4.

3.2 Retailers' views on barriers to entry and expansion (electricity)

This section focuses on retailer views on barriers to entry and expansion in the retail electricity market, as expressed in the retailer online survey and interviews conducted by AEMC staff. The survey and interviews were conducted over January to March 2020. The Commission does not endorse the expressed views of retailers, but acknowledges that their opinions and observable actions are good indicators of barriers to entry and expansion.

Retailers noted the following issues that have an impact on their ability to enter or expand in a market are:

- introduction of a regulated price cap on standing offers
- jurisdictional regulatory divergence
- wholesale market liquidity.

While some retailers considered the volume of reform a barrier to expansion as it increased the resources needed for compliance, other retailers accepted the reforms as 'part and parcel' of being a retailer, and only noted reforms as barriers if the implementation or practical implications were driving perverse outcomes.

3.2.1 Introduction of a price-cap on standing offers

Background

As noted in chapter 2, a regulated price cap was introduced for standing offers in Victoria by the Victorian government, and in New South Wales, South Australia and South East Queensland by the Commonwealth Department of Environment and Energy (DoEE).

While both are price caps on standing offers, the two have different objectives::

- the default market offer's (DMO) objective is to remove unjustifiably high standing offer prices, while also providing consumers and retailers with incentives to participate in the market.
- the Victorian default offer's (VDO) objective is to provide customers who either cannot or do not engage in the retail market with an efficient price that will compete with other market offers, while not necessarily being the lowest priced offer. The VDO is therefore set significantly lower than the DMO.

In the AEMC's 2019 review, prior to the introduction of price caps on standing offers, retailers raised concerns that the price caps would:

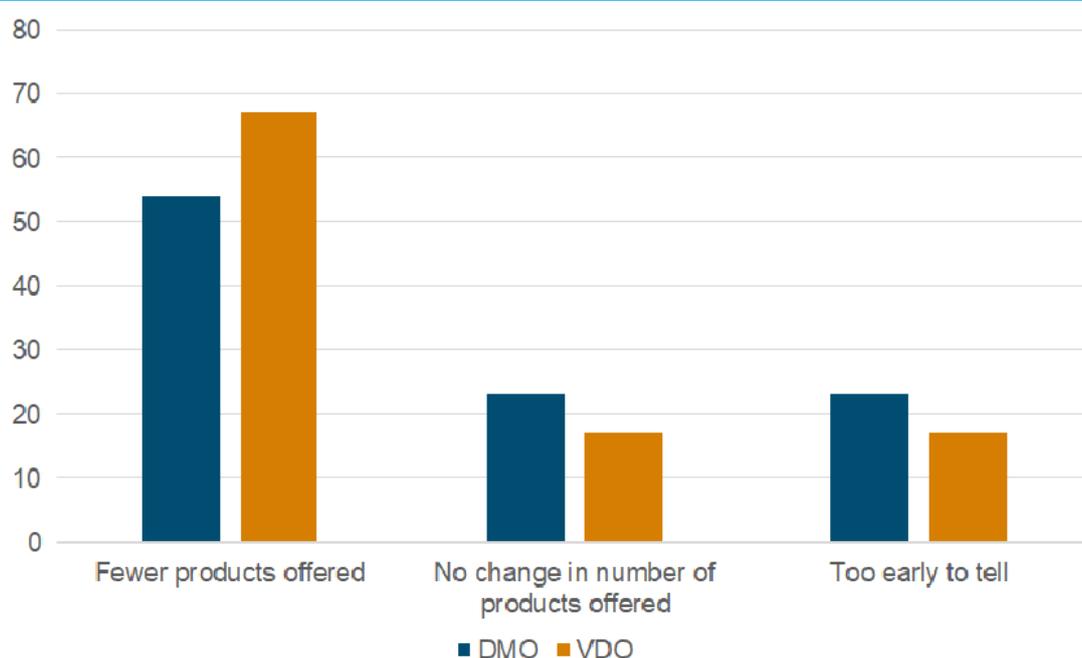
- entrench the market share of the Big 3 retailers
- reduce switching activity between retailers
- increase the compliance burden for retailers
- reduce time and resources retailers can spend on innovation and product development.

What retailers said in 2020

In early 2020, six months after the introduction of a regulated price cap on standing offers, retailers reiterated these concerns and considered the regulated standing offers are lessening competition. In particular, retailers noted that:

- switching/market churn was down. Some retailers noted that there is now a perception there is less value in looking for a better offer because discount offers are being advertised off a lower baseline. Customers may also feel a sense of comfort being on a government regulated offer, even though there are lower priced offers available.
- less resources working on product innovation. Most retailers noted more resources have been directed into compliance which meant that they had to divert resources away from product and service innovation, and that front line staff are struggling to cope with the volume of regulatory change. Although, there was a consensus among retailers that once the initial issues around implementation and compliance had settled, there would need to be a renewed focus on differentiating offers by means other than price discounts because large discounts were no longer possible.
- they would offer fewer products and services in the market. Retailers noted the re-introduction of a price cap has narrowed the range for offers to be made, see Figure 3.6.

Figure 3.6: Retailers indicate the impact on products and services of the re-introduction of a price-cap on standing offers



Source: AEMC's 2020 retailer survey.

Some retailers noted that they supported, in principle, the introduction of the comparison rate component of the price regulation because:

- prior to regulated standing offers, market offers were being advertised with conditional discounts approaching 50%, which can be confusing and misleading for customers, and creates general mistrust with the retail sector.
- it reduced the ability for large retailers to have high standing offers for dormant/disengaged customers, which gave them a high revenue stream and the unfair ability to compete aggressively for save/winbacks and new customers.

Some retailers found it difficult to advertise some offers while meeting the requirements to compare market offers with the regulated price (referred to as the 'reference price' when engaging with customers). These offers include spot market pass through offers or offers that included a feed in tariff (FIT) for solar. A FIT offer would need to be advertised higher than would be the case as the FIT component could not be accounted for in the comparison to the reference price. Retailers stated the VDO and DMO are blunt instruments that hopefully will be refined and become more flexible in their application in future iterations.

Retailers noted similar concerns for both the VDO and DMO, however most retailers considered the Victorian market was harder to compete in as the VDO was set lower than the DMO in New South Wales, South Australia and South East Queensland. Most retailers commented it was hard to make a profit in Victoria, with one retailer noting it will leave Victoria in the next 12 months if it cannot make a profit.

Retailers had to increase resources dedicated to administration and compliance when the pricing reforms were introduced, but this is not necessarily a 'barrier to entry' on its own.

The Commission's preliminary analysis

The Commission did not support the reintroduction of regulated prices due to concerns that price regulation would reduce:

- switching
- the level of competition and incentive for new entrant retailers
- price innovation
- incentives for consumers to engage in the retail market.

Initial analysis shows that while the VDO and DMO have achieved their primary objectives to reduce high standing offer prices:

- switching has generally decreased (see section 3.1.4), although importantly tier 2 retailers are making market share gains
- the reduced switching indicates that there may be fewer customers incentivised to engage in the market
- price dispersion and the availability of lower priced offers has decreased, particularly in Victoria (see Chapter 4)
- Retailers indicated that fewer resources are working on price innovation, and there are fewer offers in the market
- Consumers' satisfaction with the value for money for their electricity service has increased which may be a factor that has contributed to lower switching rates (see Chapter 6).

The Commission acknowledges that the DMO and VDO have only been in place for 12 months and that a longer term assessment of the impact of price regulation needs to occur. The Commission will continue to monitor the above metrics, but notes that understanding what each customer actually pays for electricity would greatly inform regulatory analysis and the policy debate. It will be considering how this data could be obtained in a forthcoming rule change.⁴⁰

On the initial evidence, the Commission considers re-regulating prices may have reduced some competition metrics in jurisdictions where the DMO and VDO have been introduced. However, the Commission notes that over the past year new retailers have entered the market, and existing retailers expanded into other jurisdictions, including Victoria.

3.2.2

Regulatory divergence

Background

The NECF was designed to regulate the sale and supply of electricity and gas to small retail customers across the NEM. Its purpose was also to provide national consistency to lower compliance costs and reduce barriers to entry and expansion. However, state and territory laws can modify the application of parts of the National Energy Retail Law (NERL) and associated the NERR in that state or territory. This has resulted in different versions of the NECF applying in each state or territory. Furthermore, the NECF does not apply in Victoria as it has its own framework under the Energy Retail Code.

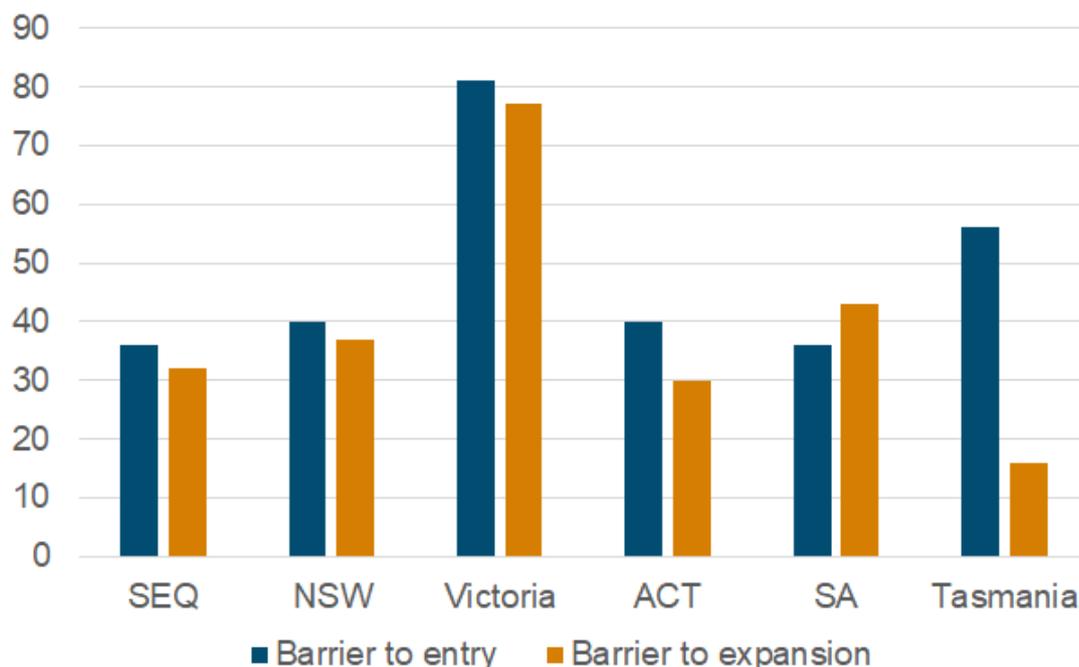
What retailers said in 2020

In the online retailer survey, retailers were asked to use a slider scale to indicate how much of a barrier 'different retail licence arrangements/regulations' are to entering and expanding in the retail market between regions. The slider scale went from 0 (not a barrier) to 100 (a very strong barrier).

Figure 3.7 shows that retailers perceive Victoria's retail licence arrangements/regulations the highest barriers to entry and expansions relative to the other jurisdictions. This is not surprising, as noted above, the consumer protection framework retailers must comply with is different in Victoria compared with the other jurisdictions.

⁴⁰ <https://www.aemc.gov.au/rule-changes/retail-market-transparency>

Figure 3.7: Retailers indicate how much of a barrier different licence arrangements and regulations are to entry and expansion



Source: AEMC's 2020 retailer survey.

While this has been an issue in the past, retailers considered the divergence has increased in the past 12 months as the recommendations from the Thwaites Review are being implemented.⁴¹ These changes include the following reforms implemented on 1 July 2019:⁴²

- **VDO:** The VDO is a regulated price cap for standing offers and was introduced from 1 July 2019. This meant that customers who were on standing offers higher than the VDO price would be switched to the VDO price in their distribution area.
- **Best offer entitlement:** Where energy retailers must provide a written notification on their customer's bill, advising the customer if they have a better plan available and how much the customer could save by switching to that plan.
- **Prior warning of bill changes:** Where retailers must notify customers at least five days before a price change, or the end of a customer's 'benefit period' (i.e. when their 'low introductory price' ends), to let the customer know their price is changing. At the same time, retailers must include a 'best offer' message if they have a better plan for the customer and let them know how much they could save by switching.

⁴¹ https://www.energy.vic.gov.au/_data/assets/pdf_file/0034/396583/Independent-and-Bipartisan-Review-of-the-Electricity-and-Gas-Retail-Markets-in-Victoria.pdf

⁴² <https://www.ewov.com.au/customers/1-july-2019-victorian-energy-market-reforms>

- **Clear advice entitlement:** Where retailers must provide useful, clear advice to customers who contact them to switch to a better offer. For example, this may include advice that a customer will only make a saving on a 'best offer' if they are able to take advantage of a pay on time discount.
- **Fact sheet for customers:** Where energy retailers must use standardised fact sheets with basic information about their plans for quick reference so customers can easily compare their plan with others on the market. The fact sheets must show the expected average yearly cost for a number of typical customer households. The fact sheets must also be linked to the 'back end' of the Government energy comparison site, [Victorian Energy Compare](#).

The Commission's view

While retailers indicated Victoria has substantially higher barriers to entry and expansion than other jurisdictions, entry statistics are supportive but less definitive of this. There have been two retailers, Energy Locals and Powerclub, expand into Victoria over the past 12 months. Three new retailers entered the NEM in New South Wales and two of these entered South East Queensland. Existing retailers expanded into all jurisdictions, except Tasmania and Rural Queensland.⁴³

3.2.3

Wholesale market liquidity

This section outlines retailers' views on wholesale market liquidity. Why and how retailers interact with the wholesale contract market are addressed in section 3.3.

What retailers said in 2020

Retailers were asked in the online survey to rate wholesale market contract liquidity in each region as either; too low, adequate, good or not sure. Most retailers indicated market liquidity was either adequate or good for each region, although this was lowest in South Australia at just over 50 per cent.⁴⁴

Retailer views on whether contract market liquidity is an issue, from the online survey and interviews, tends to divide retailers into two groups:

- those that can access the required risk management tools to sufficiently hedge themselves do not consider there is a market liquidity issue, and who tend to be vertically integrated businesses.
- typically smaller, standalone retailers, or gentailers who do not have generation assets in a region, who find it harder to appropriately manage their exposure to the wholesale market in a way they would like to.

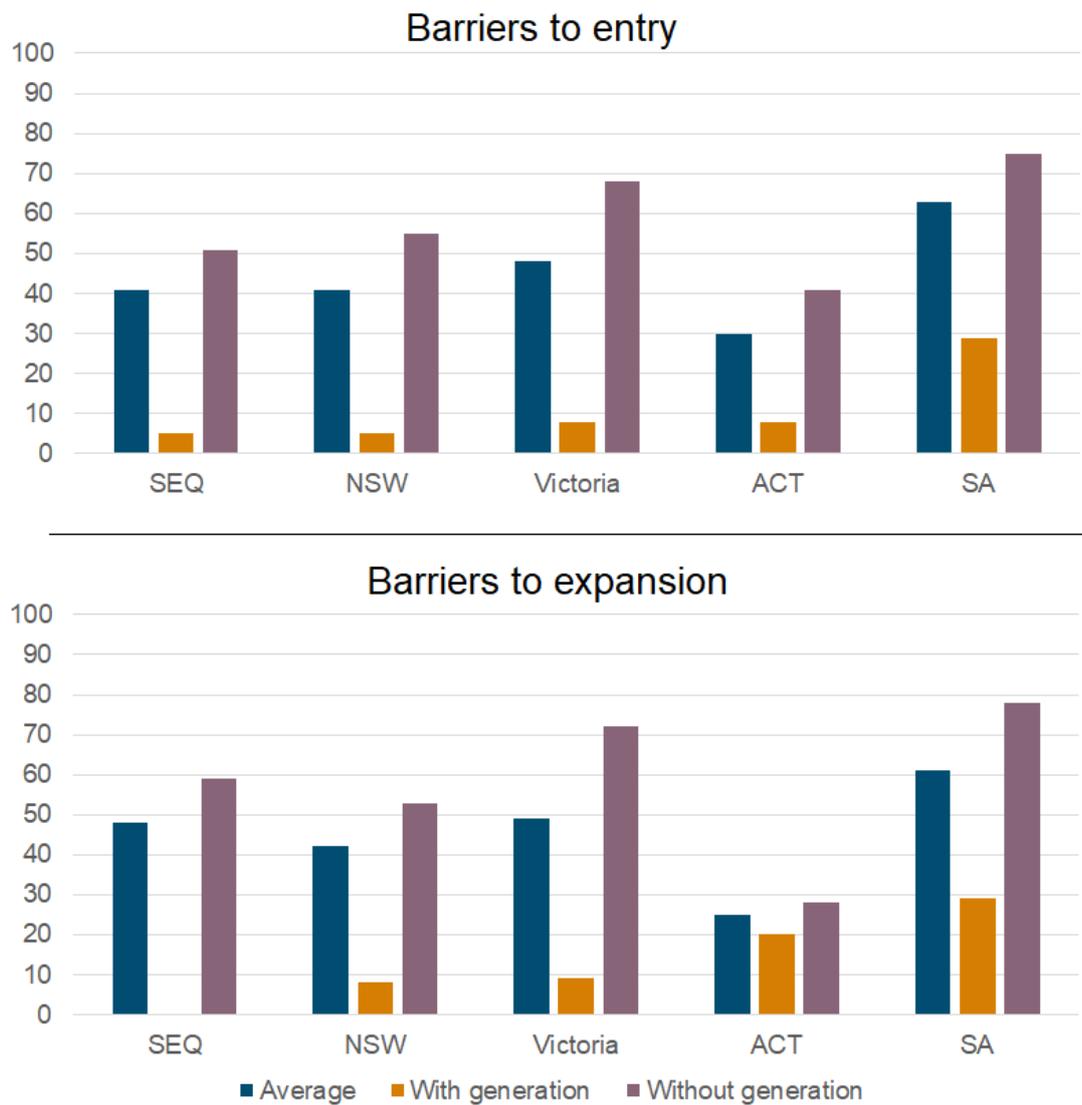
Retailers were asked to use a slider scale to indicate how much of a barrier 'access to competitively priced generation' is to entering and expanding in the retail market between regions. Where 0 is not a barrier and 100 is a very strong barrier. While not surprising, Figure

⁴³ One existing retailer expanded into South East Queensland, three into New South Wales, and two in each of Victoria, South Australia and the Australian Capital Territory.

⁴⁴ Tasmania was excluded from this analysis due to a low number of responses to the question.

3.8 indicates that stand-alone retailers find it more difficult to enter and expand in the retail market than retailers with generation.

Figure 3.8: Retailers indicate how much of a barrier access to competitively priced generation is to entry and expansion



Source: AEMC's 2020 retailer survey.

Note: Tasmania's results were excluded from this analysis due to the low number of responses to the question.

The Commission's view

The issue of liquidity has been raised for a number of years. In 2019, the AEMC decided not to make a rule introducing additional market making schemes as a number of initiatives were already under way, in particular the ASX's voluntary market making scheme, and the market

liquidity obligation (MLO) which is part of the Retailer Reliability Obligation (RRO). Both of these mechanisms commenced on 1 July 2019, and the Commission's analysis found that additional market making arrangements were not likely to be efficient. However, the Commission also recommended that:

- mechanisms to provide 'price discovery' were also required, as the over-the-counter market has limited visibility but is of growing significance as new generation technology increases.
- the regulatory visibility of the contract market needs to improve in order to understand competitive behaviours and market efficiency.

Work on both these recommendations is progressing with the Commonwealth, AER and AEMC and industry.

3.3 Wholesale contract market — managing wholesale spot market risk

Background

The wholesale contract market is an important feature of the NEM, which supports retail competition. Why and how retailers interact with the wholesale contract market are explained in detail on the microsite.

3.3.1 What retailers said about managing wholesale risk

These results are presented as a short summary aggregated at a NEM-wide view. Results by jurisdiction are available on the microsite.

Retailers were asked the following questions:

- How do you manage your wholesale risk?
- When do you start and finish hedging for wholesale costs?
- Has your wholesale market hedging strategy changed over the past 12 months?

How do you manage your wholesale risk?

The majority of retailers used multiple strategies to manage their exposure to the volatility in the wholesale market spot price, including:

- internal contracting e.g. vertical integration
- external contracting e.g. load following hedge or other de-risk strategy
- external contracting through active engagement through the OTC and ASX
- pass through whole costs to customers.

More than 90 per cent of retailers use some form of external contacting.

When do you start and finish hedging for wholesale costs?

The majority of retailers tend to start hedging between 12-24 months out, and finish less than 12 months out. Larger retailers tend to start and finish hedging earlier than smaller retailers.

Has your wholesale market hedging strategy changed over the past 12 months?

The vast majority of retailers have not changed their wholesale market hedging strategy over the past 12 months.

3.4 Economies of scale and scope

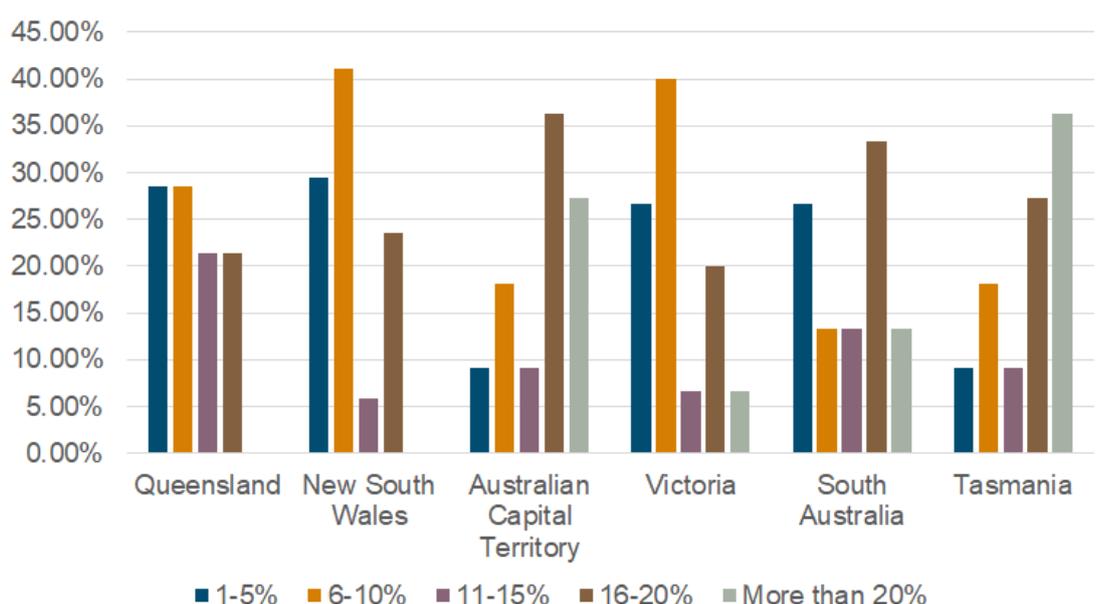
Economies of scale

As with previous reviews, nearly all retailers noted that economies of scale are very important to be able to operate a successful business. Obtaining economies of scale enables retailers to spread the fixed costs and investments associated with providing retail services over a larger customer base. The number of customers to 'achieve scale' differed. Retailers with large older IT systems and sunk capital investment needed more customers to spread these fixed costs. In contrast, newer retailers with lower fixed costs, or business models requiring relatively less upfront capital needed fewer customers to recover costs.

Some retailers also cited that high levels of regulatory divergence and intervention are requiring economies of scale to be reached in each region and not simply across the entire NEM customer base. However, larger retailers continue to note that changing large established systems, which are less agile and more expensive, is difficult in the current ever-changing regulatory environment.

Retailers were asked 'what share of customers would you consider as having economies of scale for each jurisdiction?'. Figure 3.9 shows all retailers' views, which varied within and between regions.

Figure 3.9: Retailers indicate share of customers needed to achieve 'economies of scale' in each jurisdiction



Source: AEMC's 2020 retailer survey.

While some retailers responded with the same answer for all jurisdictions, retailers who differentiated their responses between jurisdictions indicated the share of customers considered as having economies of scale are:

- 6-15 per cent in Queensland
- 6-10 per cent in New South Wales
- More than 20 per cent in the Australian Capital Territory
- 6-10 per cent in Victoria
- 16-20 per cent in South Australia
- More than 20 per cent in Tasmania.

Economies of scope

Gas remains the core product to be added with electricity for a business to gain economies of scope. A few retailers noted that they considered being able to retail gas (usually as a dual fuel) is essential to being able to competitively retail electricity in Victoria. This is because of the high penetration of gas networks and appliances in the Victorian small customer market and the desire by customers to have a single retailer for both electricity and gas.

A few retailers have begun to differentiate themselves by focusing on gaining economies of scope. Offering multiple different products was seen as an alternate path to market and an efficient marketing and acquisition tool, rather than the traditional benefit of cost reductions of obtaining economies of scope. These economies of scope may not directly decrease the business's costs of providing energy, but may reduce the cost of customer acquisition and retention. For example, Origin Energy, Sumo Power and Click Energy/Amaysim also offer telecommunication (mobile phone and home internet) products alongside their energy products. Retailers noted that it was difficult to gain cost reductions through economies of scope with these 'non-energy' products due to the misalignment of regulatory and compliance measures. This can be as simple as billing requirements that stop the business being able to have a single bill for all the services that the customer uses.

Many retailers — including AGL, Simply Energy, Energy Locals, ActewAGL, Origin Energy, EnergyAustralia, Red Energy and Powershop — are all offering solar and battery products to residential customers. Some retailers interviewed said the business feels obligated to offer these products to retain specific customers. Other retailers are very focused on this area in light of their future strategy and retail offers. Recognising the future market for electric vehicles, some retailers have developed offers tailored for electric vehicle customers, this is discussed more in Chapter 8.

4 RETAILER BEHAVIOUR AND OUTCOMES

BOX 6: SUMMARY OF FINDINGS

This chapter covers retailer pricing behaviour and outcomes over the past 12 months. In particular:

- changes in the distribution of prices in relation to the price caps on standing offers in South East Queensland, New South Wales, South Australia and Victoria. These price caps were introduced on 1 July 2019.
- changes in pricing products and innovation, including the rise of virtual power plants where retailers offer customers financial incentives to join an aggregate customer base with batteries that can be dispatched from a central control system in a coordinated manner.
- an overview of publicly available information on retailer outcomes and profits.

Pricing behaviour

The Commission considers the analysis in this chapter is preliminary as the DMO and VDO reforms have only been in place for 12 months. Future reviews will have access to data over a longer period and be able to assess if observations made in this year's report are sustained.

Changes in residential offers from 2019 to 2020

- Higher priced standing offers have been removed from the market as required by the DMO and VDO. Similarly, most retailers have removed market offers priced above the DMO and VDO.
- Price dispersion from the highest standing offer to the lowest market offer decreased between 56 per cent and 65 per cent in jurisdictions with the DMO or VDO.
- Average and median offers below the VDO consistently increased across all five distribution areas between five and 10 per cent. Average and median offers below the DMO slightly decreased or increased by no more than four per cent.

Changes in small business offers from 2019 to 2020

- The introduction of a price cap on standing offers has removed the most expensive offers from the market and generally reduced price dispersion, although this decrease in price dispersion was greater in the distribution areas where the VDO was introduced.
- In all distribution areas where the DMO was introduced (except Essential Energy) retailers reduced the price of their lowest offers in 2020. In Victoria, retailers increased the price of their lowest offers in 2020.

Pricing products and innovation

- There has been a trend towards more dynamic offers accessible for those who own or purchase a battery or electric vehicle.

- The prevalence of batteries have increased due to declining costs and the emergence of government subsidies that require the participation in virtual power plants (VPP). VPPs potentially have large benefits for consumers as they facilitate individual access to wider value streams, such as wholesale price arbitrage and network support, and for the system as a whole as it reduces system costs for all.
- The gradual trend observed in previous years of expansion of product add-ons and bundling continued.

Retailer outcomes

- Net retailer margins across the NEM have decreased on average from \$93 to \$66 per customer between 2017-18 to 2018-19.
- Publicly listed retailers, Origin, AGL, EnergyAustralia and Snowy Hydro have all had reduction in profits in 2018-19 compared to 2017-18.

Having assessed the structure of the electricity markets in Chapter 3, this chapter focuses on the conduct and outcomes for retailers. This chapter examines how retailers compete for customers through price and non-price offerings, describes retailer behaviour, and sets out the trends in:

- the components of tariffs, changes in underlying costs, and structure of tariffs
- pricing practices of retailers in the residential and small business markets
- pricing and product innovation.

This chapter also considers retailer performance through retail margin data available through the ACCC's ongoing electricity market monitoring inquiry and retailer's public disclosures.

One of the main themes of the same chapter in the 2019 report was the comparison between standing and market offers, and potential savings available to customers by moving from a standing offer to a market offer. Due to the re-introduction of a regulated default price cap for standing offers in jurisdictions that were previously price-unregulated, the difference between standing offers and market offers will be less of a focus in this year's report. Instead, observations and analysis will be made on changes in retailer pricing behaviour since the introduction of the DMO in South East Queensland, New South Wales, and South Australia, and the VDO in Victoria. The Commission considers this analysis is preliminary as the DMO and VDO reforms have only been in place for 12 months. Future reviews will have access to data over a longer period and be able to assess if observations made in this year's report continue to present.

4.1 Standing offers

The number of customers on standing offers is still a good measure of engagement in the market. All retailers must offer at least one standard retail contract at standing offer prices and these are often the default contract when a consumer does not choose a specific plan. A standing (or standard) offer contract contains terms and conditions including that prices

cannot change more than once every six months and there is a minimum amount of time before customers can be disconnected if they do not pay their bill. Table 4.1 presents the proportion of customers on standing offers by jurisdiction. In all jurisdictions, except Tasmania, the proportion of customers on standing offers continues to decrease. Although there has been a slowdown in the rate of decrease except in Victoria where it has remained at one per cent over 2017-18 and 2018-19.

Table 4.1: Proportion of small customers on standing offers

JURISDICTION	PROPORTION ON STANDING OFFER	CHANGE FROM 2018 TO 2019
South East Queensland	13%	↓2%
New South Wales	13%	↓1%
Australian Capital Territory	43%	↓8%
South Australia	8%	↓1%
Tasmania	98%	↑6%
Victoria*	5%	↓1%

Source: AER retail statistics and the ESC's Victorian Energy Market Report 2018-19. Note: rounded figures may not sum to 100 per cent. Data as of December 2019, except for Victoria which is based on 2018-19.

Note: *Victorian numbers are based on residential customers only

4.2

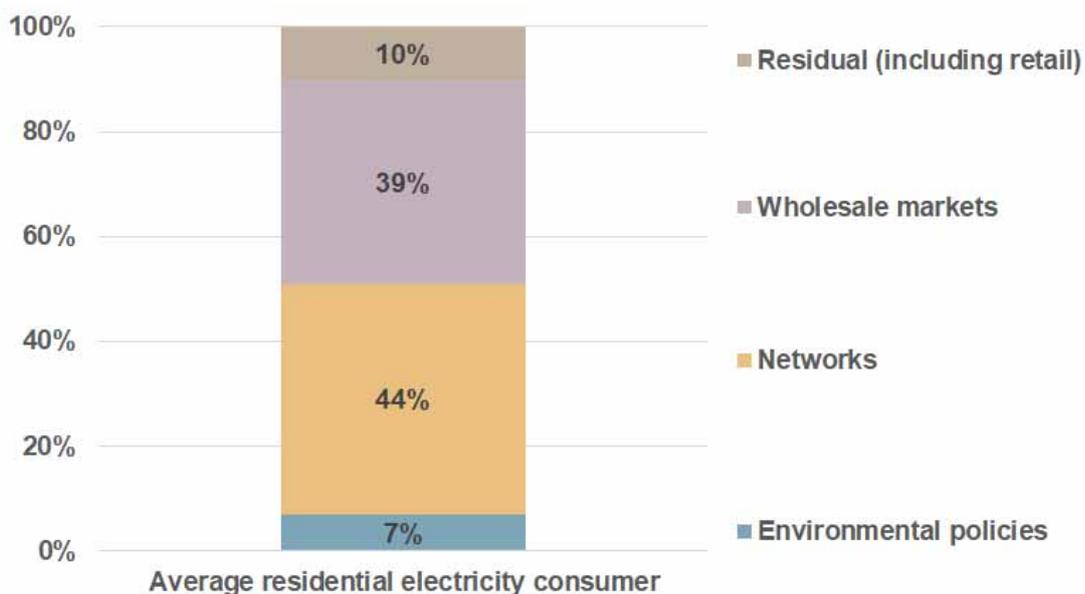
Retail tariff components, underlying costs and tariff structures

4.2.1

Components of residential energy bills

Residential energy offers can be broken down into their components to gain a better understanding of their structure and the effect of retail competition on residential energy bills. A significant proportion of a typical retail bill is determined by upstream factors. Wholesale market, transmission and distribution network costs make up the majority of the final price that customers face. Figure 4.1 presents indicative cost components of residential electricity.

Figure 4.1: Indicative cost components of a residential electricity bill



Source: AEMC 2019 Residential Electricity Price Trends;

Note: The electricity bill is for the NEM but does not include Tasmania in the NEM average.

Figure 4.1 shows that on average across Australia, network (transmission and distribution) and wholesale costs make up around 83 per cent of an electricity residential customer's bill.

- Wholesale costs — A retailer's ability to influence their wholesale market risk and associated costs, and network costs to a lesser degree, influences the retail prices they can offer the market. Increased wholesale spot market costs have led to higher contract prices, which in turn increases costs to retailers, particularly those that are not vertically integrated.
- Network costs — DNSP pricing structures have traditionally taken the form of a fixed and variable component which retailers generally adopt and pass on to customers. Additionally, with the introduction of competition in metering in December 2017, retailers now have the responsibility of choosing the provider of meters and metering services for electricity customers.⁴⁵

⁴⁵ Competition in metering has been implemented in all NEM states besides Victoria which has delayed implementation until 2021. For more information on competition in metering see: www.aemc.gov.au/rule-changes/expanding-competition-in-metering-and-related-serv.

4.2.2 Changes in underlying costs

Trends in underlying costs, that retailers have less control over, can provide insights into why retailers' offers may increase or decrease, irrespective of their business strategy or revenue targets. The biggest underlying cost components are wholesale and network costs:

- As noted in Chapter 3, retailers tend to start hedging in the wholesale spot market as much as two years in advance and finish hedging about three months out.
- Networks costs are regulated and are determined usually every five years by the AER. Changes in network costs are implemented on 1 July each year, or 1 January in Victoria.

Retailers manage the risk and volatility associated with electricity costs to provide customers with greater certainty and simpler offers.

This section provides a summary of underlying cost trends analysis that was first published in the AEMC's 2019 Price Trends report.⁴⁶ The 'market offers' referred to in this section represent the average lowest offer from each retailer in a region, weighted by market share. These market offers should not be compared with the offers presented in section 4.3, but are used to indicate the trend in underlying costs that retailers would likely have considered when developing offers that were advertised in March 2020.⁴⁷

More generally, electricity prices are expected to decrease over the next year, primarily driven by wholesale costs reducing as new capacity enters the system. Some regions will also see a decrease in network costs. The price trends analysis indicates that:

- In South East Queensland, both wholesale and network costs are expected to decrease in 2020-21. This makes up the majority of the downward trend in the market offer from 2019-20 to 2020-21, decreasing from \$1,337 to \$1,166, or 12.8 per cent.
- In New South Wales, wholesale costs are expected to decrease with Network costs decreasing only slightly. There is a downward trend in the market offer from 2019-20 to 2020-21, decreasing from \$1,294 to \$1,230, or five per cent.
- In South Australia, wholesale costs are expected to increase slightly, although network costs are expected to decrease. There is downward trend in the market offer from 2019-20 to 2020-21, decreasing from \$1,884 to \$1,812, or 3.8 per cent.
- In Victoria, wholesale costs are expected to decrease with Network costs remaining steady. There is a downward trend in the market offer from 2019-20 to 2020-21, decreasing from \$1,155 to \$1,080, or 6.5 per cent.
- In the Australian Capital Territory, wholesale costs and the cost of environmental policies are expected to decrease with Network costs increasing. Overall, there is a downward trend in the market offer from 2019-20 to 2020-21, decreasing from \$1,967 to \$1,873, or 4.8 per cent.

Since the AEMC's 2019 Price Trends report was published a number of network projects have been announced, including the:

- Queensland New South Wales Interconnector (QNI) minor upgrade.

⁴⁶ <https://www.aemc.gov.au/market-reviews-advice/residential-electricity-price-trends-2019>

⁴⁷ The retailer offer data presented in this chapter was accessed from Energy Made Easy on 1 March 2020.

- AusNet Services - installation of Rapid Earth Fault Current Limiters - tranche 3.

These projects will not impact on costs until at least 2021-22. The increase in network costs from these investments, in their respective distribution areas, result in a residential bill increasing by less than 0.5 per cent.

Since the COVID-19 pandemic was announced

The above analysis reflects pre-COVID-19 expectations. Price indicators since the COVID-19 pandemic such as wholesale spot market prices are lower than expected. However, for the purpose of the analysis that follows in section 4.3, it is appropriate to consider the price indicators that were known at the time retailers developed their market offers.

4.2.3

Retail tariff structures

There are several tariff structures available to customers on both market and standing offers. Retailers package up the different components of energy bills into a price for their customers. The most common way for retailers to do this is using a two part retail energy tariff, consisting of:

- a fixed daily supply charge that is charged regardless of the amount of energy consumed or time of day
- a variable energy charge that is charged for each unit of energy consumed.

The difference between tariff types typically arises from the way the variable energy charge is designed, to provide a clearer (or blunter) price signal to consumers. Table 4.2 sets out the main types of retail tariff structures used in the energy market today.

Table 4.2: Retail tariff structures

TARIFF TYPE	DESCRIPTION OF TARIFF	HOW AND WHEN THE TARIFF IS USED
Block tariffs	Block tariffs charge different per unit prices for different consumption levels. Block tariffs can be inclining or declining (where the energy charge increases or decreases) from one block to the next block, with a different charge then applying for consumption beyond that level of usage. In its simplest form, this tariff can be a single block, where one price is charged for all electricity consumed.	<ul style="list-style-type: none"> • The most common tariff structure for residential electricity and gas customers. • These tariffs can also vary from summer to winter, known as a seasonal tariff structure. • Most gas tariffs use this structure.
Time-of-use (TOU) tariffs	TOU have up to three separate energy charges that vary by time of	<ul style="list-style-type: none"> • TOU tariffs require customers to have an

TARIFF TYPE	DESCRIPTION OF TARIFF	HOW AND WHEN THE TARIFF IS USED
	<p>day (peak, off-peak, and shoulder). The duration and timing of these periods is determined by the DNSP, although the retailer is not obliged to use these same periods, or even mirror these tariff structures. This tariff type can have multiple blocks (inclining or declining) and can vary by seasons.</p>	<p>interval meter.</p>
Demand tariff	<p>Demand tariffs are an emerging tariff type that has an energy charge, as well as a per-kW 'demand' charge, which is based on a consumer's peak demand (in kW).</p>	<ul style="list-style-type: none"> • Demand tariffs have previously been offered to large consumers, but are increasingly being offered to small customers. Networks have driven the roll out of demand tariffs as a form of cost reflective network pricing. • Demand tariffs require customers to have an interval meter.
Fixed payment tariffs	<p>These tariffs are where the customer pays a predetermined fixed amount each month up to a usage cap.</p>	<ul style="list-style-type: none"> • These are more common amongst businesses. Some retailers, like Origin Energy, are offering these to residential customers.
Subscription tariffs	<p>These tariffs are where customers pay a (yearly or monthly) subscription fee to their retailer. As a result of this constant income the retailer may be able to offer lower fixed and variable rates than if using another tariff structure.</p>	<ul style="list-style-type: none"> • These tariffs may allow a retailer to have a separate amount that transparently indicates to the customer the retailer's gross margin (the amount required to operate their business as well as their profit). • This tariff has been noted by some retailers as a reaction to gain customer's trust again due to recent low consumer confidence in the

TARIFF TYPE	DESCRIPTION OF TARIFF	HOW AND WHEN THE TARIFF IS USED
		retail energy market.
Wholesale market spot price pass through tariffs	These tariffs are where the 30-minute wholesale price is passed through to the end customer. The retailer also typically directly passes through the other components of a residential bill and adds a separate, transparent subscription fee that contains their gross margin (the amount required to operate their business as well as their profit).	<ul style="list-style-type: none"> Spot price pass-through tariffs require customers to have an interval meter. These prices may allow customers to dynamically interact with the wholesale market. Customers with household battery storage tend to be best suited to these tariffs as they can react (by self supplying with their own battery) to high price periods in the wholesale market.

All of the tariffs described in Table 4.2 can be paired with a controlled load and/or a feed-in tariff.⁴⁸

- A controlled load is the electricity used by appliances, such as electric hot water systems, which are controlled by a third party (typically the DNSP) and are metered separately. A controlled load tariff is typically a low rate tariff, as these appliances operate during the hours of low demand.
- 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.

Comparing different tariff structures can be complicated for consumers. This is because, to make an optimal decision, customers need to understand their consumption level and profile. This may be compounded by the multitude of offers available and makes it more difficult for consumers to comprehend and compare tariffs. However, the AER's comparator website Energy Made Easy and Victoria's Victorian Energy Compare simplifies the comparison for consumers by providing the lowest priced offers available to a customer based on information they input to the website.⁴⁹ On 16 April 2020 the Energy Made Easy website was updated to include easier and simpler access for consumers, improved functionality and a more personalised approach by allowing consumers to easily access and use their own metered data. The New South Wales Government also has its own switching service, Energy Switch,

⁴⁸ Controlled load can be referred to using different names such as dedicated circuit, off peak, Tariff 41 in Tasmania or Tariff 31 or Tariff 33 in Queensland.

⁴⁹ The AER's Energy Made Easy can be accessed at www.energymadeeasy.gov.au, Victoria's Victorian Energy Compare can be accessed at compare.energy.vic.gov.au.

which automatically provides a comparison of offers based upon an e-bill uploaded by consumers.⁵⁰

4.3 Pricing behaviour

This section provides an overview of the methodology for calculating, and outlines the changes in, annual residential and small business standing and market offers for a representative consumer across the NEM-based jurisdictions from 2019 to 2020. These changes in pricing behaviour of retailers in relation to electricity offers can provide insight into how the market has developed over the past year, and in particular how retailers' have responded to the re-introduction of a regulated price cap for standing offers. The Commission considers this analysis is preliminary because the DMO and VDO reforms have only been in place for 12 months. Future reviews will have access to data over a longer period of time and be able to assess if observations made in this year's report are sustained.

Box 7 is a summary of the advice the AEMC provided to the COAG Energy Council in 2018 on the potential impacts of the introduction of a default offer.

BOX 7: AEMC ADVICE TO THE COAG ENERGY COUNCIL IN 2018

In December 2018, the Commission provided advice to COAG Energy council on the introduction of a default offer.* The Commission's analysis indicated that the introduction of a default offer, in the short term, may result in the following:

- a decrease in price dispersion in the market from a:
 - reduction in the price of standing offers
 - reduction in the price of high priced market offers
 - price increases in the lower priced market offers available to consumers
- consumers on standing offers and market offers that were above the default offer would be better off and consumers on lower priced market offers would be worse off.
- the decrease in price dispersion would reduce the incentive for consumers to engage in the market and could lead to decreased switching.

The advice also noted the likely longer term structural effects of the introduction of a default offer:

- increased risk to retailers driving higher financing and overall costs
- lower levels of innovation leading to a smaller range of products and services
- higher barriers to entry and changes to consumer behaviour resulting in decreased competition.

Note: *The Commission's full advice can be found at <https://www.aemc.gov.au/market-reviews-advice/advice-coag-energy-council-default-offer>.

⁵⁰ The New South Wales Government's Energy Switch can be accessed at energyswitch.service.nsw.gov.au.

The AER, the ACCC, and an Independent panel convened by the Victorian government, have each published reviews on preliminary observations on the impact of price regulation from the DMO and VDO. Box 8 presents a summary of these preliminary findings.

BOX 8: OTHER REVIEWS ON THE IMPACT OF PRICE REGULATION

In September 2019 the AER noted:

- From 1 July 2019, the DMO and VDO resulted in a significant reduction in median electricity standing offer prices in the jurisdictions they apply.
- Generally, median electricity market offers remained steady from June 2019 to September 2019, and the price range of offers either remained steady or continued to contract.
- The gap between electricity standing offer and market offer prices narrowed, though standing offers remained higher than market offers in most areas.

In August and November the ACCC noted the "spread" of prices for market offers had reduced.* This reduction in spread was due to a decrease in the annual bill amount for the most expensive market offers available and, in some instances, an increase in the cheapest market offer available.

In November 2019 the Independent panel convened by the Victorian government noted:

- active consumers are still able to benefit from a (narrower) range of lower priced offers
- there are early signs that, relative to the Default Market Offer, the VDO may be exerting greater downward pressure on prices paid by all consumers, not just those on standing offers.

Source: AER https://www.aer.gov.au/system/files/AER%20Annual%20Retail%20Markets%20Report%202018-19_0.pdf,

Source: ACCC <https://www.accc.gov.au/regulated-infrastructure/energy/electricity-market-monitoring-2018-2025/november-2019-report>,

Source: Independent panel https://www.energy.vic.gov.au/_data/assets/pdf_file/0025/442546/VDO-Expert-Panel-Report-on-initial-market-outcomes-since-the-introduction-of-the-VDO.pdf

Note: *Price spread refers to the difference between the maximum and minimum annual bill amount offered by retailers.

4.3.1

Bill outcome methodology

The analysis in this chapter is based on publicly available data from Energy Made Easy and Victorian Energy Compare. The analysis uses the DNSP of the capital city in each region as a proxy for changes in bill outcomes for that region. All discounts are assumed to be realised for market offers and all estimated annual bills are calculated excluding GST.

Bills have been calculated based on the 'representative customer' on a block tariff in each jurisdiction. Residential electricity consumption levels for each jurisdiction outside of Tasmania are based on the AER's Draft Determination on the DMO for 2020-21 and the ESC's Final VDO 2020. Consumption for Tasmania and the Australian Capital Territory is based on the AEMC's 2019 Residential Electricity Price Trends.

Table 4.3: Representative residential consumer electricity consumption

JURISDICTION	DISTRIBUTION ZONE	RESIDENTIAL ELECTRICITY CONSUMPTION (KWH)
New South Wales	Ausgrid	3,800
	Endeavour Energy	4,900
	Essential Energy	4,600
Australian Capital Territory	Evoenergy	7,151
South East Queensland*	Energex	6,300
South Australia	SA Power Networks	4,000
Tasmania**	TasNetworks	7,908
Victoria	All distribution networks	4,000

Source: Based on AER's Draft DMO advice and the ESC's VDO advice

Note: *Energex includes a controlled load tariff of 1,900 kWh. **Consumption for Tasmania is based on AEMC — Residential Electricity Price Trends 2019 and includes 3,559 kWh on T31 (light and power) and 4,349 kWh on T41 (heating and hot water).

The Commission notes that the bill comparison in this chapter is for a representative consumer without solar PV. It should also be noted that all annual bill calculations in this section are based only on flat offers drawn from Energy Made Easy and Victoria Energy Compare and therefore exclude non-flat (time of use, demand based, etc.) retail tariff structures and restricted offers. Therefore, the 'cheapest' offer presented for a particular network region may not be the cheapest offer for a different consumption level or another retail tariff structure.

4.3.2

Distribution of residential offers

This section presents the distribution of annual bills for representative distribution zones.⁵¹ Specifically, this section looks at the dispersion of residential offers in 2020 compared with 2019 in relation to the DMO in South East Queensland, New South Wales and South Australia, and the VDO in Victoria.⁵²

Analysing the distribution of offers below the DMO and VDO before and after they were implemented provides insight into how retailers are responding to this reform. The exception to this is the Australian Capital Territory, where there has been a long-standing regulated standing offer price cap for ActewAGL.⁵³ For context, the bill offers for 2020 were collected on 1 March 2020, prior to the COVID-19 pandemic being announced in Australia.

The main conclusions from this analysis are that from 2019 to 2020:

51 The distribution network regions that represent the capital city of the state/territory, excluding Tasmania, have been used for this section of the report as a proxy for each jurisdiction. The distribution for the other distribution zones in the NEM are available on the microsite. The distribution of offers for Tasmania is not analysed in this section due to the small number of offers available.

52 The 2019-20 DMO and the 2020 VDO.

53 This regulated price is set by the Independent Competition and Regulatory Commission, usually every three or four years.

- Higher priced standing offers have been removed from the market as required by the DMO and VDO. Similarly, most retailers have removed market offers priced above the DMO and VDO.
- Price dispersion from the highest standing offer to the lowest market offer decreased between 56 per cent and 65 per cent in jurisdictions with the DMO or VDO. This may have reduced the incentive for consumers to engage in the market. This may be a factor that has contributed to the reduction in switching across the jurisdictions where the DMO and VDO have been introduced (see Chapter 5).
- Average and median offers below the VDO consistently increased across all five distribution areas between five and 10 per cent. Average and median offers below the DMO either slightly decreased, or increased by no more than four per cent.
- As noted in section 4.2.2, underlying costs in all jurisdictions are forecast to decrease over the next 12 months, however a similar downward trend is not yet observable in retailers' lower priced market offers. It remains to be seen how retailers will respond to these underlying cost reductions. They have to determine their pricing in a complex environment. The new DMO and VDO come into effect on 1 July 2020 and 1 January 2021 respectively, the prohibiting electricity market misconduct legislation took effect on 10 June 2020, and retailers are also now having to deal with the financial impacts of COVID-19.
- The change in the number of offers varied between distribution areas. In the Energex and SA Power Networks' distribution areas, the number of offers have decreased by 53 percent and 17 per cent, respectively. The number of offers in Ausgrid and CitiPower's distribution areas have marginally increased.

As noted earlier in the chapter the Commission considers it is too early to draw firm conclusions about the long term effects of the DMO and VDO, and notes the below analysis as preliminary.

Table 4.4 shows some key statistics for each of the network distribution areas analysed in this section.

Table 4.4: Key statistics for network distribution areas

NETWORK DISTRIBUTION AREA	ACTIVE RETAILERS	NUMBER OF RESIDENTIAL CUSTOMERS
Energex (South East Queensland)	22	1,420,264
Ausgrid (New South Wales)	31	1,581,984
SA Power Networks (South Australia)	18	783,947
Evoenergy (The Australian Capital Territory)	9	181,765
CitiPower (Victoria)	24	300,368

Source: Active retailers: AEMC, see Chapter 3. Number of residential customers: AER and ESCV data.

South East Queensland - Energex's distribution area

Analysis

Table 4.5 presents observations from Figure 4.2. In Energex's distribution area more than half of the offers have been removed, which were the highest priced offers available, although there are still two market offers priced above the DMO. This has reduced price dispersion from the highest standing offer to the lowest market offer by 63 per cent. The lower priced offers, below the DMO, have remained largely unchanged from 2019 to 2020, with a minor decrease in the average priced offer.

Network and wholesale costs have decreased over the last 12 months and are forecast to further decrease over the next 12 months.⁵⁴ The Commission notes that this would normally give rise to an expectation of the lower priced market offers decreasing in line with these reduced costs. However, because the more profitable market offers are no longer available in the market due to reductions in line with the DMO, retailers have less incentive and financial ability to offer lower priced market offers.

The introduction of the DMO in South East Queensland has reduced the price range of offers. This may have reduced the incentive for consumers to engage in the market to the level they otherwise might have. The reduced incentive for consumers to engage in the market may be a factor that has contributed to the decrease in switching observed in South East Queensland, see Chapter 5.

Table 4.5: Observations for the distribution of offers for Energex's distribution area.

	2019	2020	CHANGE FROM 2019 TO 2020
Number of offers	164	77	Decreased by 87, or -53%
Highest offer	\$2,246	\$2,045	Decreased by \$202, or -9%
Lowest offer	\$1,462	\$1,463	Steady, increased by \$1, or 0%
Range of offers	\$785	\$582	Decreased by \$203, or -26%*
DMO**		\$1,752	
Offers below the DMO	75	74	Decreased one, or -1%
Median offer below the DMO	\$1,635	\$1,584	Decreased \$51, or -3%

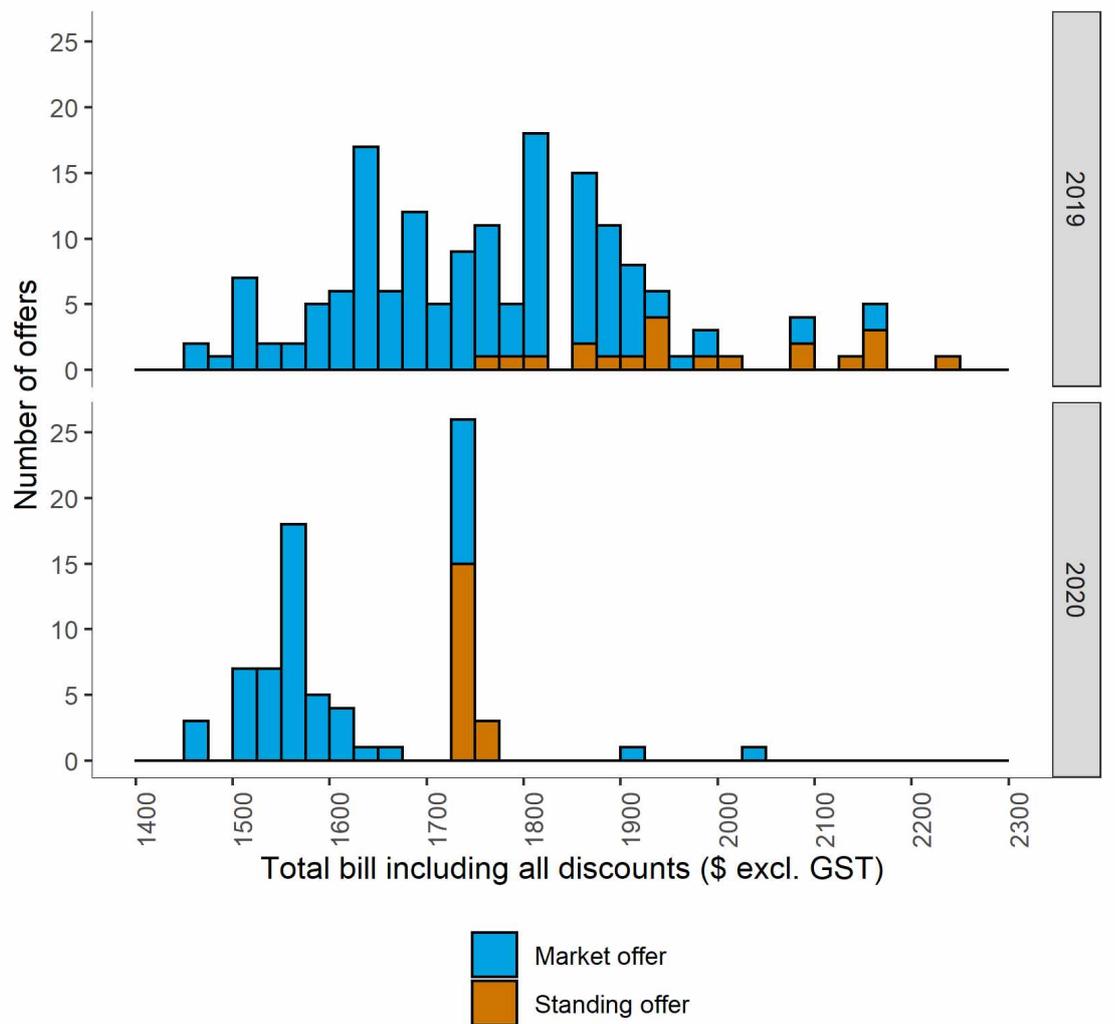
⁵⁴ <https://www.aemc.gov.au/market-reviews-advice/residential-electricity-price-trends-2019>

	2019	2020	CHANGE FROM 2019 TO 2020
Average offer below the DMO	\$1,637	\$1,627	Steady, decreased \$10, or 0%
Lowest offer below the DMO	\$1,462	\$1,463	Steady, increased \$1, or 0%
Range of offers below the DMO	\$290	\$289	Steady, decreased \$1, or 0%

Source: Energy made easy, AEMC analysis.

Note: *This decrease in price dispersion uses the highest offer (i.e. a market offer) in 2020. The 63% decrease in price dispersion mentioned in the text above uses the highest standing offer in 2020. **The DMO for the Energex distribution area includes a controlled component of 1,900 kWh p.a.

Figure 4.2: Distribution of representative residential bill offers by offer type - Energex's distribution area



Source: Energy Made Easy (accessed 1 March 2019 and 1 March 2020), AEMC analysis.

New South Wales - Ausgrid's distribution area

Analysis

Table 4.6 shows observations from Figure 4.3. In Ausgrid's distribution area the highest priced offers have been removed, more than half of which were standing offers. This has reduced price dispersion from the highest standing offer to the lowest market offer by 62 per cent. The lower priced offers, below the DMO, have remained largely unchanged from 2019 to 2020, with an increase of one per cent in both the average and median priced offers.

Forecasts of underlying costs are decreasing over the next 12 months.⁵⁵ The Commission notes that this would normally give rise to an expectation of the lower priced market offers decreasing in line with these reduced costs. However, because the more profitable market offers are no longer available in the market due to reductions in line with the DMO, retailers have less incentive and financial ability to offer lower priced market offers.

The introduction of the DMO in Ausgrid's distribution area has reduced the price range of offers from 2019 to 2020. This may have reduced the incentive for consumers to engage in the market to the level they otherwise might have. The reduced incentive for consumers to engage in the market may be a factor that has contributed to the decrease in switching observed in New South Wales, see Chapter 5.

These observations and analysis are generally consistent for the Endeavour and Essential Energy distribution areas in New South Wales, and can be found on the microsite.

Table 4.6: Observations for the distribution of offers for Ausgrid's distribution area.

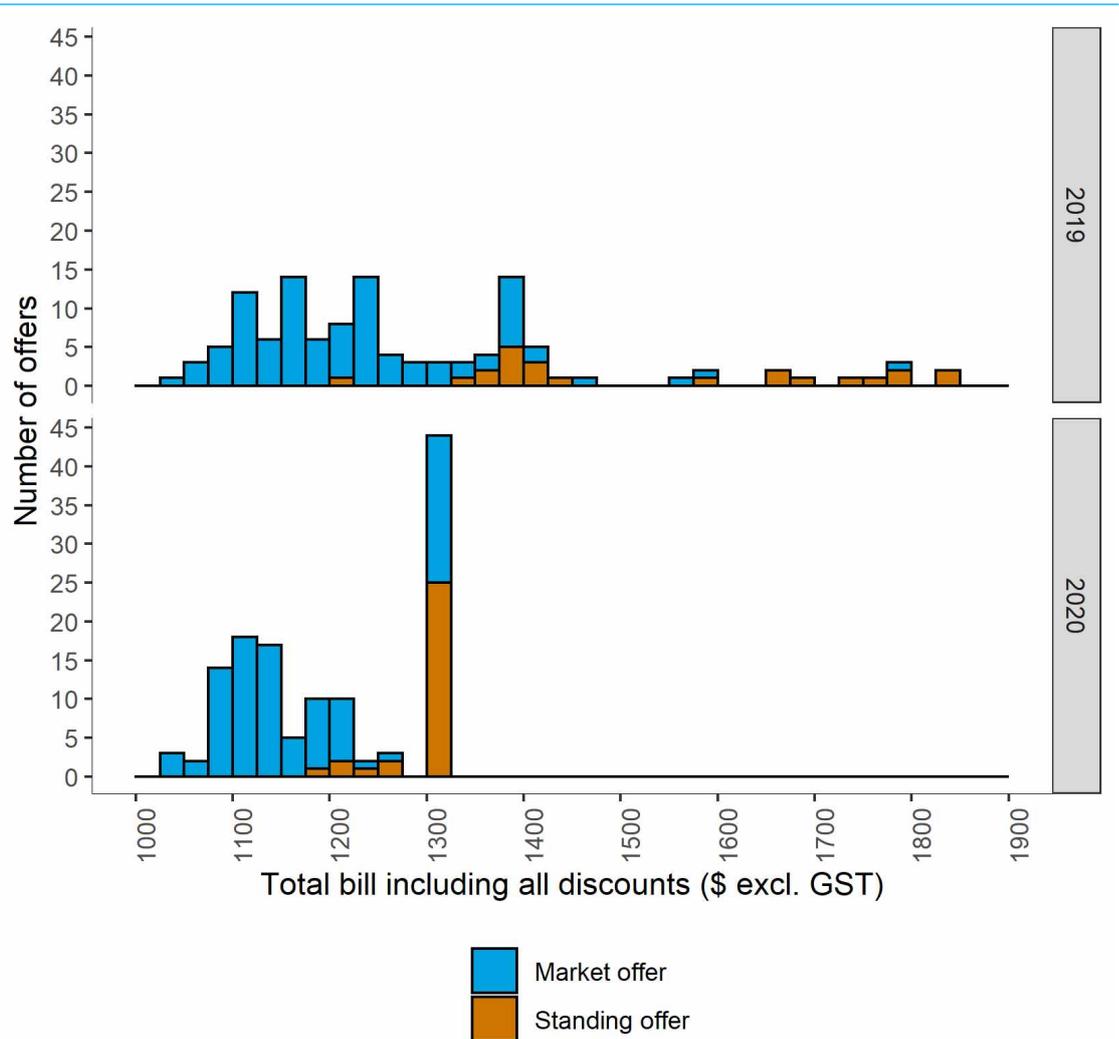
	2019	2020	CHANGE FROM 2019 TO 2020
Number of offers	120	128	Increased by 8, or 7%
Highest offer	\$1,833	\$1,311	Decreased by \$521, or -28%
Lowest offer	\$1,035	\$1,032	Steady, decreased by \$3, or 0%
Range of offers	\$798	\$279	Decreased by \$519, or -65%
DMO		\$1,334	
Offers below the DMO	80	128	Increased by 48, or 60%
Median offer below the DMO	\$1,170	\$1,183	Increased \$13, or 1%
Average offer below the DMO	\$1,183	\$1,199	Increased \$17, or 1%
Lowest offer below the DMO	\$1,035	\$1,032	Steady, decreased \$3, or 0%
Range of offers below the DMO	\$299	\$279*	Decreased \$20, or -7%

Source: Energy made easy, AEMC analysis.

Note: *As the highest offer in 2020 is \$23 below the DMO, the DMO is not used as the maximum price when calculating the range.

⁵⁵ <https://www.aemc.gov.au/market-reviews-advice/residential-electricity-price-trends-2019>

Figure 4.3: Distribution of representative residential bill offers by offer type - Ausgrid's distribution area



Source: Energy Made Easy (accessed 1 March 2019 and 1 March 2020), AEMC analysis.

South Australia - SA Power Networks' distribution area

Analysis

Table 4.7 presents observations from Figure 4.4. In SA Power Networks' distribution area the highest priced offers have been removed, more than half of which were standing offers. This has reduced price dispersion from the highest standing offer to the lowest market offer by 68 per cent. The lower priced offers, below the DMO, have increased from 2019 to 2020 with the average priced offer increasing by three per cent. Underlying costs (e.g. network and

wholesale costs) are forecast to decrease in 2021-22.⁵⁶ The Commission notes that this would normally give rise to an expectation of the lower priced market offers decreasing in line with these reduced costs. However, the more profitable market offers are no longer available in the market due to reductions in line with the DMO, retailers have less incentive and financial ability to offer lower priced market offers.

The introduction of the DMO in South Australia has reduced the price range of offers. This may have reduced the incentive for consumers to engage in the market to the level they otherwise might have. The reduced incentive for consumers to engage in the market may be a factor that has contributed to the decrease in switching observed in South Australia, see Chapter 5.

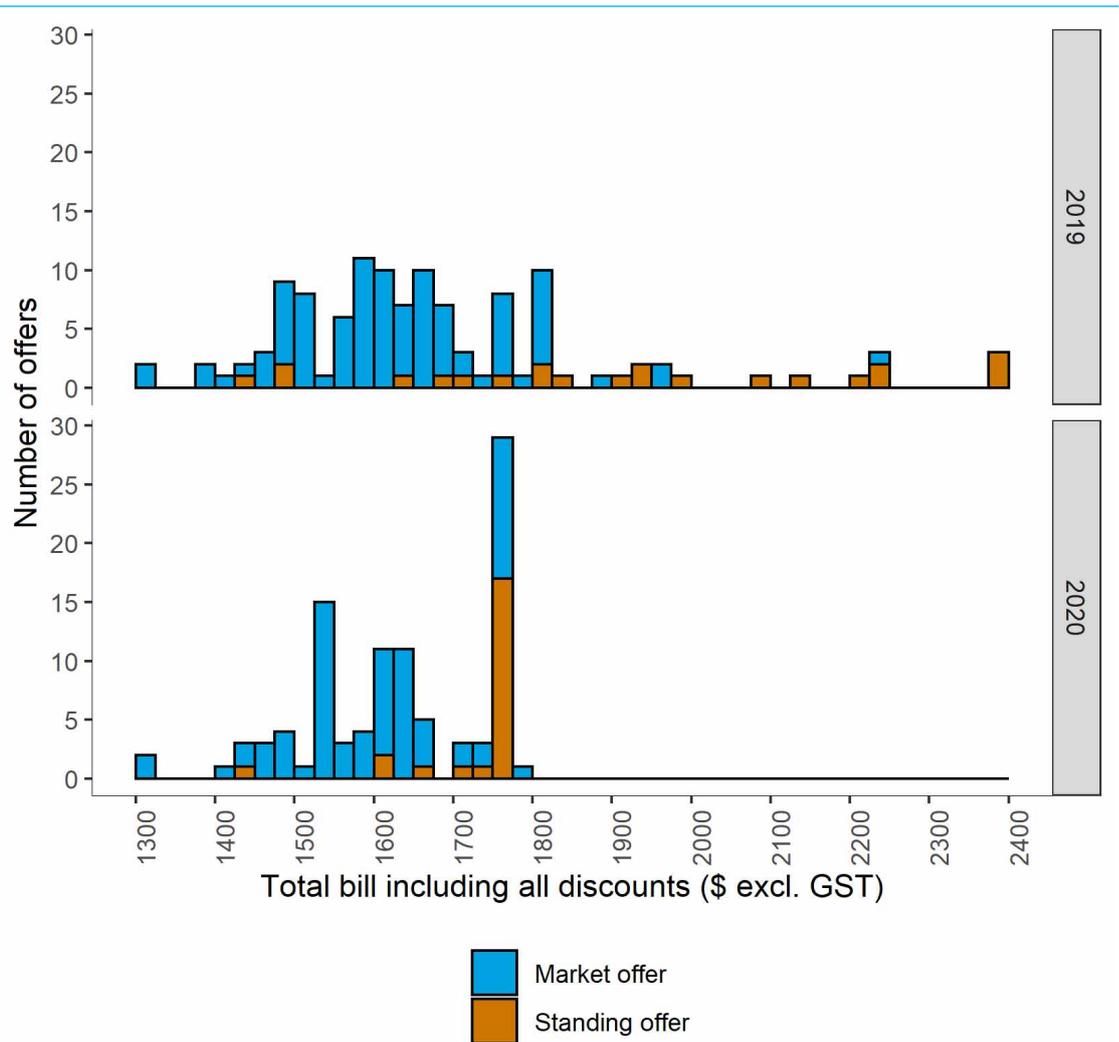
Table 4.7: Observations for the distribution of offers for SA Power Networks' distribution area.

	2019	2020	CHANGE FROM 2019 TO 2020
Number of offers	119	99	Decreased by 20, or -17%
Highest offer	\$2,384	\$1,794	Decreased by \$589, or -25%
Lowest offer	\$1,320	\$1,322	Steady, increased by \$2, or 0%
Range of offers	\$1,064	\$472	Decreased by \$592, or -56%
DMO		\$1,765	
Offers below the DMO	91	98	Increased by 7, or 8%
Median offer below the DMO	\$1,605	\$1,627	Increased \$22, or 1%
Average offer below the DMO	\$1,590	\$1,632	Increased \$42, or 3%
Lowest offer below the DMO	\$1,320	\$1,322	Steady, increased \$2, or 0%
Range of offers below the DMO	\$444	\$442	Steady, decreased \$2, or -1%

Source: Energy made easy, AEMC analysis.

⁵⁶ <https://www.aemc.gov.au/market-reviews-advice/residential-electricity-price-trends-2019>

Figure 4.4: Distribution of representative residential bill offers by offer type - SA Power Networks's distribution area



Source: Energy Made Easy (accessed 1 March 2019 and 1 March 2020), AEMC analysis.

Australian Capital Territory - Evoenergy's distribution area

Analysis

Table 4.8 shows observations from Figure 4.5. The number of offers available in 2020 have decreased and the lowest offer has remained about the same from 2019 to 2020. The highest, average and median offers have all increased in 2020. Overall, price offers are increasing in 2020, although the ICRC's draft decision for the regulated standing offer price

cap for ActewAGL is to decrease by more than \$100 in 2020-21.⁵⁷ Underlying costs passed through by retailers are forecast to trend downwards over the next 12 months.⁵⁸ Price dispersion has increased by 32 per cent, and while prices are generally higher, there are still lower priced offers available.

The incentive for consumers to engage in the market has increased and this is demonstrated with a further eight per cent decrease in the number of small customer on standing offers in the Australian Capital Territory from 2018 to 2019, see section 4.1. This has likely contributed to the increase in switching observed in the Australian Capitol Territory, see Chapter 5.

Table 4.8: Observations for the distribution of offers for Evoenergy's distribution area.

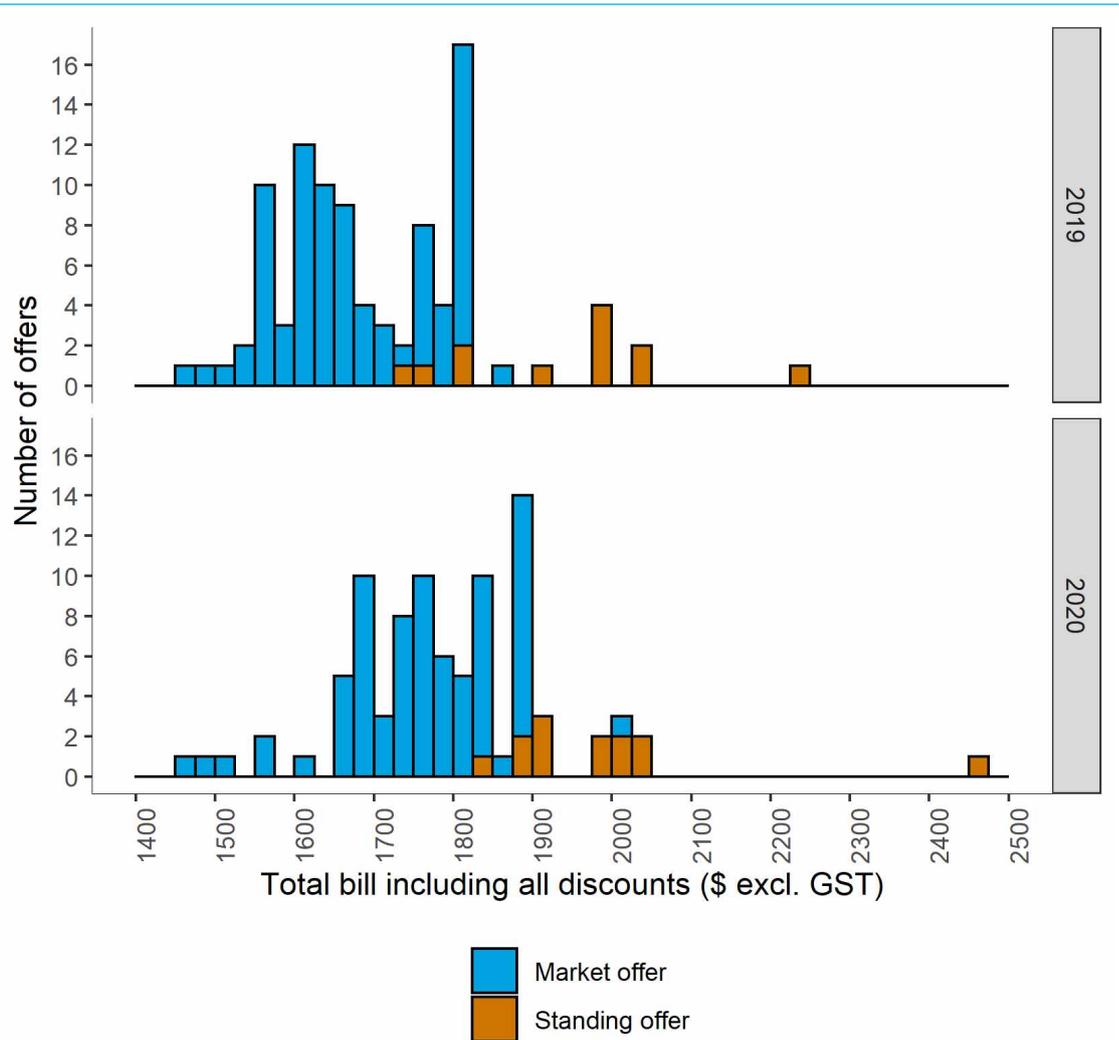
	2019	2020	CHANGE FROM 2019 TO 2020
Number of offers	96	89	Decreased by 7, or -7%
Highest offer	\$2,227	\$2,470	Increased by \$243, or 11%
Lowest offer	\$1,472	\$1,471	Steady, decreased by \$1, or 0%
Median offer	\$1,670	\$1,782	Increased \$113, or 7%
Average offer	\$1,708	\$1,797	Increased \$89, or 5%
Range of offers	\$755	\$1000	Increased by \$244, or 32%

Source: Energy made easy, AEMC analysis.

⁵⁷ https://www.icrc.act.gov.au/_data/assets/pdf_file/0007/1474756/Electricity-Draft-report_pdf.pdf

⁵⁸ <https://www.aemc.gov.au/market-reviews-advice/residential-electricity-price-trends-2019>

Figure 4.5: Distribution of representative residential bill offers by offer type - Evoenergy's distribution area



Source: Energy Made Easy (accessed 1 March 2019 and 1 March 2020), AEMC analysis.

Victoria - CitiPower's distribution area

Analysis

Table 4.9 presents observations for Figure 4.6. In CitiPower's distribution area the highest priced offers that were available in 2019 have been removed, with the majority of these being standing offers. This has reduced price dispersion from the highest standing offer to

the lowest market offer by 62 per cent.⁵⁹ While the lowest priced offer has decreased, generally lower priced offers below the VDO have increased, with the median and average priced offers increasing by seven and five per cent, respectively. Underlying costs (e.g. network and wholesale costs) are forecast to decrease in 2021-22.⁶⁰ The Commission notes that this would normally give rise to an expectation of the lower priced market offers decreasing in line with these reduced costs. However, the more profitable market offers are no longer available in the market due to reductions in line with the DMO, retailers have less incentive and financial ability to offer lower priced market offers.

The introduction of the VDO in CitiPower's distribution area has reduced the price range of offers. Generally, lower priced offers have increased, and this may have reduced the incentive for consumers to engage in the market to the level they otherwise might have. This may be a factor that has contributed to the decrease in switching observed in Victoria, see Chapter 5.

These observations and analysis are consistent for the other four distribution areas in Victoria (AusNet Services, Jemena, Powercor and United Energy) and can be found on the microsite.

Table 4.9: Observations for the distribution of offers for CitiPower's distribution area.

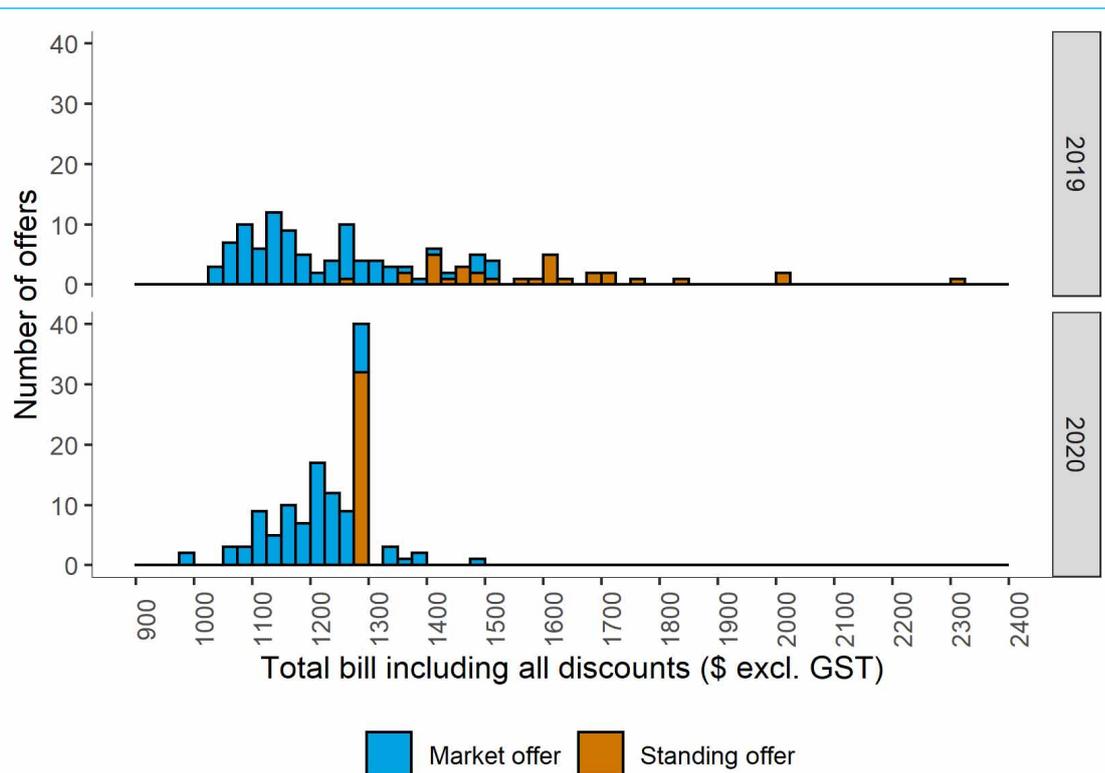
	2019	2020	CHANGE FROM 2019 TO 2020
Number of offers	120	124	Increased by 4, or 3%
Highest offer	\$2,300	\$1,479	Decreased by \$821, or -36%
Lowest offer	\$1,038	\$998	Decreased by \$40, or by -4%
Range of offers	\$1,262	\$481	Decreased by \$781, or -62%
VDO		\$1,291	
Offers below the VDO	72	116	Increased by 44, or 61%
Median offer below the VDO	\$1,143	\$1,226	Increased \$83, or 7%
Average offer below the VDO	\$1,155	\$1,216	Increased \$60, or 5%
Lowest offer below the VDO	\$1,038	\$998	Decreased by \$40, or -4%
Range of offers below the VDO	\$253	\$293	Increased by \$40, or 16%

Source: Energy made easy, AEMC analysis.

⁵⁹ Price dispersion is decreased by 41% if the three highest standing offers in 2019 are ignored.

⁶⁰ <https://www.aemc.gov.au/market-reviews-advice/residential-electricity-price-trends-2019>

Figure 4.6: Distribution of representative residential bill offers by retailer type - CitiPower's distribution area



Source: Victorian Energy Compare (accessed 1 March 2019 and 1 March 2020), AEMC analysis.

4.3.3

Distribution of small business offers

The methodology for calculating the bill outcomes for small business consumers is the same for residential consumers. The only difference was the small business electricity consumption level, which was set at 20,000 kWh across all regions. This is consistent with the assumed consumption levels in the AER's DMO draft determination for 2020-21.⁶¹

Similar to the residential pricing section, this section looks at the dispersion of residential offers in 2020 compared with 2019 in relation to the DMO and VDO. For this section, Ausgrid and CitiPower's distribution areas are used to analyse how retailers have responded to the DMO and VDO for small business offers.⁶² Analysis of other distribution areas can be found on the microsite.

Analysing the distribution of offers below the DMO and VDO before and after they were implemented provides insight into how retailers have responded to this reform. The exception

⁶¹ <https://www.aer.gov.au/system/files/AER%20-%20Default%20Market%20Offer%20-%20Price%20determination%202020-21%20Draft%20Determination%20-%2010%20February%202020.pdf>

⁶² The 2019-20 DMO and the 2020 VDO.

to this is the Australian Capital Territory, where there has been a long-standing regulated standing offer price cap for ActewAGL.⁶³ For context, the bill offers for 2020 were collected on 1 March 2020, prior to the COVID-19 pandemic being announced in Australia.

The main conclusions from this section are:

- The introduction of a price cap on standing offers has removed the most expensive offers from the market and generally reduced price dispersion, although this decrease in price dispersion was greater in the distribution areas where the VDO was introduced.
- In all distribution areas where the DMO was introduced (except Essential Energy) retailers reduced the price of their lowest offers in 2020. In Victoria, retailers increased the price of their lowest offers in 2020.
- In Victoria retailers increased their lowest priced offers in 2020. This may be an effort to retain revenues as higher priced offers have been removed from the market.

Ausgrid's distribution area

Table 4.10 shows observations for Figure 4.7. In Ausgrid's distribution area the highest priced offers have been removed, and the number of offers available have decreased by 24 per cent. While price dispersion decreased by 21 per cent, this was much less than any of the residential markets. The lowest offer decreased by 25 per cent and there are 15 offers in 2020 below the lowest offer from 2019. The median and average of the lower priced offers, below the DMO, have remained steady and decreasing by one per cent, respectively, from 2019 to 2020. Forecasts of underlying costs are decreasing over the next 12 months. While it is too early to draw firm conclusions, it does not appear that the DMO has had the same impact on offers for small business customers in Ausgrid's distribution area as it may have had on residential customer offers. There are more lower-priced offers available in 2020 and a relatively small decrease in price dispersion.

These observations and analysis are generally consistent for the other distributions areas where the DMO was implemented (Energen, Essential Energy, Endeavour, SA Power Networks) and can be found on the microsite.

Table 4.10: Observations for the distribution of offers for Ausgrid's distribution area.

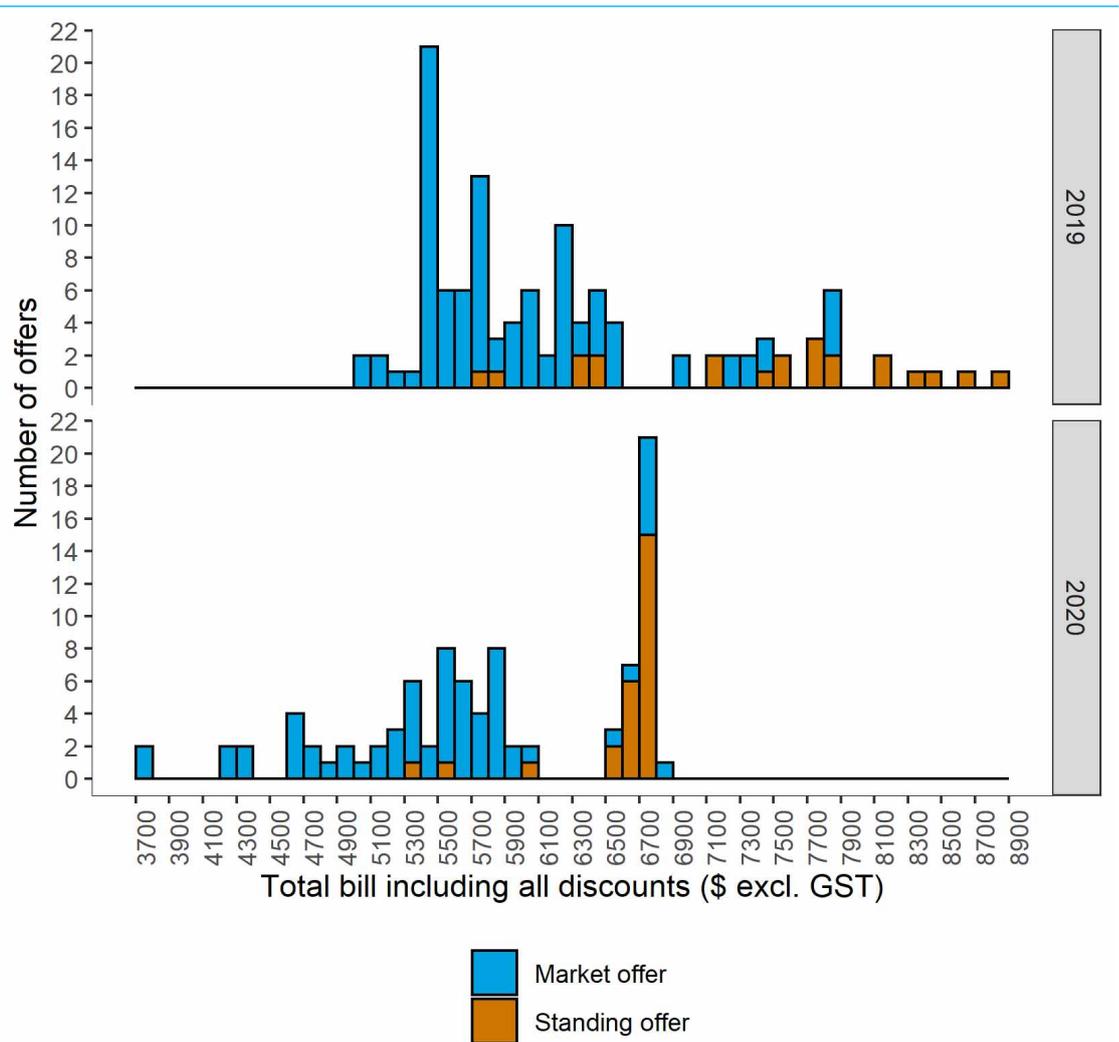
	2019	2020	CHANGE FROM 2019 TO 2020
Number of offers	119	91	Decreased by 28, or -24%
Highest offer	\$8,898	\$6,830	Decreased by \$2,068, or -23%
Lowest offer	\$5,000	\$3,761	Decreased by \$1,240, or -25%
range of offers	\$3,898	\$3,070	Decreased by \$828, or -

⁶³ This regulated price is set by the Independent Competition and Regulatory Commission, usually every three or four years.

	2019	2020	CHANGE FROM 2019 TO 2020
			21%
DMO		\$6,701	
Offers below the DMO	91	88	Decreased by 3, or -3%
Median offer below the DMO	\$5,722	\$5,729	Steady, increased \$7, or 0%
Average offer below the DMO	\$5,830	\$5,775	Decreased \$56, or -1%
Lowest offer below the DMO	\$5,000	\$3,761	Decreased \$1,240, or -25%
Range of offers below the DMO	\$1,701	\$2,940	Increased \$1,240, or 73%

Source: Energy made easy, AEMC analysis.

Figure 4.7: Distribution of representative small business bill offers by offer type - Ausgrid's distribution area



Source: Energy Made Easy (accessed 1 March 2019 and 1 March 2020), AEMC analysis.

CitiPower's distribution area

Table 4.11 presents observations in Figure 4.8. In CitiPower's distribution area the highest priced standing offers have been removed. Unlike in other areas and for residential customers 11 market offers still remain priced above the VDO in 2020.

The number of offers available has increased by about 50 per cent, however price dispersion has decreased by 55 per cent. The lowest priced offer has increased by 29 per cent, and the median and average priced offers, below the VDO, have each increased by 13%. Underlying

costs (e.g. network and wholesale costs) are forecast to decrease in 2021-22.⁶⁴ The Commission notes that this would normally give rise to an expectation of the lower priced market offers decreasing in line with these reduced costs. However, because price caps remove higher priced offers in the market due to reductions in line with the VDO, retailers have less incentive and financial ability to offer lower priced market offers.

The introduction of the VDO in CitiPower's distribution area has reduced the price range of offers and this may have led to retailers increasing the price of their remaining offers. This may have reduced the incentive for consumers to engage in the market than there otherwise might have been.

These observations and analysis are consistent for the other four distribution areas in Victoria (AusNet Services, Jemena, Powercor and United Energy) and can be found on the microsite.

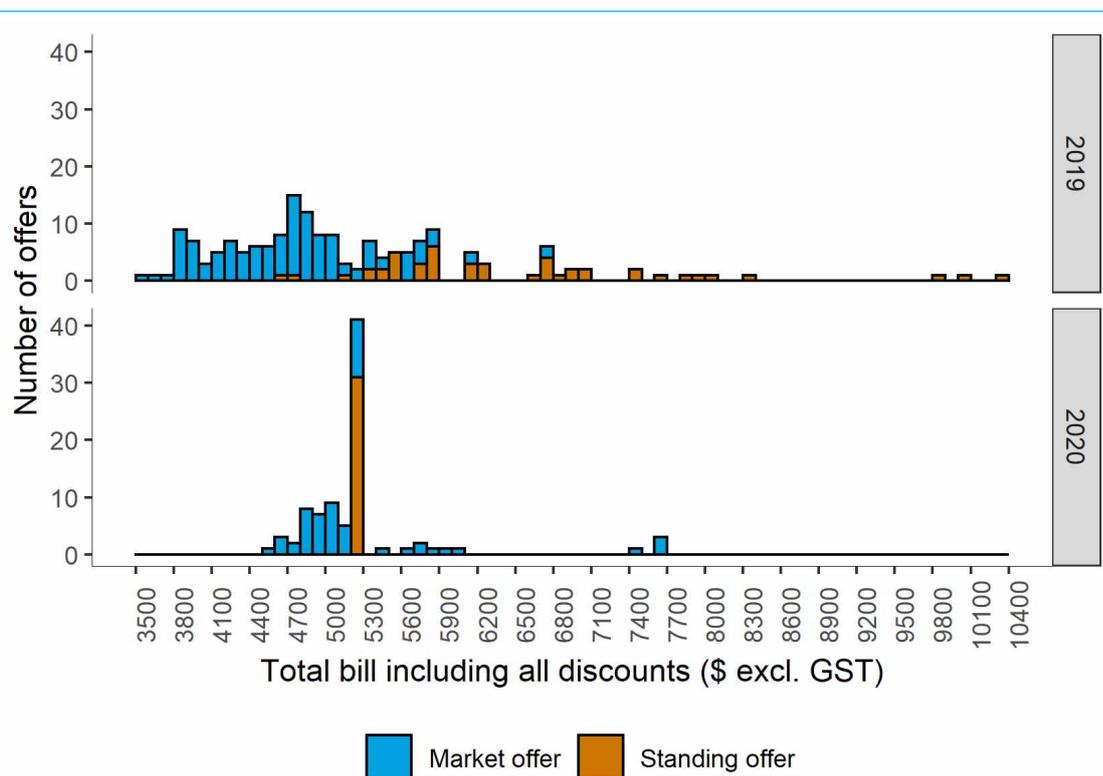
Table 4.11: Observations for the distribution of offers for CitiPower's distribution area.

	2019	2020	CHANGE FROM 2019 TO 2020
Number of offers	174	87	Decreased by 87, 50%
Highest offer	\$10,399	\$7,670	Decreased by \$2,729 or 26%
Lowest offer	\$3,543	\$4,565	Increased by \$1,022 or 29%
Range of offers	\$6,856	\$3,105	Decreased by \$3,751 or 55%
VDO		\$5,294	
Offers below the VDO	107	76	Decreased by 31, or -29%
Median offer below the VDO	\$4,634	\$5,243	Increased by \$608, or 13%
Average offer below the VDO	\$4,522	\$5,122	Increased by \$600, or 13%
Lowest offer below the VDO	\$3,543	\$4,565	Increased by \$1,022 or 29%
Range of offers below the VDO	\$1,751	\$729	Decreased by \$1,022 or -58%

Source: Energy made easy, AEMC analysis.

⁶⁴ <https://www.aemc.gov.au/market-reviews-advice/residential-electricity-price-trends-2019>

Figure 4.8: Distribution of representative small business bill offers by offer type - CitiPower's distribution area



Source: Victorian Energy Compare (accessed 1 March 2019 and 1 March 2020), AEMC analysis.

4.4 Pricing products and innovation

This section outlines new pricing strategies and products introduced or expanded in the retail market this year. Interestingly, these new prices and products appear to be aimed at consumer groups with quite specific preferences (i.e market segmentation). This section provides a summary and examples of prices and products targeted at consumers who want:

- interaction and use of new technology through dynamic offers
- product add-ons
- simplicity and stability through simple offers.

4.4.1 Technology based offers

Last year's Review highlighted the trend towards more dynamic offers accessible to those who own or purchase a behind-the-meter battery to pair with their rooftop solar. In 2019 Australian households installed 22,661 battery systems, totalling 233MWh of storage.⁶⁵ This

⁶⁵ For more information see <https://onestepoffthegrid.com.au/australians-installed-22661-home-battery-systems-in-2019/>

year there has been an increase in offers linked to owning a battery due to the emergence of virtual power plants (VPP). There has also been a number of new retail offers targeting consumers who own an electric vehicle (EV).

The usual operation of a residential battery is to maximise the self consumption of solar generation. That is when there is more solar generation than household demand, charge the battery. When there isn't, use the battery to meet household demand. The battery operation can also be optimised based on time of use tariffs to minimise consumption at peak tariff times. There are a number of battery providers or value add software providers that seek to algorithmically learn and forecast consumption and generation patterns to minimise electricity bills for solar and battery owners.⁶⁶

Increasingly these software platforms are partnering with retailers or networks to access wider value streams, such as wholesale price arbitrage and network support, for their customers through VPPs. This potentially has large benefits for the system as a whole as it facilitates consumer access to wider value streams and reduces system costs for all. As the link between customers and the supply chain, retailers play a pivotal role in the realisation of such value. Their ability to make offers to customers that facilitate the efficient uptake and use of the assets is therefore crucial.

Battery technology

The prevalence of behind the meter residential batteries in the retail market is growing with the declining cost of battery technology and the introduction of government subsidy schemes. By 2024 BloombergNEF expects that battery prices, which were above \$1,100 per kWh in 2010 and \$156 per kWh in 2019, will fall below \$100/kWh in 2024.⁶⁷

Government subsidy schemes will further decrease the price of battery technologies for consumers making them an attractive investment for residential consumers. The subsidy schemes currently available include the:

- South Australia - \$100 million Home Battery Scheme to encourage 40,000 new battery storage systems.
- Victoria - \$40 million subsidy to encourage 10,000 new battery storage systems.
- New South Wales - Empowering Homes program helping consumers install solar and battery systems with 300,000 in interest free loans up to \$14,000. Currently limited to the Hunter region for 2020.
- Australian Capital Territory - Next Generation Energy Storage program, is supporting up to 5,000 battery storage systems in Australian Capital Territory homes and businesses.
- Queensland - Queensland Government's Interest-free loans for solar and storage program offers households and small businesses 4,000 assistance packages of interest-free loans and grants to purchase a battery system. Around 3,000 batteries had been installed by end of May. The program will end on 30 June 2020.

⁶⁶ Examples of these software providers include Reposit Power and Evergen.

⁶⁷ These prices are for the battery itself and do not include the additional balance of plant cost. For more information see <https://about.bnef.com/blog/battery-pack-prices-fall-as-market-ramps-up-with-market-average-at-156-kwh-in-2019/>

- Tasmania - No subsidy schemes available at the moment.

What is a VPP

A number of these subsidy schemes require batteries to be VPP enabled or to actively participate in a VPP. A VPP broadly refers to an aggregation of decentralised resources such as energy generating units like residential solar panels, batteries and flexible load resources (for example, EV charging). This array of devices is usually configured to respond to signals dispatched from a central control system in a coordinated manner. In the NEM these VPPs usually respond to price signals in the wholesale energy and FCAS markets.

VPP offers available

The value received by consumers from participation in a VPP will depend on the business model offered to them by VPP operators. VPP operators may take full control over the battery on a day to day basis or it may be restricted to a limited number of times per year when the value available peaks, leaving the battery for the consumers to use during other periods. This has potential benefits for all electricity consumers because more resources responding to market price signals reduces total system demand and costs.⁶⁸

The SA VPP program has driven a lot of early interest, with over 12,000 subsidies so far being taken up as of April 2020, which once installed will equate to over 146 MWh of residential storage in SA.⁶⁹ The scheme has been designed to scale subsidy levels down when market competition and technology cost reductions work together to bring customer installation prices down. This program has sparked an increase in VPP/battery related offers not only in SA but in other jurisdictions as well. A summary of a select number of available VPP offers is included in table 4.12 below. The full list of VPP offers available include; SA VPP also known as the Tesla Energy Plan (run by Energy Locals and Tesla), AGL, ShineHub (partnership with Powershop), Stoddart Group (with Powershop and Reposit), Simply Energy, Origin, Energy Australia, Powerclub, Plico Energy, Discover Energy, AusGrid, SonnenFlat.⁷⁰

Table 4.12: VPP offers comparison

VPP PROVIDER	AGL	SA VPP/ TESLA ENERGY PLAN	STODDART GROUP (WITH POWER-SHOP AND REPOSIT)
VPP subsidy	\$100 bill credit sign-on bonus. \$45 bill credit per quarter.	Powerwall for \$5,499 (typically \$7,700) plus installation.	Installation free of charge. Ownership transfers to homeowner after 5 years.
Eligibility	AGL customers in	Must be a South	New South Australian

68 <https://aemo.com.au/-/media/files/electricity/nem/der/2019/vpp-demonstrations/aemo-knowledge-sharing-stage-1-report.pdf?la=en>

69 <https://www.pv-magazine-australia.com/2020/04/17/thousands-of-south-australian-households-rush-to-install-batteries/>

70 For more information on these VPP offers see the Reviews Microsite.

VPP PROVIDER	AGL	SA VPP/TESLA EN-ENERGY PLAN	STODDART GROUP (WITH POWER-SHOP AND REPOSIT)
requirements	New South Wales, Queensland, South Australia and Victoria.	Australian resident.	home buyers through Stoddart Group partner residential developers.
Number of places in program	TBD	Up to 50,000 planned	10,000 over four years
Usage tariff (c/kWh)	40.38*	31.13 (-22.63 for charging prior to grid events**)	35.75 (26.91 for solar self consumption)
Feed-in tariff	18*	10	0
Daily supply charge	89.10*	0	111.24
Batteries approved for use	LG Chem RESU "HV" or Tesla Powerwall 2.	Tesla Powerwall only.	Solax.
Control of battery	VPP will take control up to 30 times a year.	VPP will have full control. (resident reimbursed for charging prior to grid events)	VPP has full control over battery for 5yr program.
Minimum energy storage capacity reserved for homeowner	Capacity reserve varies.	Up to 20% battery capacity can be reserved.	No capacity reserve.
Contract terms (length/cancellation fee)	1yr / \$0	1yr / \$100 per month remaining.	5yr / \$1500 per year remaining.
More information	AGL website.	Tesla website.	StodddartPay and announcement.

Source: <https://www.solarquotes.com.au/battery-storage/vpp-comparison/>

Note: *No VPP-specific tariffs offered - you simply use your existing plan with AGL. AGL's Residential Solar Savers Online offer tariff used for comparison.

Note: **"grid charging credit" when battery is charged from the grid in preparation for a grid event.

Retail contestability is clearly allowing retailers and different battery service providers to test different cooperative relationships and subsequent offers for customers, as showcased in table 4.12 above. This diversity is apparent in the described offers. The three offers package up the value to customers through different business models and seek to reward customers for involvement in differing ways.

Each offer has a different approach to the purchase of a battery:

- AGL leave a customer to make their own purchasing decision and provides \$280 over the first year of participation for customers⁷¹
- SA VPP/Tesla Energy Plan (TEP) offers a customer an additional \$2,201 off the purchase price of the Tesla Powerwall in exchange for signing up to the TEP for at least a one-year period
- Stoddart Group provides a free solar and battery installation for new build developments in exchange for five years participation.

Subsequently, the terms and conditions of participation diverge as well. AGL lets a VPP customer choose the AGL offer which suits them. Tesla requires customers to sign up to the TEP.⁷² The TEP removes the fixed daily supply charge and provides the cheapest usage tariff in SA and a feed-in tariff.⁷³ While, Stoddart Group requires the participant to sign up to the Powershop SunYield offer. The SunYield offer charges a standard usage tariff, a high daily supply charge and no feed-in tariff as well as charging participants a 30 per cent reduced rate, from the usage tariff, for solar self consumption.

The level of control exercised by the retailer over each battery differs. AGL takes control over the battery for up to 30 grid events per year while leaving a reserve capacity for the customer during those events. TEP manages the battery on a day to day basis and reimburses customers for any energy consumption prior to a grid event and leaves up to 20 per cent battery capacity for the participant. Stoddart Group has full control over the solar and battery system for the life of the 5-year arrangement, after which the participant takes ownership of the system. There are also differences in the arrangements for customers to leave the VPP. AGL lets customers leave at no cost, TEP charges a participant \$100 per month of the remaining year while Stoddart Group charge \$1500 per year of the remaining five year deal.

This increase in activity related to battery offers has created a significant amount of choice available to customers looking to get the best value out of their battery investment. There are a number of different retailer business models that offer customers different levels of cost and benefit. The Commission considers these are signs of a healthy market forming to meet consumers needs and it is expected that the clarity around how and what value a customer receives will improve. This should occur as technology costs continue to decrease, and retailers and battery service providers develop greater understanding of how to use distributed energy resources profitably and in a way that meets customer preferences.

EV offers available

With an increasing uptake of EVs across Australia and the increased electricity consumption associated with EV charging requirements retailers have started to consider EV specific offers and tariffs. Currently EV specific retail offerings either provide standard flat rate, time of use or controlled load tariffs with attached products or services value added. From these offers,

71 AGL may be offering a limited subsidy to some customers in SA of \$1000.

72 Tesla also manages the SA VPP. SA VPP customers currently participating in the Phase I and II trials are not eligible to sign up to the TEP, as they do not own their own system.

73 The TEP is offered through authorised retailer Energy Locals.

detailed in Chapter 8, it is encouraging to see five separate tariff designs and strategies for targeting EV customers showcasing a considerable level of choice and variety for customers for such a small market.

EVs offer similar potential value streams to retailers as batteries in relation to the ability to charge flexibly and even act as a generator in discharging electricity to the grid. This means they can be useful to VPPs when technology development leads to greater grid interoperability. The innovation occurring for battery related products is likely to create many learnings for retailers in developing EV or integrated DER offers for customers. Further information on EVs in the retail market is available in chapter 7.

4.4.2 Product add-ons

The 2019 Review identified that retailers are increasingly diversifying their offerings through value-add enticements to compete for customers. This is through offering customers non-price product add-ons in the form of cash/credit or non-cash incentives. These incentives are aimed at specific groups of customers as a point of difference.

The most common non-price product add-ons were cash or credit incentives to sign up online or refer a friend to the service. An example of this continuing in 2020 is Powershop's \$100 sign up credit referral bonus for referee and referrer as well as a \$100 donation to Foodbank.⁷⁴

A number of retailers have partnered with a range of organisations to create a rewards scheme for their customers. This provides them with deals and discounts on movie tickets, groceries, restaurants, fuel, accommodation and white goods. This has been continued this year when Origin partnered with UberEats for a limited time, on its Basic plan which had prices set at the DMO or VDO, to give customers 30 free deliveries over three months. Another example was Alinta partnering with Kayo Sports, as detailed in Box 9 below.

In interviews with the Commission, retailers noted that they would expect these trends to increase over time. Retailers noted that with decreased price dispersion between offers under price regulation and restriction in advertising practices, it would be more important and relatively easier to attract customers through non-price means.

There are a select number of retailers currently providing carbon offsets to a consumer's consumption at no extra cost. This provides an avenue for carbon conscious consumers to reduce their impact outside of the GreenPower offerings that usually come at an extra cost.⁷⁵ However, OVO Energy's 'The One Plan' offer, new in 2020, comes with ten per cent GreenPower as standard, additional to being 100 per cent carbon neutral through offsets⁷⁶

74 For more information see <https://www.powershop.com.au/sym-supercharge-terms-and-conditions/>

75 GreenPower offerings may become cheaper as the cost of certificate compliance for retailers reduces due to the forecast declines in the price of Large-scale Generation Certificates (LGCs). For more information on forecast LGC prices see the Quarterly Carbon Market Report, Clean Energy Regulator, December Quarter 2019.

76 For more information see <https://www.ovenergy.com.au/plan>.

BOX 9: ALINTA ENERGY SPORTS PACK PLAN

Alinta is the Official Partner of the Australian Men's Cricket team and has expanded its relationship and targeting of sport loving customers by offering the Alinta Energy Sports Pack Plan. This plan charges customers eight per cent under the DMO or six per cent under the VDO for Victorian customers.

In addition to the basic usage and fixed rates the offer provides customers with a subscription of Kayo Basic, a sports streaming service, for 12 months. This provides customers with up to \$300 of value for the year in additional value.

Source: For more information see <https://www.alintaenergy.com.au/nsw/residential/electricity-and-gas/products/score-a-sports-energy-deal/>.

4.4.3

Simpler offers

There has been an increase in simple offers in the past few years, as highlighted in last year's Review, which provide a higher level of bill certainty and are likely to cater to those customers who do not want to engage with the market. In interviews with the Commission, retailers noted that recent regulatory changes, including the regulation of conditional discounting and the introduction of the DMO and VDO, would encourage this trend to continue.

This type of offer includes amaysim energy's⁷⁷ and EnergyAustralia's⁷⁸ mobile phone style offers that include monthly subscription payments. While these offers may not result in the lowest bill outcome for consumers, they do provide certainty about a consumer's bill allowing them to plan accordingly.

4.5

Retailer outcomes

This section focuses on how competition is affecting the performance of retailers in the retail electricity markets in Victoria, South Australia, New South Wales and South East Queensland. In the absence of information gathering powers, the Commission is not able to provide a complete picture of how retailers are performing in the electricity market with regard to margins. The ECA has submitted a rule change request to create a reporting obligation on retailers to regularly report data on revenues, costs and customers on different pricing plans.⁷⁹

In the meantime, the ACCC's ongoing electricity market monitoring inquiry has reviewed margins and its information gathering powers allowed it to take an in-depth look at the financial position of all retailers. Publicly listed retailers also make disclosures about their performance and the Commission has included this information in our analysis.

This section will:

⁷⁷ For more information see <https://www.amaysim.com.au/energy-plans>.

⁷⁸ For more information see <https://www.experienceon.com.au/easy-plans>.

⁷⁹ For more information on this rule change see project page : <https://www.aemc.gov.au/rule-changes/retail-market-transparency>

- explain the types of retail margins, the context for analysing them, and ACCC findings
- interpret the available margin data.

The Commission will also use this analysis to provide a baseline of profitability prior to COVID-19 against which to assess the impacts of COVID-19 in futures reports. Chapter 7 outlines the risks that retailers face under the COVID-19 pandemic.

4.5.1 Retail margins

To provide services to customers, retailers need to earn revenue that covers their costs and generate a return that is proportionate with the operating and regulatory risks they manage. A particular risk commonly managed by electricity retailers is to protect customers from being exposed to the price volatility of the wholesale electricity spot market in the retail prices they pay.

Types of retailer margins

There are three widely-used measures of margins:

- Gross margin is defined as a retailer's revenue less the costs of goods sold. This is the broadest type of margin and a high gross margin for a business may simply reflect high operating costs or high risks, rather than the business being economically profitable.
- Net margin, also sometimes known as earnings before interest tax, depreciation and amortisation (EBITDA), is a retailer's revenue less the costs of goods sold, less the costs associated with operating the retail business. While a better measure of profitability than gross margin, a positive net margin may simply reflect that the business has large infrastructure costs or has substantial risks that it is trying to recover, rather than it being economically profitable.
- Risk-adjusted net margin, also sometimes known as economic value add, is the net margin less the return of (depreciation) and return on capital. This margin reveals more about the true profitability of the business and is the closest accounting measure to assessing economic profit. In an effectively competitive market, this margin would, in the long-run, expected to be close to zero.

The risk-adjusted net margin is the best margin from which to carry out an assessment of the effectiveness of competition over time. It is also the hardest to measure. In particular, the risk-adjusted net margin relies on information about a retailer's return on capital, which in turn is a function of a retailer's cost of debt and cost of equity. While the cost of debt is generally observable, the cost of equity requires estimation.

ACCC findings: November report

In November 2019, the ACCC released its second Monitoring of supply in the National Electricity Market report. As part of this report, the ACCC used its information gathering powers to carry out a more in-depth review of trends in costs and profit margins compared to its first report. Some observations made included:

- Retail gross margin accounted for 15 per cent of the average annual bill for a residential customer in 2018–19 across the NEM. Of this amount, 11 per cent is attributable to retail costs and 4 per cent to the retail margin.
- Victoria and New South Wales have the highest retail margins, and South Australia and Queensland have the lowest.
- EBITDA margins across the NEM have decreased on average from \$93 to \$66 per customer between 2017-18 to 2018-19.
- NEM-wide retail costs have remained relatively stable over recent years, after peaking in 2013–14 at \$158 per customer. Retail costs decreased by \$5 to \$137 per customer from 2017-18 to 2018-19. Though, there is significant variation within the costs of the three Tier 1 retailers and within the non-Tier 1 category.
- All cost components, apart from retail margin, increased over the longer term between 2007–08 and 2018–19.

Public retailer financial reports

The following information has been identified from the information presented by energy companies in publicly available reports:

- **Origin Energy** stated that FY2019 Energy Markets underlying EBITDA was 1,574 million with expectations of profit reductions from DMO/VDO of \$100 million for FY2020. Origin also stated Cost to serve savings of \$40-\$50 million reflecting ongoing transformation efforts in the Retail business.⁸⁰
- **Snowy Hydro** noted retail EBITDA was \$111.3 million a decrease of 17% from \$134.6 million in FY2018. Explaining that lower average gas usage per customer in Victoria, lower average electricity usage per customer in NSW, and tighter margins due to competitive pressures were the primary drivers of the reduction in EBITDA.⁸¹
- **AGL** stated that Customer Markets Underlying EBIT was \$194 million, down 4.0%, driven by lower gas volumes in the Consumer and Large Business portfolios and lower late payment fees. Specifically stating that fees, charges and other margin was \$27 million, down 64.9%, due to a decrease in late payment fees reflecting a positive trend of customers paying on time.⁸²
- **EnergyAustralia's** owners CLP group highlighted that the business had endured one of its most challenging years with reduced retail gross margin, down \$150 million from 2018 to 2019, caused by the resultant impacts from price re-regulation, higher discounts and lower retail sales volumes.⁸³

80 <https://www.originenergy.com.au/content/dam/origin/about/Origin-2019-Annual-Report-Online.pdf> page 20

81 <https://www.snowyhydro.com.au/wp-content/uploads/2019/10/Snowy-Hydro-Limited-Annual-report-for-the-year-ended-30-June-2019.pdf> page 39

82 https://www.agl.com.au/-/media/aglmedia/documents/about-agl/investors/annual-reports/agl_annual_report_090819.pdf?la=en&hash=2890C67A39531E9197467BBC1F87B463 page 46

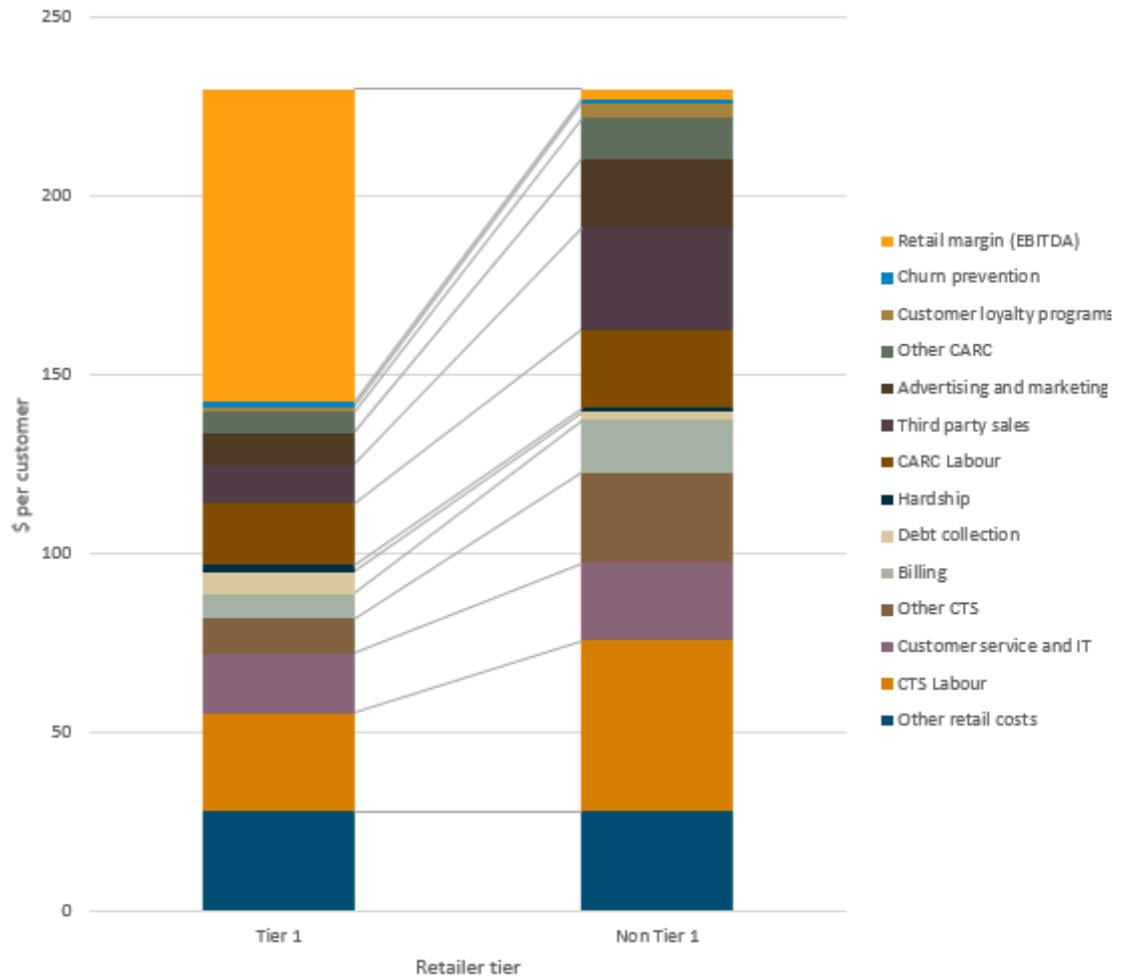
83 https://www.clpgroup.com/en/Investors-Information-site/Documents/Financial%20Report%20PDF/e_2019Annual%20Report.pdf page 63.

Difference in margins by retailer tier

Figure 4.9 below uses the data made available by the ACCC in its November report to analyse the breakdown the retail costs and resultant margins. This figure highlights the difference between retail margins for Tier 1 retailers and the rest of the retailers in the NEM. This is based off data from prior to the Covid-19 pandemic. It is clear that Tier 1 retailers have larger net margins than non-Tier 1 and three retailers. This may be due to economies of scale allowing larger retailers to spread fixed retail costs over a larger customer base.

The Covid-19 pandemic will potentially increase costs for retailers, as explored in Chapter X, this will have a different effect on retailers based on their existing and historical margins. For Tier 1 retailers the larger margin experienced over the last few years should act as a financial shock absorber to the effects of the pandemic. In contrast, the slim margins of non-Tier 1 providers mean that any increases in their costs which cannot be passed through to consumers may cause financial stress.

Figure 4.9: Gross margins by retailer tier



Source: AEMC analysis of data available in the ACCC November 2019 Monitoring of supply in the National Electricity Market report.

4.5.2 Interpreting retail margin data

Effective competition drives individual retailers to optimise their revenues by meeting customer needs and minimising their costs by restricting expenditures to economically efficient levels. Collectively, effective competition should mean that over time any excess margins are competed away. A view of retailer margins over time can therefore be an indicator of the effectiveness of competition. However, interpreting margin results is not necessarily straightforward. The process of innovation — whether that is at a product, pricing or service level — may mean one retailer gains an advantage in the market for a period. That advantage may relate to its revenues or costs, but will increase margins until its competitors catch up or surpass its offerings.

It can be very difficult to draw any definitive conclusions on the effectiveness of competition from just assessing margins in isolation. Margins need to be considered alongside important contextual information. For example, there may be no concerns about the effectiveness of competition where margins are increasing due to much lower operating costs, and customers are still experiencing lower prices and higher levels of satisfaction. In contrast, high gross margins being earned over time by a business where it is undertaking little innovation, managing minimal risks, and having decreasing levels of customer satisfaction, is likely to suggest problems with the effectiveness of competition in that sector.

Given the expectation that regulatory bodies use retail margins as one of the indicators to come to conclusions regarding the effectiveness of competition it is important that the requisite information is made available. This issue has been raised by Energy Consumers Australia (ECA) which have proposed a rule change to create a reporting obligation on retailers to regularly report data on revenues, costs and customers on different pricing plans. The ECA believes that this will address the need for informed evidence-based policy discussion and improved consumer confidence through the transparent provision of retail pricing and margin data.⁸⁴

84 For more information on this rule change see project page : <https://www.aemc.gov.au/rule-changes/retail-market-transparency>

5 CONSUMER BEHAVIOUR, SENTIMENT, AND OUTCOMES

BOX 10: SUMMARY OF KEY FINDINGS

Behaviour

- Overall retailer switching rates have declined five per cent since 2018. At 19 per cent, NEM-wide switching rates are now similar to those recorded in 2016, a three-year low.
- For residential consumers, the main motivation for switching continued to be dissatisfaction with the value for money offered by their current energy plan (17 per cent).
- 55 per cent of residential consumers' say they have access to easily understood information, which has decreased after reaching its highest level on record at 60 per cent in October 2019.

Sentiment

- For residential consumers, overall satisfaction with value for money has reached a four-year high for both electricity (57 per cent) and gas (68 per cent), continuing an upward trend from a low base. Satisfaction with the value for money of electricity increased in all markets. Most notably, satisfaction with value for money is up 18 per cent in New South Wales, 13 per cent in the Australian Capital Territory and South Australia, and 12 per cent in Victoria.
- For residential consumers, the value for money for electricity remains well behind all comparable utility services.
- 36 per cent of residential consumers say they are confident that the market is working in the long-term interests of consumers, the highest positive rating in four years. However, this increase comes from a low base with nearly two-thirds of consumers not expressing confidence in the market.

Outcomes

- Total residential consumer complaints to retailers decreased four per cent since 2017-18, continuing a four-year downward trend.
- The proportion of consumers in hardship programs remains low (approximately one per cent), despite the absolute number of consumers in this category having increased since 2017-18.
- The average debt on entry for electricity hardship consumers in the NEM decreased or remained the same in all jurisdictions except New South Wales, which recorded a \$68 increase, to \$1,102.
- Future reviews may have more access to actual prices paid by consumers given new ACCC reporting on the matter.

Having examined the structure of the retail market and retailer conduct earlier in the report, this chapter provides an overview of residential and small business consumer behaviour, sentiment and outcomes. In the context of the COVID-19 pandemic, this chapter will present data as observations prior to the pandemic with minimal analysis, and may serve as reference point for future reviews to compare against. In particular this chapter provides observations on:

- switching behaviour
- sentiment and satisfaction, with a focus on confidence in the market, satisfaction with services and perceived value for money
- outcomes, with a focus on complaints, hardship program metrics, disconnections, and average bill outcomes for consumers.

Data on consumer sentiment and satisfaction is sourced from the Energy Consumers Australia's (ECA) biannual Energy consumer sentiment survey (ECA Survey). Survey results have been compared on a year-to-year basis due to seasonality in the biannual survey responses (i.e. April 2019 to April 2020). Survey results are generally more pessimistic in September/October when compared to those in April.

This year the Commission worked with the ECA to improve the small business consumer behaviour survey to include in this report.⁸⁵ As a result of not using the ECA's small business sentiment survey results in previous reports, some indicators covered in this chapter may differ from those presented in the 2019 report.

Consumer outcome data has been primarily extracted from the latest ACCC and the Essential Services Commission of Victoria's (ESC) annual retailer performance reporting.

Detail on jurisdictional results can be found on the report's microsite.

5.1 Switching behaviour and consumer choice

A measure of the development of competition is how well consumers interact with and are engaged in the retail energy market. One way that consumers can engage with the energy market is by switching retailers or plans. In order to do this, consumers rely on their ability to make choices and access to comprehensible information on energy plans. This section analyses behaviours for both residential and small business consumers in the following areas:

- consumer switching activity, and the reasons for switching activity
- ability to make choices, and access to easily understood information.

5.1.1 Switching activity and reasons for switching

Residential consumers

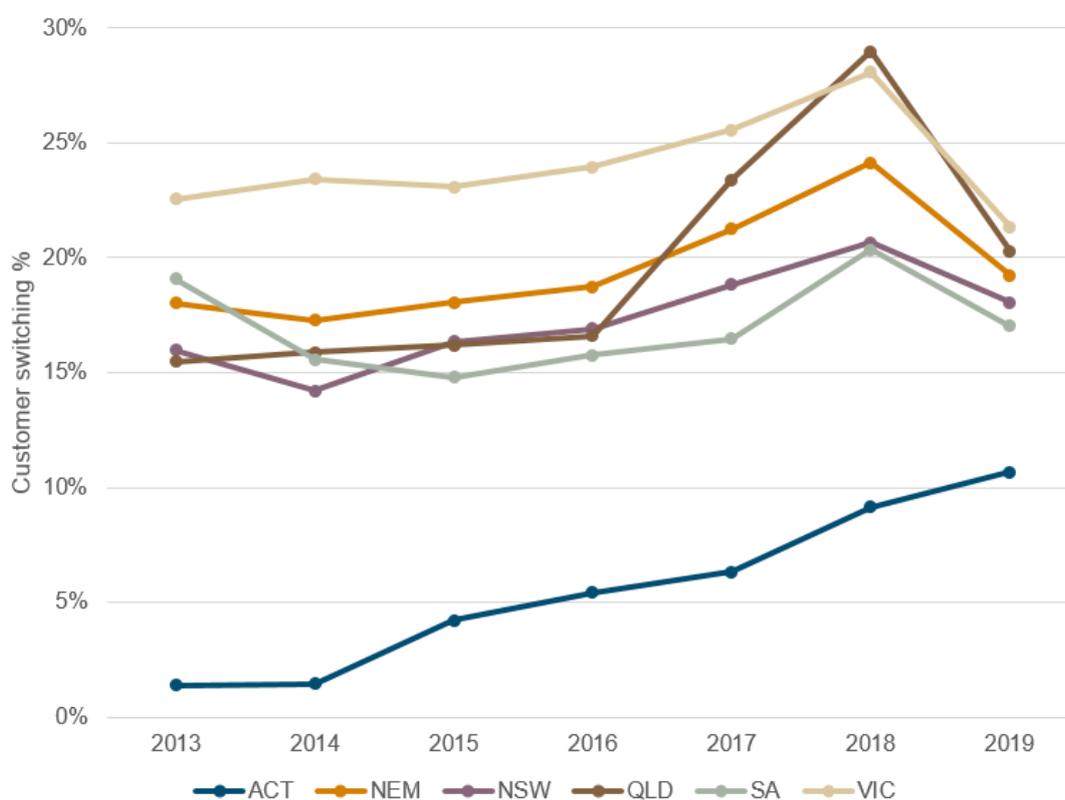
Switching activity

Figure 5.1 shows there has been a five per cent decrease in switching in 2019 across the NEM. The decrease in switching was consistent across most jurisdictions with the biggest

⁸⁵ This included increasing the sample size used.

drops in switching seen in South East Queensland (eight per cent) and Victoria (seven per cent). The exception to this was the Australian Capital Territory where switching increased in 2019, which was also the only jurisdiction in the graph where the DMO was not in force (or VDO in Victoria).⁸⁶ Chapter 4 provides further analysis of switching.

Figure 5.1: Overall consumer electricity switching



Source: AEMO, AEMC analysis

Motivation for switching

The ECA survey asked consumers in New South Wales, Victoria, South Australia and Queensland their motivation for switching activity (including simply searching for a new offer). In the April 2020 survey, the three most common reasons given across jurisdictions were:⁸⁷

- dissatisfied with the value for money (17 per cent)
- searched for a better offer on a price comparison website (15 per cent)
- approached by a competitor with a different offer (13 per cent).

⁸⁶ The Australian Capital Territory does have a regulated price cap for ActewAGL's standing offer, but other retailers can set their standing offers above or below this.

⁸⁷ AEMC analysis of ECA survey April 2020 data.

Small business consumers

Switching activity

Small business switching data is included in the overall switching results presented in Figure 5.1 above.

Since April 2018, the ECA survey has asked small business consumers about their intention to switch plans or retailers over the next 12 months. 61 per cent of small businesses indicate they would not be switching. A display of the results since 2018 is on the microsite.⁸⁸

Motivation for switching

The ECA survey asked small business consumers their motivation for switching activity (including simply searching for a new offer). In the April 2020 survey, the three most common reasons given across jurisdictions were:⁸⁹

- searched for a better offer on a price comparison website (26 per cent)
- dissatisfied with the value for money (20 per cent)
- were approached by a competitor with a different offer (16 per cent).

5.1.2

Ability to make choices and access to information

In an effectively functioning competitive market consumers are likely to have increasing confidence in their ability to make decisions over time. Such an increase would be driven by retailers competing to meet consumer needs, and by consumers' increasing levels of familiarity with competitive markets.

An effectively competitive market should see improvements in consumer confidence about their access to easily understood information. An improvement would indicate that retailers are increasingly meeting consumers' expectations regarding information, supporting retail competition. Results are also likely to be influenced by the effectiveness of sector wide tools (for example, comparison sites) to assist consumers in making decisions.

Residential consumers

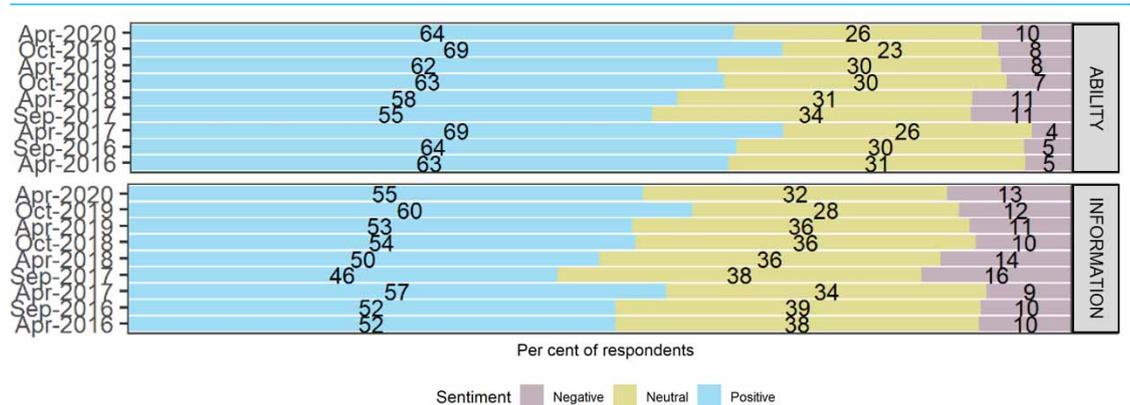
Figure 5.2 shows that there has been an increase in residential consumers' confidence in their ability to make choices about the electricity and gas markets in the past year. Confidence across all markets has increased by two per cent since April 2019, with 64 per cent of consumers recording positive responses in April 2020. The data shows that since the low confidence results recorded in September 2017, there has been an increase in consumers' confidence in their ability to make choices.

Figure 5.2 indicates that in the past year residential consumers have become more confident that there is easily understood information about electricity and gas markets available to them. Overall, the average percentage of residential consumers in the NEM that are positive about their access to easily understood information increased to 55 per cent, a two per cent increase from April 2019.

88 AEMC analysis of ECA survey April 2020 data.

89 Ibid.

Figure 5.2: Residential consumer confidence in ability to make choices and access to information



Source: ECA survey

Note: Information: Access to easily understood information; Ability: confidence in ability to make choices.

Small business consumers

There has been a notable increase in small business consumers' confidence between April 2019 and April 2020:

- confidence in access to easily understood information increased by seven per cent to 57 per cent.
- confidence in their ability to make decisions increased by seven per cent to 63 per cent.

A display of the results since 2018 can be found on the microsite.

5.2 Consumer sentiment and satisfaction

A high proportion of consumers who are generally satisfied with different aspects of the market may indicate an effectively competitive market. The following section explores consumer sentiment and satisfaction, as expressed in their perceptions of:

- confidence in the market
- satisfaction with retailer services
- perceived value for electricity and gas
- cross-sector comparison of value for money.

Commentary on small business survey results are provided below with figures displaying sentiment results on the microsite.

5.2.1 Confidence in the market

Residential consumers

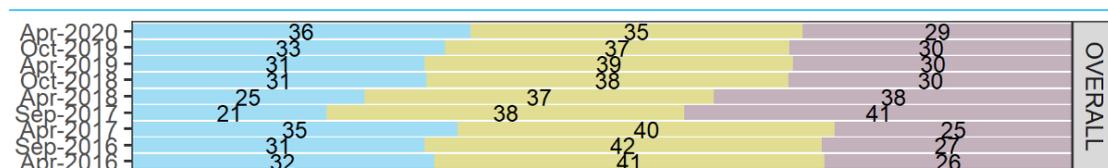
Figure 5.3 below indicates that only around one in three residential consumers are confident that the energy markets are working in their long-term interests. At 36 per cent, the April

2020 result demonstrates positive responses to the question reaching their highest rate in four years. However, this increase was from a low base (25 per cent in April 2018) and the results indicate that nearly two thirds of consumers are not confident that the market is working in their long term interests.

Across jurisdictions the changes in this indicator between April 2019 and April 2020 were:

- 13 per cent increase in Tasmania to 29 per cent
- eight per cent increase in the Australian Capital Territory to 26 per cent
- six per cent increase in New South Wales to 37 per cent
- five per cent increase in Victoria to 35 per cent
- five per cent increase in South Australia to 34 per cent
- two per cent increase in Queensland to 38 per cent.

Figure 5.3: Residential consumer confidence that market is working in long term interest of consumers



Source: ECA survey

Small business consumers

Small business consumers' confidence that the overall market is working in their long-term interests increased by three per cent between April 2019 and April 2020, with 45 per cent of small business consumers recording a positive response. This is the second highest figure recorded by the ECA survey since October 2018.

5.2.2

Satisfaction with energy services

The ECA Survey asked residential and small business consumers about their satisfaction with the customer service they receive from their electricity and gas retailers.

Residential consumers

Figure 5.4 shows that satisfaction with the provision of electricity and gas services has increased. For electricity, satisfaction has increased by seven per cent (to 69 per cent) since April 2019. For gas, satisfaction increased by seven per cent, (to 75 per cent) since April 2019. In both cases, these are the highest positive satisfaction score since the ECA survey commenced in 2016.

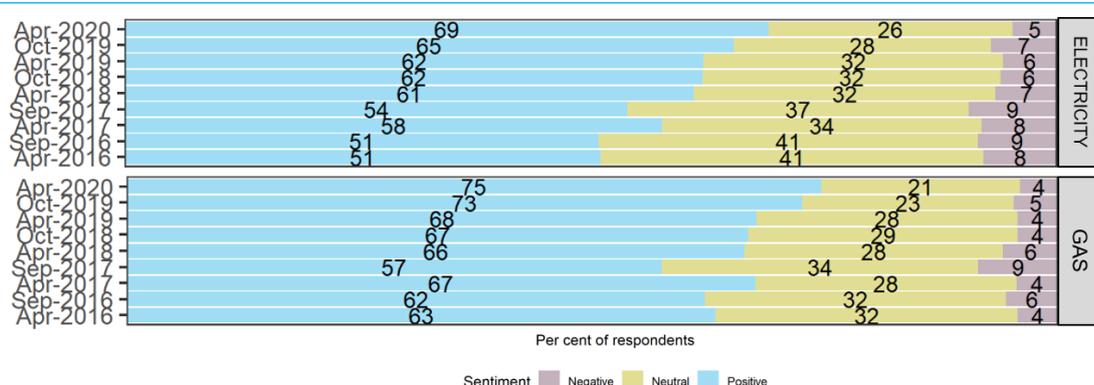
Across jurisdictions, the most notable changes in satisfaction with customer service for electricity between April 2019 and April 2020 were:

- 13 per cent increase in Victoria, to 68 per cent

- nine per cent increase in New South Wales to 68 per cent
- seven per cent increase in South Australia to 68 per cent.

In all jurisdiction except Tasmania, positive responses to the questions reached their highest levels since April 2016.

Figure 5.4: Satisfaction with electricity and gas services



Source: ECA October 2019 survey

Small business consumers

The ECA also measures satisfaction of small businesses with the customer service provided by electricity and gas retailers. For electricity, satisfaction increased by eight per cent to 65 per cent between April 2019 and April 2020. For gas, satisfaction increased by eight per cent to 71 per cent. In both cases, these were the highest positive figures recorded by the survey since April 2018.

5.2.3

Value for money

Residential consumers

The ECA Survey asks residential consumers about their satisfaction with value for money for both gas and electricity.

Electricity

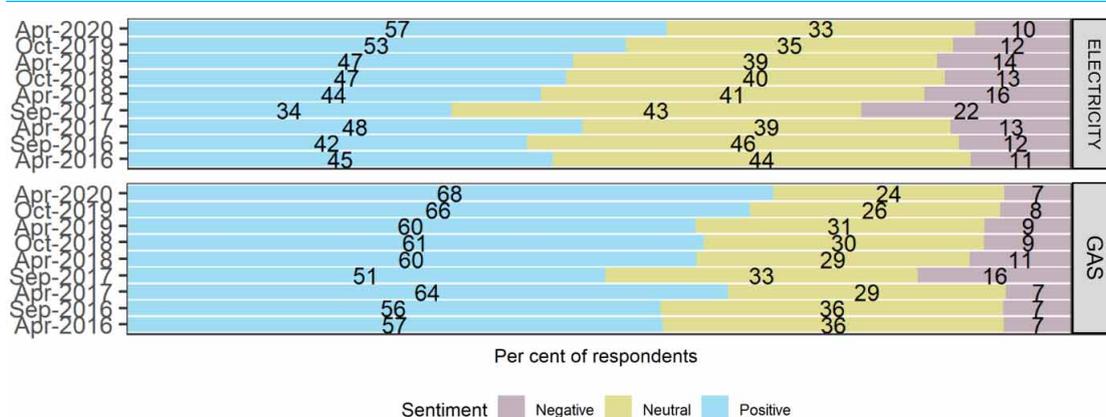
As shown in Figure 5.5 below, the satisfaction with the value for money of electricity has continued an upward trend reaching 57 per cent in the latest survey (April 2020), a ten per cent increase since April 2019. This trend is seen across all jurisdictions. Most notable increases between April 2019 and April 2020 have taken place in New South Wales (18 per cent), the Australian Capital Territory (13 per cent), South Australia (13 per cent) and Victoria (12 per cent).

While overall consumer behaviour trends have generally trended upwards since September 2017, a marked acceleration has taken place in the December 2019 survey, coinciding with price re-regulation.

Gas

Overall satisfaction with the value for money of gas increased eight per cent since April 2019, at 68 per cent. This is four per cent higher than the last highest positive response recorded, in April 2017 (64 per cent). Jurisdictional results showed increases of satisfaction with the value for money for gas in all jurisdictions, with the exception of Tasmania (11 per cent decrease).

Figure 5.5: Residential consumer value for money for electricity and gas services



Source: ECA survey

Small business consumers

Small business consumer satisfaction with 'value for money' for both electricity and gas has increased over the past year, with gas (69 per cent positive, four per cent increase) rated better value for money than electricity (58 per cent positive, six per cent increase). A full display of small business sentiment results for value for money since 2018 is on the report's microsite.

5.2.4 Value for money cross-sector comparison

The ECA Survey asks residential consumers and small business consumers about their satisfaction with value for money with insurance, internet services, mobile phones, banking and water. The results show how consumers consider the value of energy services compared to other services.

Residential consumers

Residential consumers surveyed indicated they:

- are least satisfied with the electricity sector. It has the lowest positive sentiment and the highest negative sentiment.
- place gas as the second lowest value for money utility ahead of electricity and equivalent to insurance.

Small business consumers

Small business consumers surveyed indicated they:

- are least satisfied with the electricity sector. It has the lowest positive sentiment and the highest negative sentiment.
- place gas as the highest value for money utility and fourth overall behind mobile phone services, banking and water.

A full display of value for money cross-sector comparison sentiment results is on the microsite.

5.3 Consumer outcomes

This section focuses on what outcomes small consumers are experiencing, including:

- the level of consumer complaints to retailers and ombudsmen
- consumers in hardship, including their level of debt
- disconnections
- average bill outcomes for consumers.

Detailed jurisdictional results can be found on the report's microsite.

In the context of the COVID-19 pandemic, this section will present data as observations taken in the above mentioned metrics prior to the pandemic. These observations may serve as reference points for future reviews to compare against, and measure the impacts of the pandemic on consumer outcomes.

5.3.1 Complaints

There is a hierarchy of resolution mechanisms available to consumers when they have an issue with matters such as billing, wrongful disconnections, credit arrangements, poor customer service and marketing practices:

- consumers make their complaint directly to their retailer for resolution
- if this does not produce a suitable outcome, then depending on the nature of the complaint, consumers can take a matter to their jurisdictional energy ombudsman, state-based fair trading agency or the ACCC.

The following analysis is based on consumer complaints made to electricity retailers and complaints made to ombudsmen for 2018-19.

Complaints to retailers

Residential

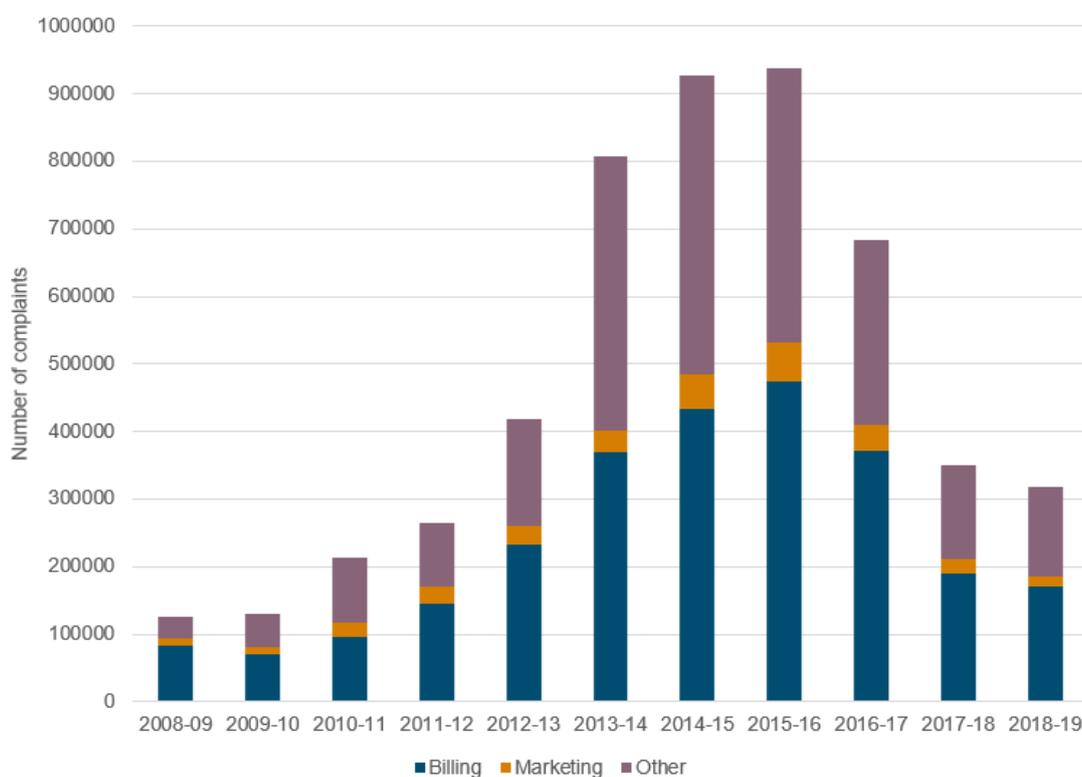
The AER collects data from retailers that provides the number of complaints lodged with retailers regarding:

- billing - complaints about prices, billing errors, payment arrangements, debt recovery practices and disconnections
- marketing - complaints about sales practices, advertising, contract terms and misleading conduct

- other - complaints about consumer transfers, customer service, privacy issues, failure to respond to complaints, health and safety issues and other matters.⁹⁰

Figure 5.6 below shows that total complaints (i.e. complaints including all areas listed above) reduced by four per cent since 2017-18. This is the fourth consecutive decrease in this indicator since 2015-16. While the overall number of complaints indicates consumer satisfaction levels, various issues that contribute to satisfaction are not directly controlled by retailers, such as supply issues.

Figure 5.6: Total complaints to retailers



Source: AER & ESC data

Small business

Small business complaints in NECF jurisdictions decreased by seven per cent since 2017-18 to 16,729 complaints. This is a reduction of 1,236 complaints.⁹¹

Complaints to ombudsman schemes

⁹⁰ AER, Annual retail market report 2018-19, November 2019, p. 49. The AER classifies consumer transfer complaints separately, within this report, the data is merged with the "other category." Consumer transfers includes complaints about timeliness of transfer, disruption of supply due to transfer and billing problems directly associated with a transfer.

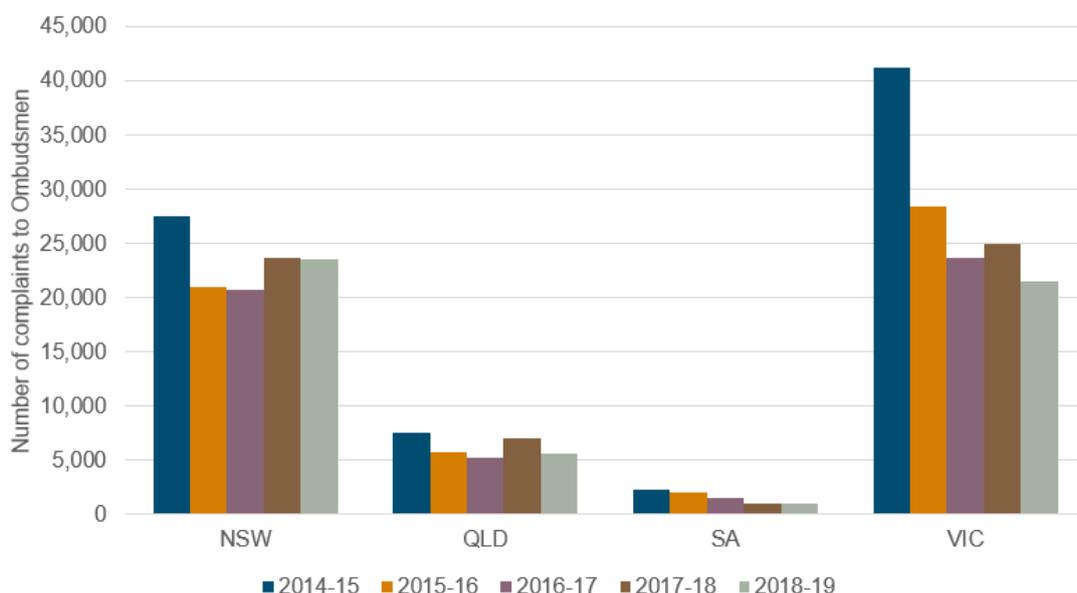
⁹¹ AER, Quarterly retail performance report Q1 2019-20, schedule 3.

Small consumer complaints to ombudsmen decreased by 14 per cent in the retail electricity and gas sectors, as seen in Figure 5.7.

Since 2017-18, complaints recorded by ombudsmen:

- increased by 23 per cent in the Australian Capital Territory
- decreased by 0.3 per cent in New South Wales
- decreased by 24 per cent in Queensland
- increased by three per cent in South Australia
- decreased by three per cent in Tasmania
- decreased by 16 per cent in Victoria.

Figure 5.7: Total complaints to ombudsmen across jurisdictions



Source: Ombudsman scheme data

Note: Australia Capital Territory and Tasmania data are excluded from the graph to assist data visualisation.

Breakdown of the types of complaints received by ombudsmen, as well as total complaints received in the Australian Capital Territory and Tasmania can be found on the report's microsite.

5.3.2

Hardship

In previous reports, the Commission has monitored several key metrics related to hardship. This approach is maintained in this report, where the key metrics for assessing whether hardship programs are providing support for consumers facing financial difficulty are the:

- number of consumers on hardship
- level of debt of hardship consumers

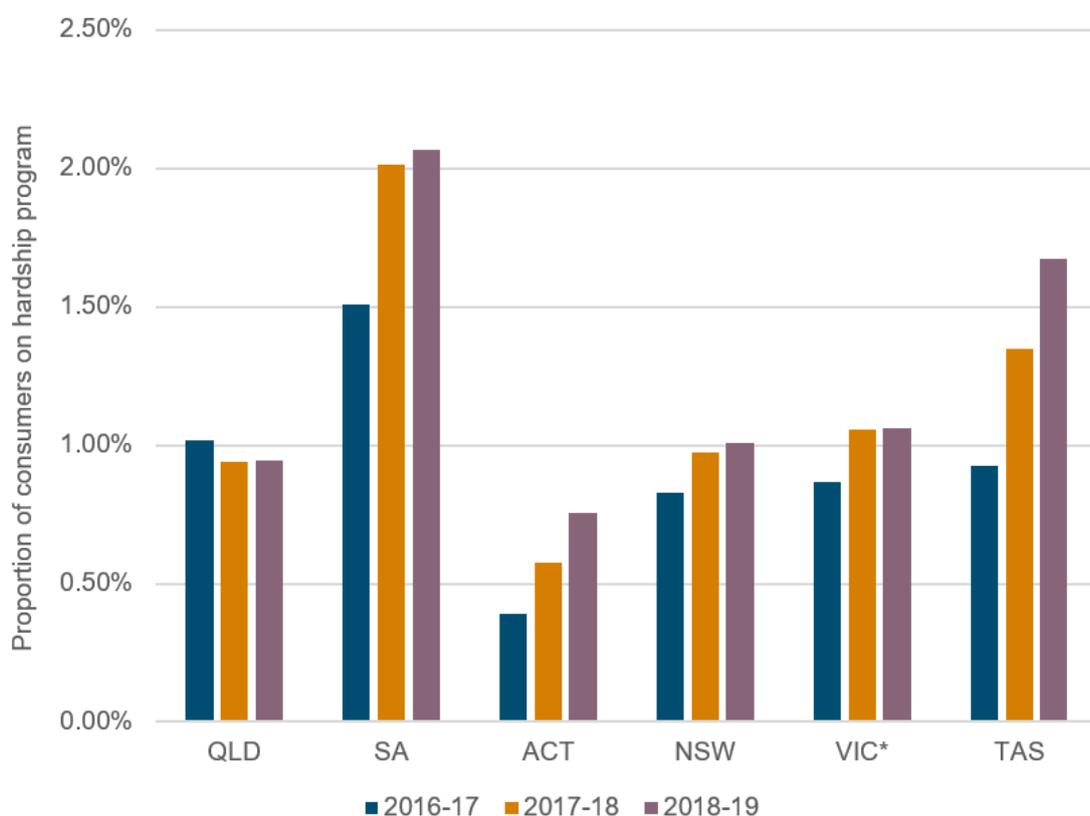
- number of consumers successfully exiting programs.

While these indicators do provide an indication of the performance of retailers in ensuring consumers in financial difficulty receive adequate support, they do not directly relate to the effectiveness of retail competition. Effective competition can deliver efficient prices, but even these may be unaffordable to some consumers given their personal circumstances.

Proportion of consumers on hardship programs

The proportion of residential and small business consumers in hardship programs recorded by the AER remains low (approximately one per cent), despite numbers of consumers in this category having increased since 2017-18.⁹² AER data indicates that in 63 per cent of cases, electricity consumers self-identify as being in financial hardship and make a request to join a hardship program.⁹³

Figure 5.8: Proportion of energy consumers on hardship programs



Source: AER, ESC. *ESC data for 2018-19 covers only July-December 2018, when the Payment difficulty framework came into effect.

⁹² AER, Quarterly retail performance report Q1 2019-20, schedule 4. Electricity customers in this category increased by 4445 between 2017-18 and 2018-19, the increase for gas customers was 246.

⁹³ AER, Annual retail market report 2018-19, November 2019, p. 73

Figure 5.8 illustrates the most significant changes in the proportion of consumers and hardship programs across jurisdictions. Notably:

- The proportion of energy consumers on hardship programs between June 2018 and June 2019 remained the same in Queensland and Victoria.⁹⁴
- South Australia (0.05 per cent) and New South Wales (0.04 per cent) experienced a very small increase in the number of consumers on hardship programs between June 2018 and June 2019.
- Tasmania (0.32 per cent) and the Australian Capital Territory (0.18 per cent) recorded the highest proportional increase in electricity consumers on hardship programs amongst jurisdictions, although because of the low number of customers in these jurisdictions the change in actual numbers is still relatively low.

Consumer debt on hardship programs

The average debt on entry to a hardship program is an indicator of energy affordability for vulnerable consumers. Higher debt on entry may mean that a consumer is less likely to be able to effectively manage their debt and exit a hardship program successfully. Higher debt on entry may also suggest that retailers do not have adequate processes in place for the early identification of consumers who are experiencing financial difficulties, before debt levels become unmanageable.

Increases in the average debt on entry into a hardship program across both electricity and gas could be linked to increases in electricity and gas prices. However, the data will not reflect the effect of revised hardship policies that are now in place following the AER issuing mandatory guidelines on retailer hardship programs in March 2019.⁹⁵

As shown in Figure 5.9, the average debt on entry for residential electricity hardship consumers in the NEM decreased or remained the same in all jurisdictions except New South Wales, which recorded a \$68 increase. The AER reported that overall (NEM-wide) figures decreased by \$104 since 2017-18.⁹⁶ The largest decreases were in:

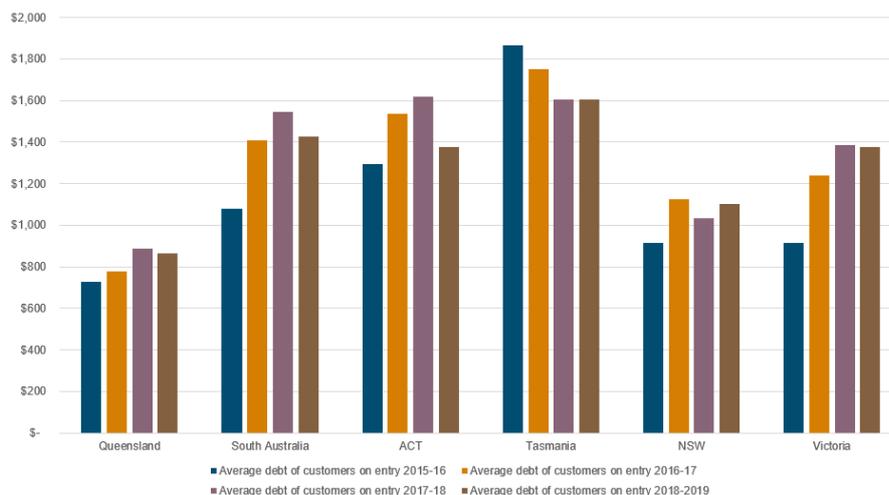
- the Australian Capital Territory, which recorded a decrease of \$241
- South Australia, which recorded a decrease of \$123.

94 Note that ESC data for 2018-19 covers only July-December 2018, when the Payment difficulty framework came into effect in Victoria.

95 The AEMC made a rule in December 2018 to give effect to the guidelines.

96 AER, Annual retail market report 2018-19, November 2019, p. 63.

Figure 5.9: Hardship consumers' average electricity debt on entry



Source: AER, ESC

Consumers exiting hardship programs

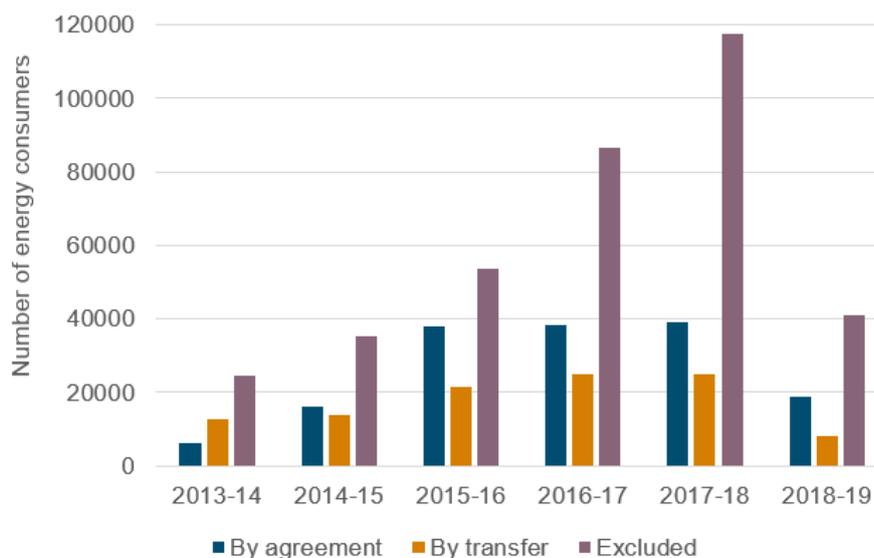
Another indicator of the success of hardship programs is the number of consumers paying off their arrears and exiting the program. The AER and the ESC look at the rates at which consumers:

- successfully exit a hardship program (also referred to as "by agreement"), indicating the consumer has paid off their debt
- switched, indicating a consumer has been transferred to another retailer
- were excluded or removed from a program, indicating that the consumer was unable to meet the payment arrangements set up under the program.⁹⁷

Figure 5.10 shows the five-year trend of the total number of consumers exiting a hardship program.

⁹⁷ Excluded consumers are susceptible to being disconnected at a later point in time.

Figure 5.10: Electricity and gas consumer exits from hardship programs



Source: AER, ESC (ESC data for 2018-19 only covers July-December 2018).

In considering total numbers of consumers exiting hardship programs (in Figure 5.10) and the importance of each category in a given year, it can be concluded that:

- The absolute number of consumers exiting hardship programs after successfully paying off their debt (i.e. by agreement) decreased by half since 2017-18. However, the proportion of consumers in this category increased by seven per cent over the same period, from 21 to 28 per cent.⁹⁸
- The absolute number of consumers who switched retailers (i.e. by transfer) decreased threefold since 2017-18. The proportion of consumers in this category decreased by two per cent over the same period, from 14 to 12 per cent.⁹⁹
- The absolute number of consumers being excluded from a hardship program decreased almost threefold since 2017-18. The proportion of consumers in this category decreased by four per cent over the same period, from 65 to 61 per cent.¹⁰⁰

The Commission notes that the ESC changed the way it recorded data from Victoria with regard to hardship programs from January 2019 because of the introduction of the Payment difficulties framework and, as a result, data for 2018-19 shown in the figure above does not reflect the full yearly data for Victoria.

⁹⁸ AER, Annual retail market report, November 2019, Charts and Tables.

⁹⁹ Ibid.

¹⁰⁰ Ibid.

5.3.3

Disconnections

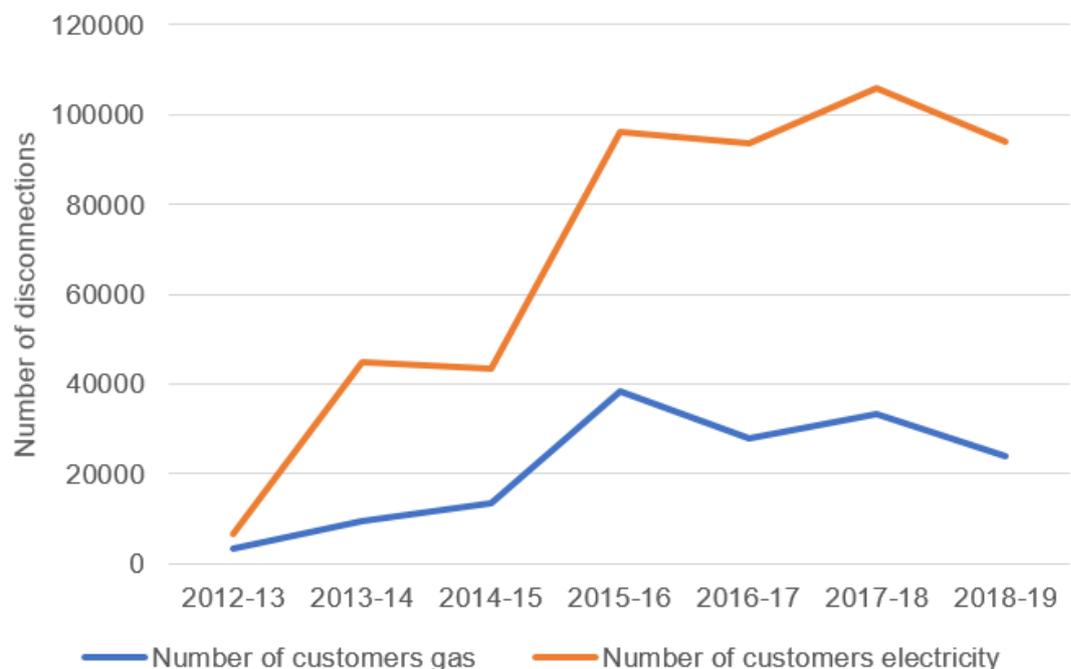
Consumer disconnections can arise as a result of non-payment of bills. The level of consumer disconnections may only be in part related to the effectiveness of competition. The rate of disconnections provides information about consumers' ability to pay their bills after going through any support programs.

Residential

There was a reduction in the proportion of disconnections across the NEM for both gas and electricity between 2017-18 and 2018-19.¹⁰¹ As shown in Figure 5.11 below:

- 12,052 less electricity disconnections were recorded. Proportionally, this is a decrease of 0.05 per cent, to 1.09 per cent of residential consumers.¹⁰²
- 9,419 less gas disconnections were recorded. Proportionally, this is a decrease of 0.09 per cent to 0.48 per cent of residential consumers.¹⁰³

Figure 5.11: Number of residential consumers disconnected - gas and electricity



Source: AER, ESC
Source: Includes Victorian data from 2015-16.

Across jurisdictions, the most significant changes in the proportion of disconnections since 2017-18 were:

¹⁰¹ AER, Annual retail market report 2018-19, November 2019, pp. 82-83.

¹⁰² AER, Annual retail market report, November 2019, Charts and Tables.

¹⁰³ Ibid.

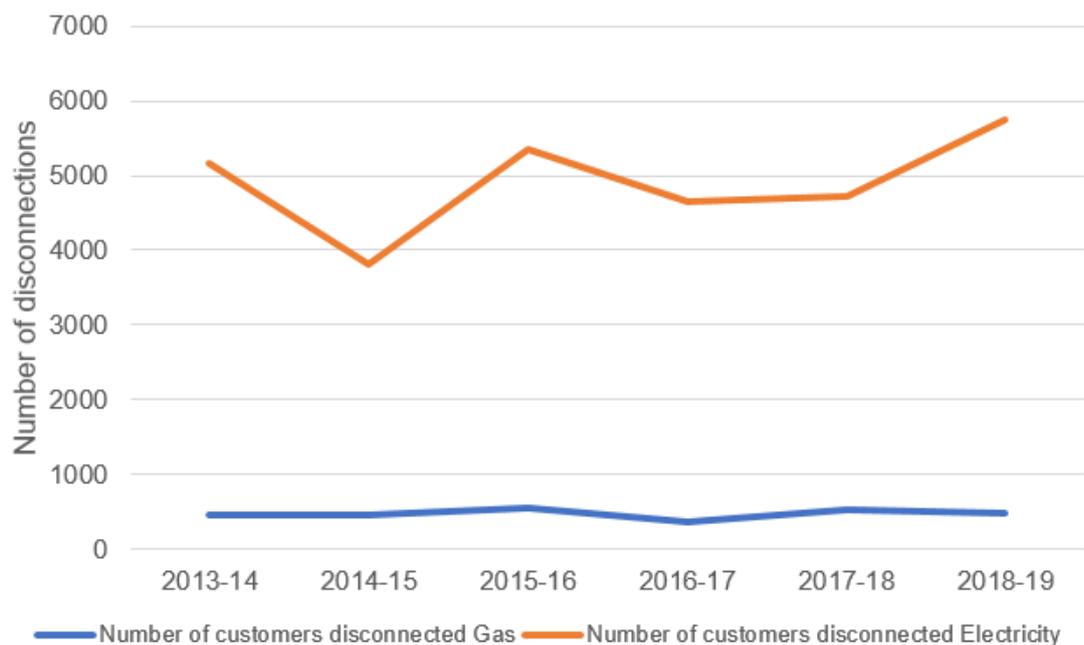
- 0.11 per cent increase in disconnections for electricity in the Australian Capital Territory.¹⁰⁴
- 0.08 per cent reduction in disconnections for electricity in Queensland.¹⁰⁵

Small business

The rate of disconnections also provides information about small business consumers' ability to pay their bills after going through any support programs. As shown in Figure 5.12:

- 1,021 more electricity disconnections were recorded. Proportionally this is an increase of 0.16 per cent, to 0.88 per cent of small business consumers.¹⁰⁶
- 44 less gas disconnections were recorded, proportionally this is a decrease of 0.09 per cent to 0.62 per cent of small business consumers.¹⁰⁷

Figure 5.12: Number of small business consumers disconnected - gas and electricity



Source: AER

Source: Does not include Victorian data - the ESC does not capture this separately from residential consumers.

5.3.4

Consumer bill outcomes

This section explores bill outcomes by analysing the average electricity prices paid by consumers across the NEM as reported in the November 2019 report of the ACCC's Inquiry into the NEM as well as the differences in bill components paid by consumers. Future reviews

¹⁰⁴ AER, Annual retail market report, November 2019, Charts and Tables.

¹⁰⁵ Ibid.

¹⁰⁶ AER, Annual retail market report, November 2019, Charts and Tables.

¹⁰⁷ Ibid.

may have more access to actual prices paid by consumers as the ACCC has started to report on this, and depending on the outcome of the pending Retail market transparency rule change.

Prices paid by consumers

Average prices paid by consumers

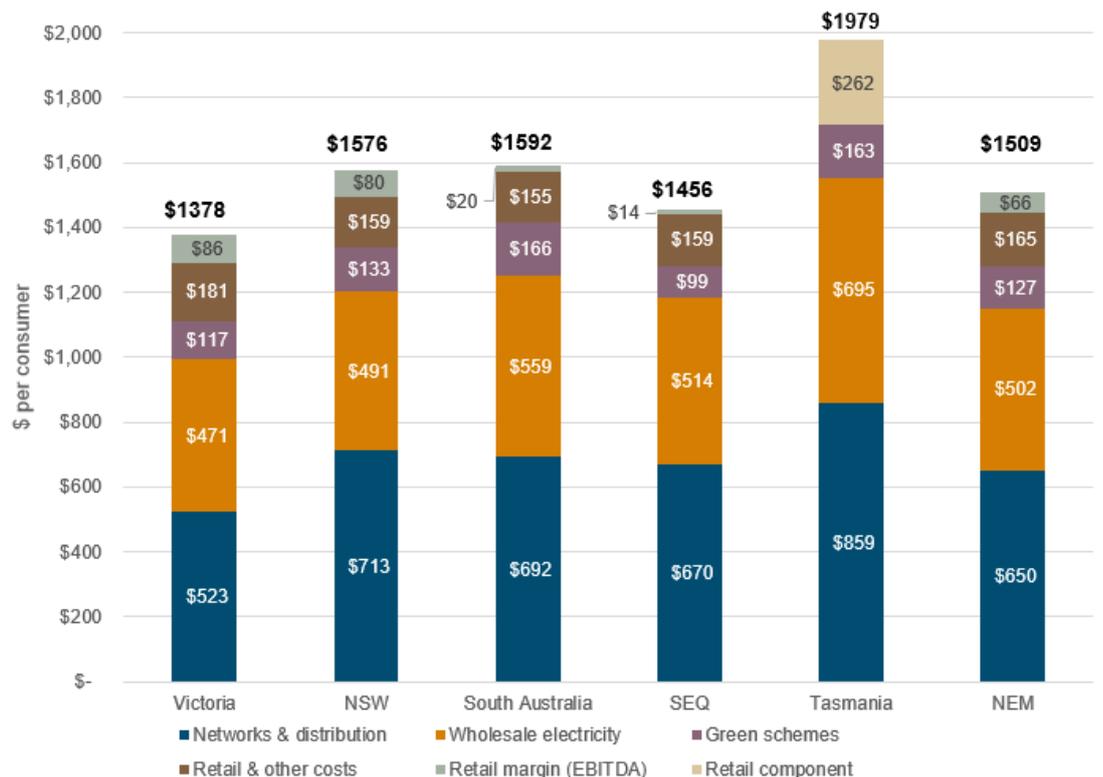
Figure 5.13 shows the weighted-average prices paid for electricity consumers across NEM jurisdictions (except for the Australian Capital Territory). The ACCC reported that the average annual bill for a residential consumer decreased by \$65 in real terms, or approximately 4 per cent, from 2017-18 to 2018-19.¹⁰⁸ For each jurisdiction, the annual variation in the average price paid:

- increased by \$2 in Victoria, or approximately 0.2 per cent
- decreased by \$101 in New South Wales, or approximately six per cent
- decreased by \$66 in South Australia, or approximately four per cent
- decreased by \$126 in South East Queensland, or approximately eight per cent
- increased by \$38 in Tasmania, or approximately two per cent.¹⁰⁹

¹⁰⁸ ACCC, Inquiry into the NEM November 2019 report, p. 31.

¹⁰⁹ Ibid, pp. 39-51.

Figure 5.13: Average prices paid by consumers



Source: ACCC

Note: Figures may contain rounding error.

Variations in bill components

ACCC has also provided data that shows the variation in different bill components since data was last collected. This data indicates the relative importance of each component of the electricity supply chain over time. NEM-wide, since 2017-18:

- Networks and distribution components decreased by \$16
- Wholesale component decreased by \$24
- Green schemes component increased by \$8
- Retail and other costs component decreased by \$6
- Retail margin (earnings before interest, taxes, depreciation and amortisation — EBITDA) component decreased by \$27.¹¹⁰

¹¹⁰ ACCC, Inquiry into the NEM November 2019 report, p. 30. Data excludes GST.

6 GAS MARKET STRUCTURE AND PRICING

BOX 11: SUMMARY OF FINDINGS

Market shares, switching rates and the types of products and services in the retail gas market were steady over the year. Similar to previous years, gas continued to be considered as a secondary related product to electricity rather than a stand-alone service. In particular, retailers in Victoria noted that it is difficult to be an electricity only supplier as many customers prefer dual fuel retail offers.

The key statistics in the gas market in 2019 were:

- Gas market concentration continued to steadily decrease in all jurisdictions. The shifts in market share are more gradual than in the electricity sector.
- The level of gas switching decreased in the NEM by three per cent since 2018. The exceptions to this trend were the Australian Capital Territory where switching increased by five per cent and South East Queensland which remained constant at a rate just under 10 per cent. The most significant fall in switching was in Victoria where switching levels fell almost five per cent, although Victoria still had the highest switching rate.
- Over the past year the change in the distribution of estimated gas bills was relatively small. The median standing offer gas bills increased slightly across most regions and the range of offers was largely unchanged.

The introduction of price regulation by the Commonwealth and Victorian Governments does not apply to gas.

6.1 Gas market structure

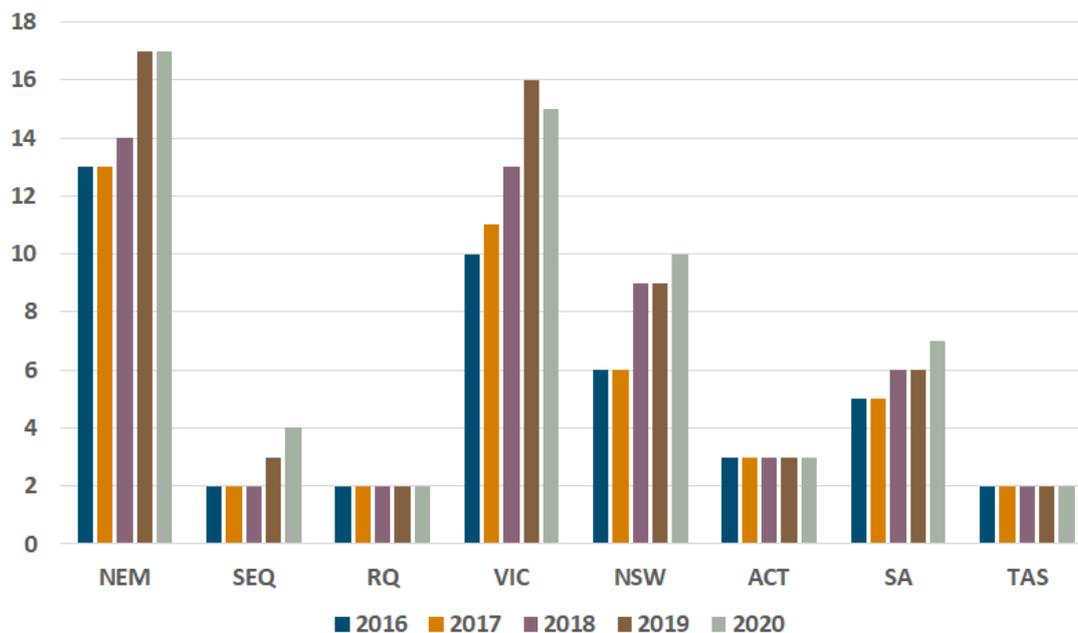
This section examines the gas market structure by investigating the number of active retailers and their ownership structures as well as consumer switching.

6.1.1 Active gas retailers

Figure 6.1 shows that as of March 2020 there was a total of 17 active retail gas brands across the NEM jurisdictions. GloBird Energy expanded into the New South Wales and South Australia gas markets, CovaU expanded into South East Queensland, while Tas Gas exited Victoria. In previous reviews.¹¹¹

¹¹¹ The Commission notes that in previous reviews this analysis has missed that 1stEnergy has supplied gas in Victoria since 2014. The below figure has been updated for this oversight.

Figure 6.1: Active gas retail companies



Source: AEMC.

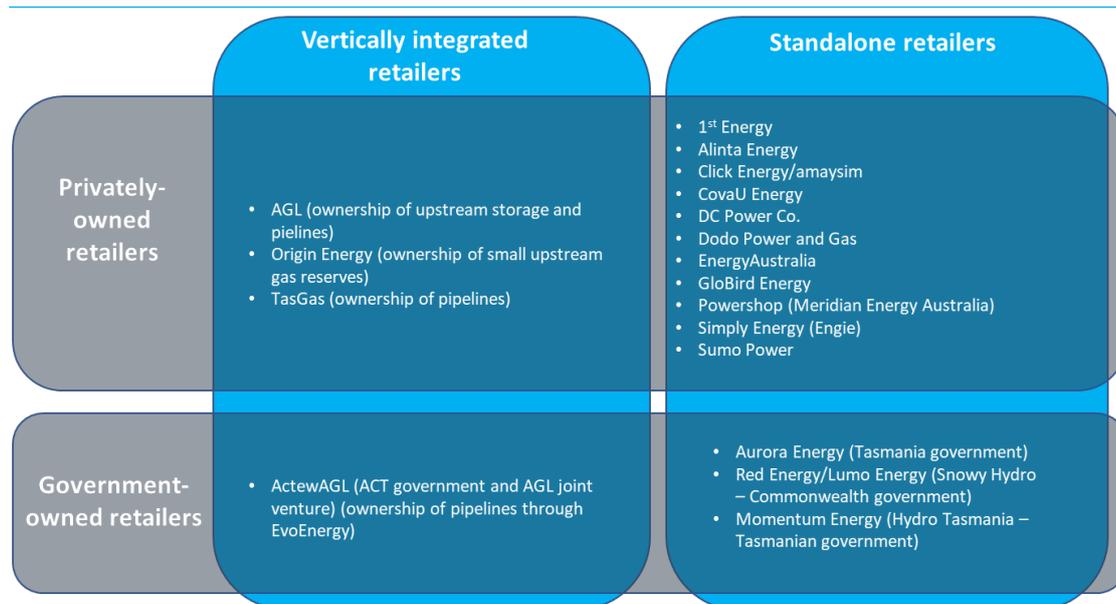
6.1.2

Structure of gas retailers

Vertical integration in gas refers to ownership of a retailer and upstream assets, such as pipelines, storage or owning a production/exploration field. Unlike in electricity, the trend in recent years has been for retailers in the gas market to divest their upstream interests with the exception of a few investment announcements in 2019.¹¹² Figure 6.2 below shows the gas retailer ownership structure. Since the 2019 Review, AGL's investment in the liquefied natural gas (LNG) import terminal in Victoria has been added to the retailer structure, reflected below. The Commission notes a trend for some gas retailers to only service embedded networks is as prevalent as it is in electricity, although embedded network gas retailers are excluded from the figure below.

¹¹² <https://www.agl.com.au/about-agl/how-we-source-energy/gas-import-project>

Figure 6.2: Gas retailer structure



Source: AEMC.

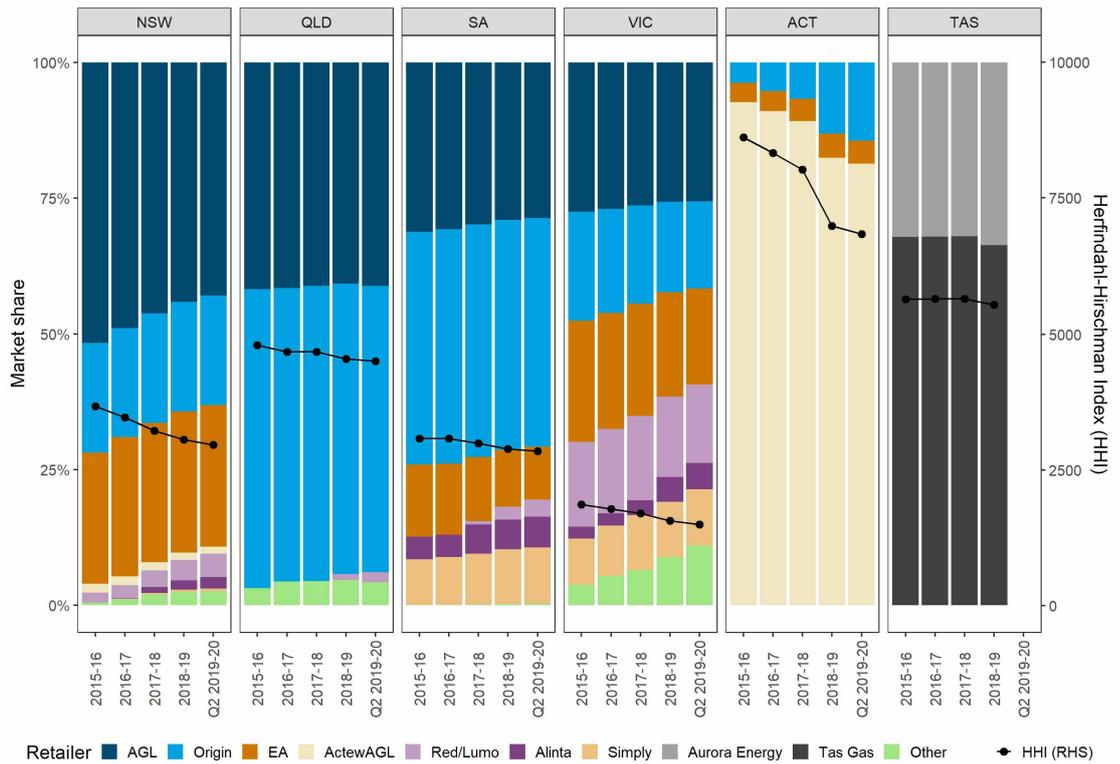
6.1.3

Market concentration and market shares in gas markets

The Herfindahl-Hirschman Index (HHI) is a commonly used measure of market concentration, as was used for electricity markets set out in Chapter 3. Figure 6.3 shows that gas market concentration has continued to steadily decrease in all jurisdictions over the past year. While the shifts in market share are less apparent than what is seen in the electricity sector, it can be seen that:

- Red/Lumo Energy continues to build its market share in all jurisdictions, except the Australian Capital Territory or Tasmania where it does not retail.
- Non-tier 1 retailers continue to gain market share from the Big 3 in New South Wales, South East Queensland, South Australia and Victoria.

Figure 6.3: Changes in market share 2015-16 to 2020



Source: AER, ESC, and AEMO, AEMC analysis

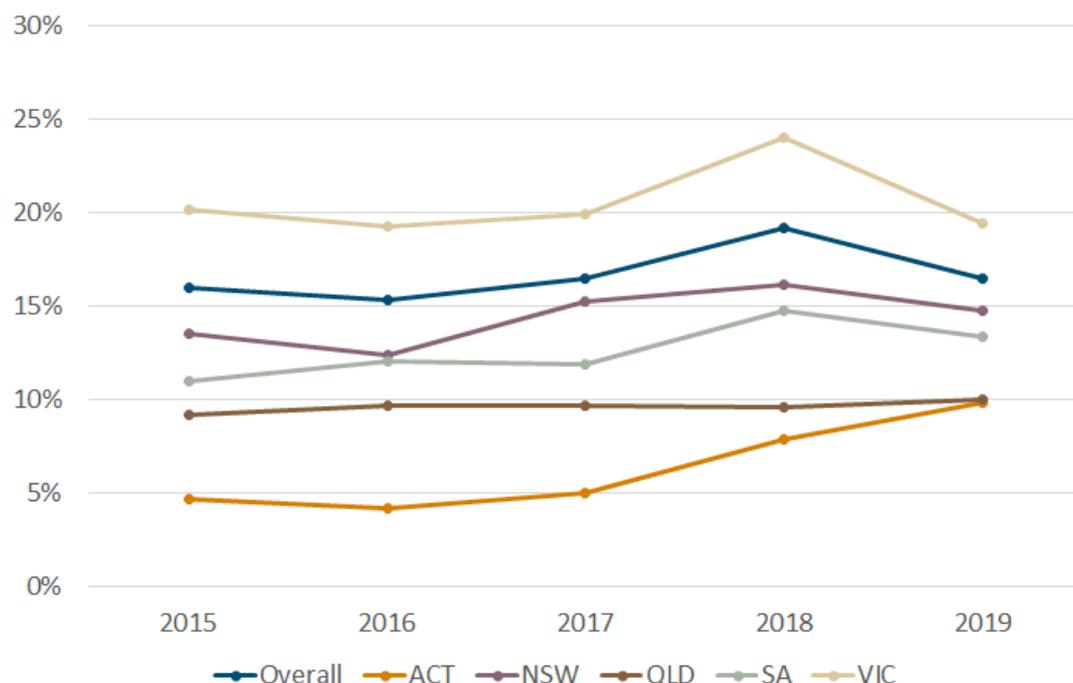
Note: This graph is based on residential customer numbers

6.1.4

Switching

The percentage of customer switching by jurisdiction is shown below in Figure 6.4

Figure 6.4: Gas switching by jurisdiction, 2015-2019



Source: AEMO, AEMC analysis.

The level of gas switching has decreased overall in the NEM by approximately three per cent. The exceptions to this are the Australian Capital Territory where switching increased by about five per cent in 2019 and South East Queensland which remained constant at a rate just under 10 per cent. The most significant fall in switching from 2018 happened in Victoria where switching levels fell almost five per cent, although Victoria still had the highest switching rate. Consumer satisfaction with gas has improved as outlined in Chapter 5, this may relate to the decrease in switching across the NEM.

6.1.5

Gas market issues

As part of the 2020 retailer survey, the Commission asked participants to make comment on the state of the gas market. There is limited commentary as some retailers interviewed do not retail any gas products, and those that do considered it as a secondary related product to electricity rather than a stand-alone service. The commentary that was provided included:

- One retailer noted that gas is primarily bundled now and there is limited room for innovation for retailers who do not wish to participate in the gas market to switch bundled customers. This is particularly the case in Victoria.
- Another noted that having a reference price for electricity has caused some confusion for small customers that primarily use gas.

6.2 Gas pricing

This section outlines the changes in residential standing and market offer annual bills for a representative consumer across the NEM-based jurisdictions from 2019 to 2020. The changes in the pricing behaviour of retailers in relation to residential energy offers can provide insight into how the market has developed over the past year. This section provides an overview for gas of the:

- methodology for calculating annual bill outcomes from standing and market offers.
- magnitude of annual bill outcome changes between 2018-19 and 2019-20.
- changes in distribution of different offer types between 2018-19 and 2019-20.
- potential savings a customer could make moving from a median standing offer to the cheapest market offer.

6.2.1 Standing offers

The number of customers on standing offers is as good a measure of engagement in the gas market as it is in the electricity market. Gas retailers must offer at least one standard retail contract at standing offer prices and these are often the default contract when a consumer does not choose a specific plan. Further details of standing offers are outlined in Chapter 4.

Table 6.1 below shows that the proportion of customers on standing offers has decreased across all jurisdictions except Tasmania. Previous analysis of standing offer customers demonstrates that there are specific groups of customers who have not responded to the availability of lower-priced market offers. The Commission expects that a small segment of the market who are on standing offers for a short period will always exist. These customers would be on a standing offer temporarily when they move house or create a new connection and have not yet selected a market offer. This segment consists of approximately two to four per cent of all residential customers.¹¹³

The rate of change of small customers on gas standing offers since 2018 has declined in all jurisdictions. Notably the Australian Capital Territory continues to have the highest proportion of small customers on standing offers despite having the largest changes in both 2018 (falling by 19 per cent) and 2019 (falling by six per cent). In 2019 the rate of change halved in all other jurisdictions except Tasmania where the AER does not publish data for.

Table 6.1: Proportion of small customer on gas standing offers in 2019

JURISDICTION	PROPORTION ON STANDING OFFER	CHANGE FORM 2018 TO 2019
Queensland*	22%	↓2%
New South Wales	12%	↓1%
Australian Capital Territory	43%	↓6%

¹¹³ https://www.aemc.gov.au/sites/default/files/2018-12/Advice%20to%20COAG%20Energy%20Council_Customer%20and%20competition%20impacts%20of%20a%20default%20offer_December%202018.pdf

JURISDICTION	PROPORTION ON STAND- ING OFFER	CHANGE FORM 2018 TO 2019
South Australia	10%	↓1%
Tasmania**		
Victoria***	6%	↓1%

Source: AER retail statistics and the ESC's Victorian Energy Market Report 2018-19. Data as of December 2019, except for Victoria which is based on 2018-19.

Note: *Gas statistics are Queensland-wide and electricity statistics are for the deregulated region (South East Queensland). **While Tasmania has multiple gas offers, the AER does not publish customer numbers. ***Victorian numbers are based on residential customers only

6.2.2 Components of residential gas bill

Residential gas offers can be broken down into their components to gain a better understanding of their structure and the effect of retail competition on residential gas bills. A significant proportion of a typical retail gas bill is determined by upstream factors. Wholesale market, transmission and distribution network costs make up the majority of the final price that customers pay. Figure 6.5 presents indicative cost components of a residential gas bill. Although the wholesale markets component has likely reduced its share of the bill more recently due to falling gas prices over the past 12 months.¹¹⁴ The wholesale price of gas is likely to remain low and may continue to decrease further due to the impacts from COVID-19. However, it should be noted that while gas spot prices are soft, contract prices have not fallen as far. There is limited publicly available data on recent bilateral contracts under which most gas is traded but conversations with industry analysts suggests that multi-year contract prices have not fallen as far as spot prices and in the longer-term are expected to be above the marginal cost of production.^{115 116 117}

The Commission expects to publish the final report for the 2020 Biennial review into liquidity in wholesale and gas pipeline trading markets in July 2020. It will assess liquidity in wholesale gas markets since the 2018 review.

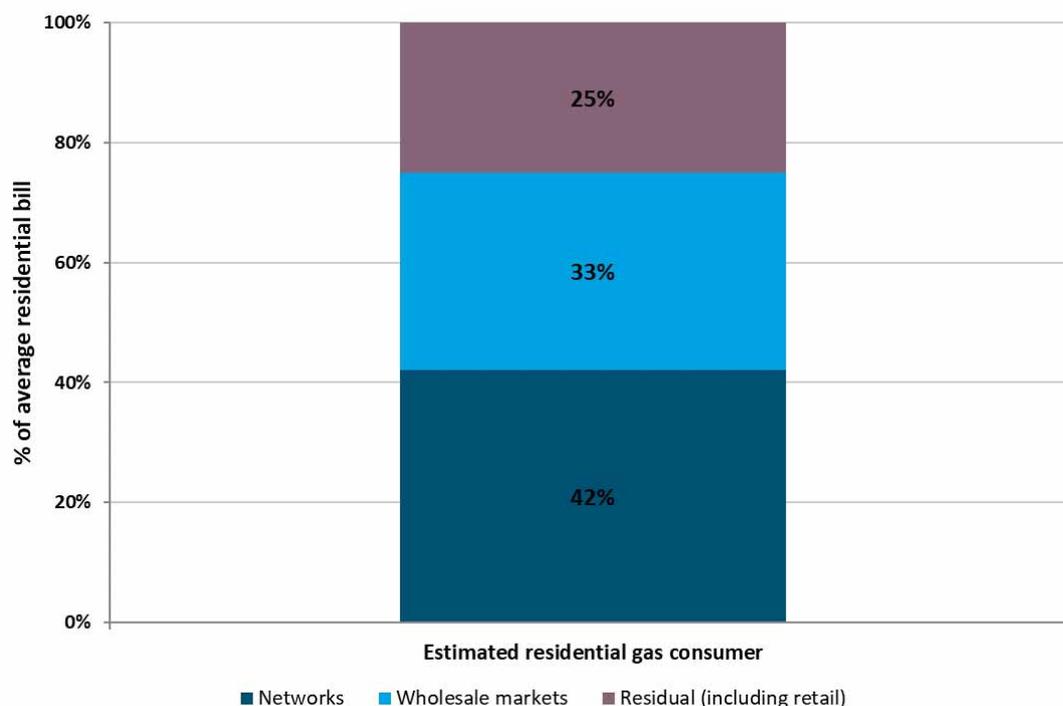
114 <https://www.aemc.gov.au/news-centre/economists-corner/economists-corner-east-coast-wholesale-gas-price-drop>

115 <https://www.aemc.gov.au/news-centre/economists-corner/whats-happening-wholesale-prices?132132>.

116 More information on recent gas contract prices is expected in future [ACCC gas inquiry reports](#) available at

117 <https://www.accc.gov.au/publications/serial-publications/gas-inquiry-2017-2025>

Figure 6.5: Indicative cost component of residential gas bill



Source: Oakley Greenwood, Gas Price Trends Review 2017.

Note: The graph represents the national average bill.

Figure 6.5 shows that on average across Australia, network (transmission and distribution pipelines) and wholesale costs make up around 75 per cent of a gas residential customer's bill. Gas retailers have a limited ability to influence these components, for instance increased wholesale spot market costs have led to higher contract prices, which in turn increases costs to retailers, particularly those that are not vertically integrated.

6.2.3

Retail tariff structure and bill methodology

Most gas tariffs adopt a fixed daily service charge with a usage charge based on a block tariff structure. Block tariffs charge different per unit prices for different consumption levels, and can be inclining or declining (where the energy charge increases or decreases) from one block to the next block, with a different charge then applying for consumption beyond that level of usage. In its simplest form, this tariff can be a single block, where one price is charged for all gas consumed.

Representative gas consumption levels are consistent with the 2019 Review. A summary of these assumptions is provided in Table 6.2 below.

Table 6.2: Representative residential consumer gas consumption per year

STATE	RESIDENTIAL GAS CONSUMPTION (MJ)
New South Wales	24,387
Australian Capital Territory	38,451
South East Queensland	7,366
South Australia	26,602
Victoria	62,528

Source: AEMC assumptions

Note: Assumptions for gas consumption are set to be the same across all gas distribution areas within each state.

6.2.4

Bill savings available from switching from standing to market offers

The analysis below shows the amounts a representative residential consumer can save by moving from the median gas standing offer to the lowest gas market offer. Table 6.3 shows that customers on the median gas standing offers can make significant savings, between 18 and 37 per cent for the representative consumer, depending on the jurisdiction, by shopping around for the lowest market offer. The benefits are particularly significant in areas with high residential gas usage such as Victoria.

Table 6.3: Proportion of small customers on standing offers in 2019

STATE (DISTRIBUTION ZONE)	RESIDENTIAL CUSTOMERS ON STANDING OFFERS (%)	2020 SAVINGS (% OF BILL)
ACT (Evoenergy)	49%	\$332 (22%)
NSW (Jemena Coastal Network)	11%	\$202 (21%)
VIC (Australian Gas Networks)	6%	\$691 (37%)
QLD (AGN - Brisbane and Riverview)	22%	\$108 (18%)
SA (AGN Metro/Barossa/Peterborough)	10%	\$219 (18%)

Source: AER retail statistics and the ESC's Victorian Energy Market Report 2018-19.

Note: Standing offer proportions are for the whole state while the savings are based on the indicated distribution zone.

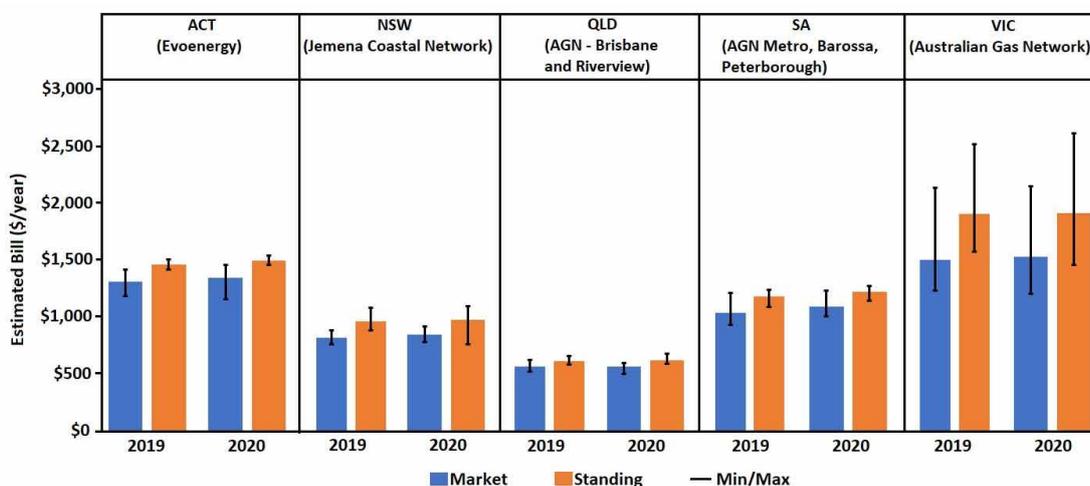
6.2.5

Changes in residential standing and market offer annual bills

Over the past year the change in the distribution of estimated gas bills was relatively small. The median standing offer gas bills increased slightly across most regions and the range of

offers was largely unchanged. However, the offered more competitive pricing than the standing offer across the different regions. Figure 6.6 shows the minimum, median and maximum bills for representative customers on gas standing and market offers. The graph shows this for the distribution area of the capital city for all NEM regions as at March 2019 and 2020. Gas bill distribution graphs for all distribution network regions are provided on the microsite.

Figure 6.6: Median residential standing and market offer gas bill



Source: Energy Made Easy (accessed on 1 March 2019 and 6 May 2020) and Victoria Energy Compare (data query for 1 March 2019 and 6 May 2020).

Figure 6.6 shows that:

- The median standing offer bill increased across all regions ranging from less than one per cent in Victoria to just over two per cent in New South Wales.
- The median market offer bill increased across all regions ranging from around two per cent in Victoria, Queensland and Australian Capital Territory to six per cent in South Australia.
- There was greater price dispersion between high and low offers in Queensland (AGN Brisbane and Riverview), New South Wales (Jemena Coastal Networks), and Victoria (Australian Gas Network) standing offers, and reduced price dispersion in Australian Capital Territory (evoenergy) and South Australia (AGN Metro, Barossa, Peterborough).
- The price dispersion of market offers grew in New South Wales, Victoria and the Australian Capital Territory. The Australian Capital Territory had the largest increase in price dispersion with both the lowest priced offer falling and the highest priced offer increasing. The price dispersion of market offers was smaller in South Australia and Queensland in 2020 compared with 2019.
- Across most regions the median offer was closer to the minimum offer in the market with a cluster of offers in the lower price range.

7

COVID-19 PANDEMIC: IMPACT ON THE RETAIL ENERGY MARKET

BOX 12: SUMMARY OF KEY FINDINGS

COVID-19 was declared a pandemic by the World Health Organisation (WHO) on 12 March 2020. The Commonwealth Government started closing borders in early February, and by 20 March all foreign nationals were banned from entering Australia. Jurisdictional governments started closing non-essential services and imposing social distancing measures in late March. The shut down has led to significant effects on energy consumers, in particular:

- Residential consumers have faced a combination of higher unemployment and underemployment, lower average incomes and income uncertainty, and have higher energy consumption due to staying home during this crisis.
- Small business consumers have often been required to enter hibernation while the shut down exists. Three quarters of small businesses' report that they expect cash flow to be reduced in coming months.

The impacts experienced by consumers flow on to retailers through an increase in late and non-payment of energy bills. Early indicators show that retailer costs and late and non-payment are increasing, which increases the risk of retailer financial distress and the potential for financial instability of the retail energy market if multiple retailers default, or one very large retailer defaults.

This chapter outlines the experience of the retail energy market, from the initial impacts on consumers, then retailers, to the potential for energy market financial instability. The Commission notes the initial response by jurisdictions through boosts to energy payment assistance schemes and the AER's Statement of Expectations putting a halt to disconnections, have reduced the immediate impacts from the pandemic on energy consumers.

Consumers

The NEM has established regulatory frameworks that govern the interaction between consumers and retailers when consumers experience financial stress. The main mechanisms include payment and hardship plans, government energy assistance payments and restrictions around disconnections for customers facing payment difficulties due to hardship. These protections are in place because energy is an essential service, and are even more important during the pandemic to support consumers in being able to work from home, have access to medical support (through services now provided virtually or via telephone), and have access to online services such as Centrelink.

Governments, the AER and the ESC have enhanced these programs to protect and assist consumers under pandemic conditions. Most notably:

- the Commonwealth government has introduced the Jobkeeper program and doubled payments under the Jobseeker program
- jurisdictional governments have increased payments and accessibility to their respective energy assistance payments
- the AER issued a statement of expectations during the pandemic which outlines that it expects retailers to not disconnect consumers for non-payment and be proactive in promoting and allowing access to payment plans and hardship programs.

The Commission supports actions taken by the AER to increase protections from disconnections under pandemic conditions. The Commission also supports the actions taken by jurisdictional governments to increase assistance to vulnerable consumers. Due to the unprecedented nature of this crisis, the Commission considers that where jurisdictions have been able to test whether the mechanisms they use to deliver assistance are robust under crisis conditions, this provides them with a useful benchmark against which to consider whether redesign of their assistance mechanisms are warranted.

Retailers

Electricity retailing is a relatively high-volume, low-margin industry, where retailers carry the credit and cash-flow risks for the entire electricity sector. A relatively small increase in the number of non-paying customers could quickly place some retailers in a position where their cash-flow is negative (that is, where their revenue falls short of their expenses).

The combination of the increase in consumer financial distress and the increased regulatory obligations to continue to supply customers with electricity may place significant financial stress on energy retailers. The level of stress individual retailers face will depend on a combination of factors, including underlying profitability prior to the crisis, their corporate and financial structure, and their hedging strategy. The Commission's high-level scenario modelling indicates that the combination of retailers bearing the cash flow risk for the entire supply chain and retailing being a high volume, low margin business, means retailers are particularly exposed to increases in late and non-payment by customers.

The Commission considers that cash-flow and non-payment risks should generally rest with retailers as they are best placed to manage them. However, the unprecedented circumstances presented by the COVID-19 pandemic may justify providing assistance to retailers to manage cash flow risks that are exceptions to the usual efficient allocation of cash-flow risk within the sector. In particular, the AER's Statement of Expectations of energy businesses expects retailers to continue to supply non-paying customers to a greater degree than could have been foreseen by retailers before the crisis.

Governments and the ENA have reduced the size of the retailers' cashflow burden through the increase in financial assistance and the ENA relief package respectively. The relief package provides direct support for affected small business customers and small retailers, and allows larger retailers to defer network charges incurred up until 1 July 2020 for pandemic-affected customers.

There are also two rule change requests that may further reduce the cash flow burden on retailers. The AER submitted a rule change request to the AEMC to extend the due date for retailers to pay electricity network charges in respect of electricity hardship customers and customers on other forms of deferred payment arrangements due to COVID-19. The Commission is considering this rule change request, as well the rule change request submitted by AEMO to delay five minute settlement (5MS) as a result of the pandemic.

Action 1: The AEMC to review the effectiveness of cash flow burden sharing measures. The Commission will consider the effectiveness of all measures put in place in next year's Retail energy competition review.

Retail market financial stability

With retailers facing financial stress under pandemic conditions, the Commission has assessed the adequacy of the existing market and regulatory framework to deal with the potential for retailer failures.

In order to preserve continuity of supply to customers following the insolvency of a retailer, the National Energy Retail Law (NERL) sets out arrangements which provide for the immediate transfer of the customers of a failing retailer to one or more other retailers that act as a "Retailer of Last Resort" (ROLR). This mechanism has been invoked in the past for the failure of a few small retailers. It has operated smoothly without consequences for the wider market. However, there is the risk of financial contagion from the failure of a large retailer or a number of smaller retailers over a relatively short period, potentially resulting in cascading insolvency across the sector.

The Commission has used the extensive analysis it previously conducted in the NEM financial market resilience review and updated it for the specific conditions under the pandemic. These specific concerns relate to that the failure of a retailer or retailers with a large number of customers, due to a significant increase in the number of customers who are deferring or unable to pay their bills. This may:

- heighten risk of the existing ROLR arrangements triggering financial contagion across the sector through the transfer of non-paying customers to retailers who already have a growing number of non-paying customers
- result in both paying and non-paying customers being automatically placed on the receiving retailer's standing or default offer contracts, when experience shows that it will take many years for customers to shift onto lower priced market offer contracts
- reduce competitive pressure on prices generally through the loss of second and third tier retailers who have over recent years been increasing their market shares at the expense of the "Big 3".

To address these risks the Commission considers that changes should be made to improve ROLR scheme outcomes for small customers and to enhance the financial market stability of the NEM.

Recommendation 1: Remove the ROLR requirement for small customers to be placed on the

default offer. To improve consumer outcomes, if a ROLR event occurs, the Commission recommends that the ROLR regime is amended to remove the requirement for the customers of a failed retailer to be transferred on to the standard retail contract of the designated ROLR. The Commission considers that registered ROLRs should have the ability to submit, for the AER's approval, a market offer to be used for ROLR customers. This is particularly important because the transfer of customers onto default offers, instead of lower priced market offers, may lead to higher numbers of electricity customers in financial stress seeking access to payment plans and hardship arrangements.

Recommendation 2: NEM financial market resilience review - Recommended changes to the existing Retailer of Last Resort scheme. The Commission recommends that the ROLR regime be amended, as previously proposed by the NEM financial market resilience review, to reduce the impact of increased cash flow and/or credit support requirements. Those changes included:

1. greater clarity of cost recovery arrangements to give the ROLR greater certainty that it can quickly recover its costs
2. delayed designation of ROLRs: the AER should be able to delay the designation of a ROLR by 24 hours following a ROLR event, which gives the AER greater ability to appoint multiple ROLRs if appropriate.
3. delayed requirements for the ROLR to provide credit support to AEMO associated with the additional customers.

Recommendation 3: The ROLR regime to be removed from the NERL and included in the NERR. In order to make changes to the ROLR framework included above and over time, the Commission considers that rather than amending the NERL to make the recommended changes, the NERL should be amended to remove the ROLR provisions from it, and the provisions should be included in the NERR through rule changes.

Recommendation 4: COAG Energy Council to consider short term market stability measures. Throughout this crisis, the market bodies have provided strategic information and advice to allow the COAG Energy Council to make required decisions to ensure financial stability. This has contributed to the development of short term response measures across the industry. While these measures will make a major contribution to reducing the risk of financial contagion and poor market structure and consumer outcomes, that may occur under the current ROLR scheme, it cannot be known ex ante if they will by themselves be effective. Given this, it is important the COAG Energy Council consider appropriate short term measures to maintain market stability.

Recommendation 5: Advanced notice of retailer distress. The Commission recommends that the AER consider whether a rule change could provide it with an additional ability to gather information to identify risks to retailer financial stability, and if so, submit a rule change request. If submitted, this rule change would likely formalise and build on information the AER is currently collecting and providing to COAG Energy Council and SCO on a monthly basis. The AER may need to consider whether increased reporting should be ongoing or only

when triggered by exceptional circumstances which create heightened risks to market stability.

Embedded networks

The Commission notes the impacts from the pandemic have highlighted the lack of consumer protections for embedded network customers as they do not receive the same standard of consumer protection as all other small consumers. The recommendations outlined in the Commission's 2019 review *Updating the regulatory frameworks for embedded networks* would fix this. However, this is not an option in the short term because the reforms are significant.

Recommendation 6: The Commission recommends that the COAG Energy Council, market bodies and jurisdictional government and regulatory bodies implement the comprehensive package of changes to laws, rules and regulations to protect consumers and improve choice in embedded networks, as recommended in the embedded networks review completed in 2019.

The COVID-19 pandemic (the pandemic) was announced by the World Health Organisation (WHO) on 12 March 2020.¹¹⁸ The Commonwealth Government started closing borders to foreign nationals from China in early February, and by 20 March all foreign nationals were banned from entering Australia.¹¹⁹ Jurisdictional governments started closing non-essential businesses and services, and imposing social distancing measures in late March. While schools were not closed, governments encouraged that all school students that could stay home, should stay home and this was generally adhered to.¹²⁰

The restrictions and sudden decline in economic activity have led to residential consumers facing a combination of higher unemployment and underemployment, lower average incomes and income uncertainty. Many small business consumers have been required to enter hibernation while the shut down exists. The ABS reports that almost three quarters of small businesses cash flow has reduced.

Retailers have also faced direct effects from the pandemic. For example, many have needed to move from large international call centres to remote working arrangements. These changes, at least in the short-term are likely to increase retailers costs.

This chapter outlines how the pandemic has and may continue to impact consumers and retailers in the retail energy market. Sections 7.1 to 7.3 outline the current and potential impacts to customers, retailers, and financial stability of the market in the short-term. They do this through analysing the:

- observed and expected impacts
- existing regulatory/policy frameworks for dealing with these impacts

118 <https://twitter.com/WHO/status/1237777021742338049>

119 <https://www.pm.gov.au/media/border-restrictions>

120 <https://www.pm.gov.au/media/update-coronavirus-measures-270320>

- new measures to help mitigate these impacts
- analysis, recommendations and actions to further mitigate existing or potential impacts.

Section 7.4 then outlines the Commission's consideration of similar issues for embedded networks and the significant consumer protection gaps that exist for these consumers. Section 7.5 summarises the analysis, recommendations and actions into first, second and third lines of defence for protecting consumers and resilience of the retail market. Figure 7.1 provides an overview of our approach to the analysis and recommendations made.

Figure 7.1. Overview of the consumer and retail energy market experience during COVID-19

**COVID-19:
baseline retail
market
measurements**

Chapters 2, 3, 4, 5 and 6 of this report look at the retail energy market environment, structure, conduct, and performance for retailers and consumers over the past 12 months. The analysis in these chapters is based on market data collected prior to the impacts and restrictions imposed as a result on COVID-19. These chapters will form the base for future reviews to assess the impacts of COVID-19 on the retail energy market.

1. Customer experience

Customers have difficulty paying energy bill and contact their retailer



2. Retailer impacts

Retailers have increased costs and customer debt, and reduced revenue



3. Retail market financial stability

Retailers may default on payments for network and wholesale costs

Impacts	Existing framework	New measures announced	Analysis & Recommendations
<p>Consumer in financial distress experience:</p> <ul style="list-style-type: none"> Loss of employment / reduced income Increased energy usage at home Shut down of businesses. 	<p><u>Hardship framework</u>, assists customers with difficulties paying their energy bills.</p> <p><u>Existing government payment assistance schemes</u>.</p>	<p><u>Commonwealth and Jurisdictions respond</u> with boosts to welfare and government payment assistance schemes.</p> <p><u>AER's 'Statement of Expectations'</u>, including: Do not disconnect any small customer without their permission before 31 July.</p>	<p>The Commission supports the actions taken by the AER and jurisdictional governments to increase assistance to vulnerable consumers.</p> <p>Recommendation 6: Protecting small customers in embedded networks.</p>
<p>Increase volume of customers seeking hardship status.</p> <p><u>Resilience to impacts will differ between retailers:</u></p> <ul style="list-style-type: none"> Hedging strategy may leave retailers over-hedged Profitability prior to pandemic Corporate structure and cash flow. 	<p><u>Retailer payment processes</u>. Retailers pay networks and wholesales costs before receiving payment from customers. Retailers wear 100% of risk of cash flow and customer non-payment.</p>	<p><u>ENA's support package</u>, including rebate and defer network charges for COVID-19 impacted residential and small business consumers.</p> <p><u>AER rule change request</u>. Defer network charges for six months.</p> <p><u>AEMO rule change request</u>. Defer 5MS implementation.</p>	<p>In assessing these rule change requests, the Commission will consider the analysis on risk allocation, financial assistance measures, the ENA relief package and the AER's Statement of Expectations.</p> <p>Action 1: For the AEMC to review the effectiveness of cash flow burden sharing.</p>
<p><u>Risks for participants:</u></p> <ul style="list-style-type: none"> Cash flow risk Settlement risk Market risk Credit risk. <p>Financial interdependencies in the NEM.</p> <p>Greater risk of contagion spreading among retailers.</p>	<p><u>Retailer of last resort (ROLR) framework</u> requires designated ROLRs to supply electricity to customers from failed retailers.</p>	<p><u>Advanced notice of retailer distress</u>. The AER has significantly increased the frequency with which it collects information on the number of customers on payment plans and hardship arrangements and the level of customer debt.</p> <p>Recommendation 4: COAG Energy Council to consider short term market stability measures.</p> <p>Recommendation 5: Advanced notice of retailer distress.</p>	<p>Recommendation 1: Remove requirement for small customers of a failed retailer to be placed on the default offer of the ROLR.</p> <p>Recommendation 2: NEM financial market resilience review - Recommended changes to the existing Retailer of Last Resort scheme.</p> <p>Recommendation 3: The ROLR regime to be removed from the NERL and included in the NERR.</p>

Chapters 2 to 6 of this report look at the retail energy market environment, structure, conduct, and performance for retailers and consumers throughout 2019. The observations and analysis in these chapters are based on market data collected prior to the impacts and restrictions imposed as a result on the pandemic. These provide a baseline for this analysis and will form the basis for future reviews to assess the impacts of the pandemic on the retail energy market. In particular, retail market measures that will be used to assess impacts of this crisis include:

- number of active retailers in jurisdictions and across the NEM (see Chapter 3 for baseline data)
- changes in market share of Tier 1 retailers (see Chapter 3 for baseline data)
- pricing behaviour and product innovation by retailers (see Chapter 4 for baseline data)
- number of residential consumers on and exiting hardship programs (see Chapter 5 for baseline data)
- number of residential consumers disconnected (see Chapter 5 for baseline data).

The Commission notes the observations and analysis in this chapter were finalised in early June 2020. Given the speed at which the pandemic and associated impacts continue to evolve, the Commission encourages policy-makers to take into account changes in the economic climate and retail market dynamics since June 2020 when consideration is given to the recommendations made in this chapter.

7.1 Consumer experience

This section outlines the:

- impact of the pandemic on consumers
- existing regulatory framework for energy consumers facing financial stress
- new measures that have been introduced to help consumers pay their energy bills
- Commission's proposed reforms to address the short term impacts from the pandemic and better equip the retail market to meet consumers' needs in future crises.

7.1.1 Impacts on consumers

Loss of employment and reduced household income

Millions of Australians' incomes have been affected by losing their job, pay reductions or reduced work hours, or an inability to work due to needing to care for family members. In mid-April the Commonwealth Treasury forecast unemployment to increase from 5.2 per cent at the beginning of March to 10 per cent by June.¹²¹ In April, the official unemployment rate increased to 6.2 per cent, or an additional 104,500 unemployed people (looking for work). This figure does not account for the other almost 500,000 people who dropped out of the work force. In addition, the underemployment rate increased to almost 14 per cent, its highest level on record.¹²² Other institutions have estimated unemployment to be higher. For

¹²¹ Treasurer of the Commonwealth of Australia, JobKeeper payment supporting millions of jobs, 14 April 2020, accessed at: <https://ministers.treasury.gov.au/ministers/josh-frydenberg-2018/media-releases/jobkeeper-payment-supporting-millions-jobs>.

example, the Grattan Institute estimated the rate would likely sit between 14 and 26 per cent.¹²³ The variation in these estimates underlines the uncertainty of estimating the economic and employment impact of the crisis.

For those who remain in employment, incomes are also being impacted by the pandemic. A study by Monash University noted that prior to the pandemic 81 per cent of people surveyed reported an average weekly income of \$500 or more. Post-pandemic, the same people reported large drops in their income, with just under 29 per cent reporting more than \$500 of weekly income.¹²⁴

Governments have responded rapidly with income and payment assistance support measures. Each of the state governments has developed a number of mechanisms that will assist consumers in financial distress to pay their energy bills. The Commonwealth Government has doubled Jobseeker payments to \$1,100 per fortnight and introduced Jobkeeper payments of \$1,500 per fortnight.

Despite the assistance, many households that were previously on full time employment may experience financial hardship for the foreseeable future through increased job insecurity, difficulty finding new jobs and reduced income. This increased sense of insecurity may influence a consumer's ability and willingness to pay energy bills.

Small business consumers

Small business consumers have also been affected significantly by the pandemic. Social distancing restrictions imposed by governments have impacted small business across various industries. Almost three quarters of Australian businesses (72 per cent) reported that reduced cash flow is expected to have an adverse impact on business over the next two months.¹²⁵ While wages for certain employees are covered by the JobKeeper allowance, businesses must also consider a range of overhead costs such as servicing loan payments, payments associated with utilities, insurance, rent and equipment. In recognition of these challenges, the members of the Australian Banking Association announced a loan repayment deferral of up to six months for affected small businesses.¹²⁶

Changes in energy demand

Victorian distribution businesses reported that overall energy demand has decreased by nearly two per cent when compared to energy demand on the 1 April 15 May period of 2019, as shown in Figure 7.2. The businesses further noted that, across all distribution zones, energy demand:¹²⁷

122 ABC, Coronavirus has hit Australia's job market harder than unemployment figures suggest, 14 May 2020, accessed at: <https://www.abc.net.au/news/2020-05-14/coronavirus-australia-job-market-unemployment-figures-april/12247990>

123 Grattan Institute, Shutdown: estimating the COVID-19 employment shock, April 2020, p. 3.

124 Monash University, Monash COVID-19 health and work study, April 28 2020, accessed at <https://theconversation.com/90-out-of-work-with-one-weeks-notice-these-8-charts-show-the-unemployment-impacts-of-coronavirus-in-australia-136946>

125 <https://www.abs.gov.au/ausstats/abs%40.nsf/mediarbyond%20the%20releasesbyCatalogue/49F8475B31112582CA25853600764041?OpenDocument>

126 ABS, media release, Businesses expect ongoing COVID-19 impact, 4 May 2020, accessed at: https://mcsusercontent.com/59ee38dd9903e13072a4eb366/files/783866a0-fbdc-4703-adf2-e53023f48652/ABA_Media_Release_Banks_announce_Small_Business_Relief_Package.pdf.pdf

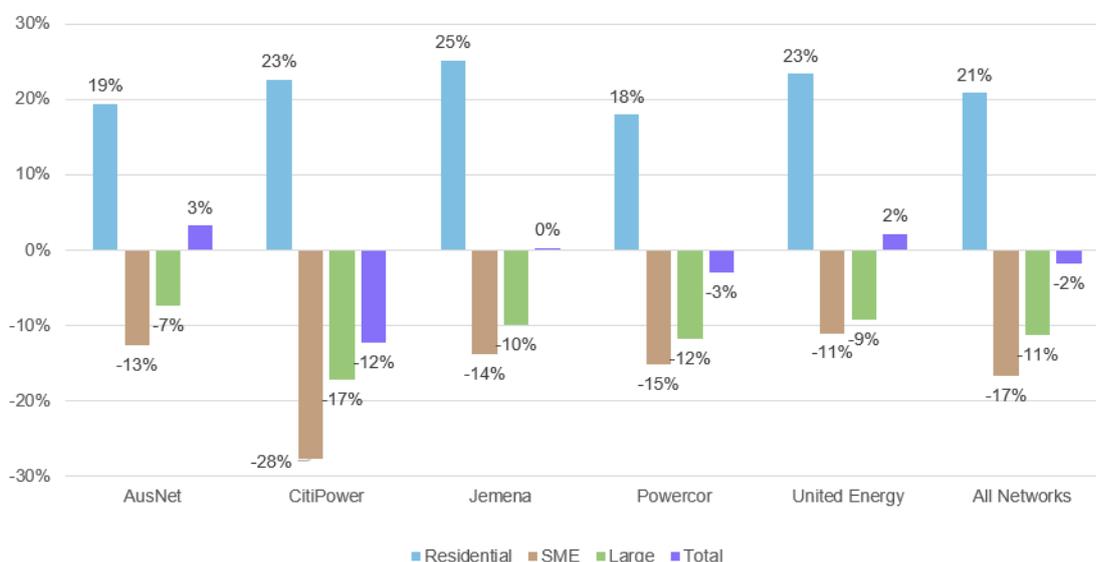
127 Victorian DNSPs, May 2020.

- decreased by 17 per cent for small businesses
- decreased by 11 per cent for large consumers
- increased by 21 per cent for residential consumers.

The increase in residential demand is likely attributed to government policies aimed at minimising social interaction by requiring consumers to remain at home, and by the increase in the number of people working from home. Similarly, restrictions to non-essential businesses such as cafes and restaurants have likely contributed to the reduction in small business demand.

While the full impact of restrictions is unlikely to be clear in the short-term, increased residential energy usage will likely lead to an increase in residential energy bills. PIAC has estimated that bills may increase by \$200 a month during winter months for certain consumers.¹²⁸ Conversely, restrictions placed on businesses and workplaces have seen commercial demand reduce by seven per cent.¹²⁹

Figure 7.2: Comparison of change in demand in Victoria: 1 April to 15 May 2019 and 2020



Source: Victorian DNSPs May 2020

Retail prices before and during the pandemic

The Commission has compared generally available offers by retailers between January 2020, before the crisis, and April 2020, when the restrictions and pandemic lockdown rules were at

¹²⁸ PIAC, Community and consumer organisation joint proposal: National COVID-19 energy hardship relief package, March 2020, accessed at: <https://piac.asn.au/wp-content/uploads/2020/03/COVID-19-National-Energy-Hardship-Relief-Package.pdf>.

¹²⁹ ENA, Commercial down v residential up: COVID-19's electricity impact, 16 April 2020, accessed at: <https://www.energynetworks.com.au/news/energy-insider/2020-energy-insider/commercial-down-v-residential-up-covid-19s-electricity-impact/>

their strictest in Australia. Commission analysis shows that there has been little change in minimum and median offer across the distribution areas between January and April. However, given the time needed for retailers to develop and implement prices, retailers may not have reflected impacts from the pandemic in their prices yet. The Commission notes that retailers have to determine their prices in a complex environment and that on 1 July many retailers will reset prices to adjust for changes in network prices and incorporate adjustments to standing offers from changes to the DMO.¹³⁰ It will be important to continue to monitor prices in the future to assess the impact of the pandemic on consumers and retailers.

7.1.2 Existing framework for consumers facing financial stress

Energy is an essential service. Energy consumers facing financial distress are provided with assistance through both government schemes and requirements on industry.

Concession and rebate schemes (pre-COVID-19)

As part of their ongoing support for consumers in financial difficulty, jurisdictional governments provide both concessions and emergency bill assistance to residents. Table 7.1 provides an overview of existing forms of emergency bill assistance offered by jurisdictional governments, and new bill assistance measures introduced since the onset of the pandemic.

¹³⁰ The VDO reset will next occur on 1 January 2021.

Table 7.1: Payment assistance schemes before and during the pandemic

JURISDICTION	PRE-COVID MEASURE	ELIGIBILITY	COVID RESPONSE MEASURE	OUTCOMES
<p>Australian Capital Territory</p>	<p>ActewAGL’s Energy Support Fund provides vouchers to help cover energy bills. These vouchers are distributed by community groups that provide emergency relief services. The fund includes contributions of \$250,000 by both the ACT Government and ActewAGL.</p>	<p>Eligible households include Centrelink Pensioner Concession Card holders, Low Income Health Care Card holders, Veteran’s Affairs Pensioner Concession Card holders or Gold Card holders.</p>	<p>The ACT Utilities Hardship Fund has been established to support households during the pandemic, and is an evolution of the Energy Support Fund model, expanded to other retailers.</p> <p>The Fund provides \$250,000 of ACT Government funding to retailers to support electricity consumers in the ACT who may be struggling to pay their bills as a result of the COVID-19 pandemic. Retailers who have agreed to participate will receive a pro rata portion of the Fund, which they will be required to match with a contribution of equal value.</p> <p>Households supported by the Utilities Hardship Fund rebate will receive either a \$100 voucher for their electricity bill, or a \$100 rebate (to be determined by the retailer).</p> <p>Eligible consumers include:</p>	<p>Information on uptake of the hardship support was not available at the time of finalising this report.</p>

JURISDICTION	PRE-COVID MEASURE	ELIGIBILITY	COVID RESPONSE MEASURE	OUTCOMES
			<ul style="list-style-type: none"> • Centrelink Pensioner Concession Card holders (PCC); • Centrelink Low Income Health Care Card holders (HCC); • Veteran’s Affairs Pensioner Concession Card or Gold Card Holders; and • Those under retailer hardship programs as defined by the National Energy Retail Law. <p>Qualifying consumers must also be ACT residents. Vouchers/rebates are available one per person, per account, per year.</p>	
New South Wales	<p>Energy Accounts Payment Assistance (EAPA) Scheme is for consumers facing a short term financial crisis or emergency. A participating non-Government organisation EAPA provider assesses a consumer for eligibility to receive up to \$300 per energy type per transaction (electricity and gas), no more than twice a Financial Year.</p>	<p>Consumers facing financial hardship due to a crisis or emergency situation can apply for EAPA voucher assistance. This hardship may be caused by a range or combination of factors, including:</p> <ul style="list-style-type: none"> • loss of income • higher than expected electricity/gas bill 	<p>Small business assistance package: \$750 million fund that will disburse grants of up to \$10,000. The funds must be used to meet unavoidable business costs such as utilities.</p> <p>Residential consumers: \$30 million to expand funding for the EAPA Scheme and temporarily increase the maximum EAPA transaction value from \$300 to \$400</p> <p>To meet increased demand for the</p>	<p>In 2018/19 56,000 consumers received EAPA vouchers in NSW.</p> <p>From 20 April to 31 May 2020 the NSW Government has received over 24,500 applications from consumers to be assessed for EAPA vouchers.</p>

JURISDICTION	PRE-COVID MEASURE	ELIGIBILITY	COVID RESPONSE MEASURE	OUTCOMES
		<ul style="list-style-type: none"> illness in the family unexpected expenses or bills. 	EAPA Scheme due to COVID-19, the NSW Government created a webform for consumers to apply to be assessed for EAPA vouchers. This included a new NSW Government EAPA Assessment team.	
Queensland	The Home Energy Emergency Assistance Scheme (HEEAS) is one-off emergency assistance for Queensland households experiencing problems paying their electricity or reticulated natural gas bills as a result of an unforeseen emergency or a short-term financial crisis. It provides up to \$720 once every two years.	<p>Eligible consumers must be responsible for paying the energy bills and meet one of the following:</p> <ul style="list-style-type: none"> hold a current concession card, or have an income equal to or less than the Australian Government's maximum income rate for part-age pensioners. be part of an energy retailer's hardship program or payment plan 	<p>Residential consumers: \$400 million Household Relief package which provides residential consumers with a \$200 utility rebate on their electricity bill to assist with their household costs in 2020.</p> <p>Small business: \$100 million Power Bill Relief package which provides small businesses (i.e. those consuming less than 100MWh per annum) with a \$500 rebate on their electricity bill to assist with their energy costs in 2020.</p> <p>This assistance is part of the Queensland Government's \$4 billion package to support Queensland workers, households and businesses during COVID-19.</p>	<p>Approximately 10,200 consumers access the HEEAS in 2019. This is expected to be higher with the impacts from the pandemic.</p> <p>Approximately two million households will receive the \$200 rebate, and 200,000 small businesses will receive the \$500 rebate.</p>
South Australia	The Emergency Electricity Payment Scheme (EEPS)	Consumers facing financial hardship due to a crisis or	One off boost of up to \$500 and bring forward the 2020-21 Cost of Living	Information on uptake of the hardship

JURISDICTION	PRE-COVID MEASURE	ELIGIBILITY	COVID RESPONSE MEASURE	OUTCOMES
	provides assistance to households in a financial crisis who are unable to pay their electricity debt. A payment of up to \$400 is provided to low-income households. Applicants are entitled to apply for an emergency electricity payment once every three years after the date of their last EEPS payment.	emergency situation can apply for EEPS. Generally these are consumers who have been disconnected or are at risk of disconnection. Eligible consumers need to visit a financial counsellor in order to be assessed.	<p>Concession for households who are receiving the Centrelink JobSeeker Payment.</p> <p>Eligible home-owners will have their 2020-21 payment of \$215 increased to \$715. Eligible tenants will have their payment increased to \$608.</p>	support was not available at the time of finalising this report.
Tasmania	No pre-pandemic emergency energy bill assistance available.		<p>A cap on electricity prices for 2020-21.</p> <p>Waiving of the payment of the first quarterly electricity bill, or the first three monthly electricity bills, issued on or after 1 April 2020 for small business consumers, in respect of energy consumed in the respective billing period.</p> <p>All consumers on Regulated Tariffs under the Standing Offer Framework are eligible for this assistance.</p> <p>Small business consumers on Tariff 22, 94, 82 or 75 under the Standing Offer Framework (including those small businesses on market contracts</p>	<p>All residential customers (approximately 250,000) will have their prices capped.</p> <p>Approximately 34,000 Tasmania small business customers will be eligible for the assistance package.</p> <p>Aurora announced the Customer Support Fund on 27 March 2020. At the end of May nearly two hundred Aurora</p>

JURISDICTION	PRE-COVID MEASURE	ELIGIBILITY	COVID RESPONSE MEASURE	OUTCOMES
			<p>that could access those tariffs), and small business consumers on King and Flinders Islands.</p> <p>Aurora Energy* announced a \$5 million Customer Support Fund specifically to help residential and small business customers impacted by the pandemic through a range of measures.</p>	<p>Energy customers had accessed the fund.</p>
	<p>Payment Difficulty Framework (PDF):</p> <p>Energy retailers must offer assistance to customers struggling to pay their energy bills. Support options include payment plans, putting account arrears on hold while customers work towards paying for their usage, and extending bill due dates.</p> <p>Utility Relief Grant Scheme (URGS):</p> <p>URGS is a grant that helps to pay an electricity, gas or water bill that is overdue due to a</p>	<p>Households experiencing hardship due to a sudden loss of income, family violence, high unexpected expenses for essential items or if the cost of shelter is more than 30% of household income.</p> <p>URGS is available to both eligible concession card holders and low-income households without a concession card.</p> <p>Asylum seekers without access to a Commonwealth concession card are eligible for Victoria's Utility Relief</p>	<p>Residential package:</p> <p>A \$3.7 million funding package to help social service organisations connect Victorians with available utility bill hardship support. Support will include training frontline support services, funding for financial counsellors, and developing an energy brokerage program.</p> <p>Small business support fund:</p> <p>A \$500 million Business Support Fund to assist small to medium businesses impacted by the pandemic. Funding of \$10,000 per business is available and will be allocated through a grant process. Funds can be used for</p>	<p>There is a general expectation that hardship numbers may increase in the coming months, a slight increase in the number of consumers enquiring about energy assistance has been reported,</p>

JURISDICTION	PRE-COVID MEASURE	ELIGIBILITY	COVID RESPONSE MEASURE	OUTCOMES
	temporary financial crisis. The amount of the grant is based on the amount the consumer owes at the time of application. Consumers can receive a maximum of \$650 on each utility type in a two-year period. (Note this is double for customers with electricity as a single energy source)	Grant Scheme, provided they meet low-income and hardship requirement	meeting business costs, including utilities.	

Source: Jurisdictional governments, ACT: <https://www.covid19.act.gov.au/economic-support/economic-survival-package/families-and-households>; NSW: <https://energysaver.nsw.gov.au/households/rebates-and-discounts/help-for-households-facing-energy-bill-stress>; <https://www.ewon.com.au/page/customer-resources/help-paying-bills/eapa-vouchers>; <https://www.treasury.nsw.gov.au/sites/default/files/2020-04/Gladys%20Berejiklian%20Dominic%20Perrottet%20Damien%20Tudehope%20-%20%241000%20grants%20to%20provide%20fast%20relief%20for%20NSW%20small%20businesses%20battling%20COVID-19.pdf> and <http://treasury.nsw.gov.au/sites/default/files/2020-05/Matt%20Kean%20-%20Dominic%20Perrottet%20-%20med%20rel%20-%20NSW%20Government%20bill%20relief%20for%20energy%20customers.pdf>; QLD: <https://www.qld.gov.au/community/cost-of-living-support/concessions/energy-concessions/home-energy-emergency-assistance-scheme>; https://www.qld.gov.au/_data/assets/pdf_file/0023/122099/electricity-relief-qanda.pdf25; South Australia: <https://www.sa.gov.au/topics/care-and-support/concessions-and-grants/concessions/cost-of-living-concessions>; Tasmania: http://www.premier.tas.gov.au/releases/unprecedented_new_social_and_economic_support_package_released; Victoria: <https://services.dhhs.vic.gov.au/utility-relief-grant-scheme>; <https://www.premier.vic.gov.au/targeted-support-for-victorians-struggling-with-energy-bills/.30>; <https://www.business.vic.gov.au/support-for-your-business/grants-and-assistance/economic-survival-and-jobs-package>.

Note: Jurisdictional governments provide a number of concession schemes for customers. This table summarises only those schemes for customers in financial stress. * Aurora Energy's customer support fund has been included due to being wholly owned by the Tasmania Government and having more than 99% of the market share.

Hardship framework

NECF jurisdictions

Under the NERL and NERR, retailers are required to provide support and assistance to their small consumers who are experiencing difficulty paying their energy bills and are in financial difficulty due to hardship. Consumer protections that are likely to become particularly important during the pandemic include:

- Information requirements: retailers must provide, to hardship consumers or other consumers experiencing payment difficulties, information about the availability of government funded energy rebates, concessions or relief schemes.¹³¹
- Payment plans: a retailer must offer and apply payment plans for hardship consumers and consumers experiencing payment difficulties. A retailer must comply with the requirements in the NERR on how to offer and when to offer payment plans.¹³² A payment plan should have regard to a consumer's capacity to pay, any amount they owe, and how much energy they are expected to use over the next year.¹³³
- Debt recovery: retailers must not commence proceedings for recovery of a debt if the consumer is complying with a payment plan or other payment arrangement or the retailer has failed to comply with the requirements of its hardship policy, payment plans or assistance for consumers experiencing hardship or payment difficulties.¹³⁴

Figure 7.3 shows the two pathways under the NERR for disconnection of a consumer who struggles to pay their bill.

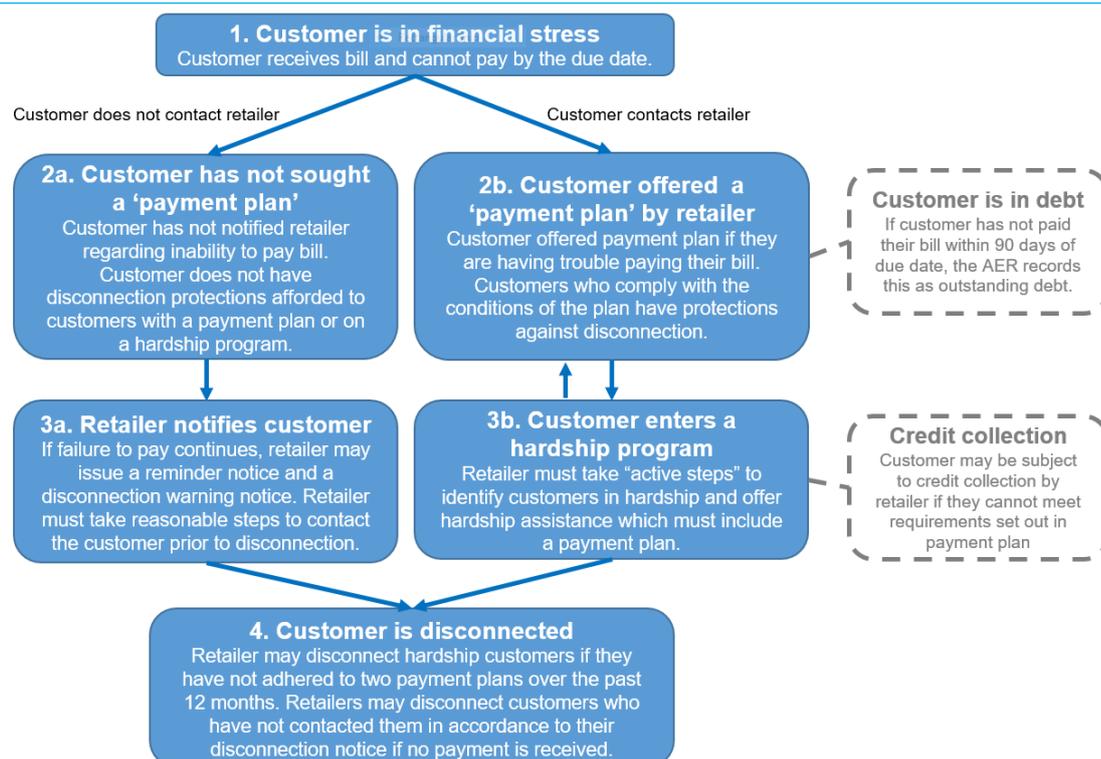
131 NERL section 44; NERR rule 25.

132 NERL section 50.

133 AER, Sustainable payment plans: A good practice framework for assessing consumers' capacity to pay, July 2016, available at: <https://www.aer.gov.au/system/files/AER%20Sustainable%20payment%20plans%20framework%20-%20Version%201%20-%20July%202016.pdf>

134 NERL section 51.

Figure 7.3: Disconnection pathway for consumers experiencing financial distress



Source: AEMC, based on the NERR. Note: Consumers that fail to contact retailers may experience a quicker pathway to disconnection than those that engage with retailers because of the additional protections available to consumers in payment plan and hardship programs. However, the AER's Statement of Expectations have in practice meant that no consumer will be disconnected for non-payment up until 31 July 2020, and potentially longer.

The NERL specifically requires energy retailers to develop and maintain a customer hardship policy for identifying and assisting consumers with difficulties paying their energy bills due to hardship. Under the NERL, the AER is responsible for monitoring, investigation and enforcing the existing NERR requirements. The AER is required to develop a binding and enforceable customer hardship policy guideline.¹³⁵ On 29 March 2019, the AER released its new binding Customer hardship policy guideline. As of 2 October 2019, all retailers had updated their hardship policies to bring them in line with new rules.¹³⁶

The AER has also developed a voluntary sustainable payment plans framework to further support consumers and assist retailers in assessing consumers' capacity to pay.¹³⁷ The framework seeks to improve the quality of "capacity to pay" conversations while still allowing flexibility and encouraging retailers to offer assistance to consumers.

¹³⁵ NERL section 204; NERR rule 75A.

¹³⁶ <https://www.aer.gov.au/retail-markets/retail-guidelines-reviews/customer-hardship-policy-guideline>

¹³⁷ AER, Sustainable payment plans - version 1, July 2016, accessed at: <https://www.aer.gov.au/system/files/AER%20Sustainable%20payment%20plans%20framework%20-%20Version%201%20-%20July%202016.pdf>

Victoria

The legislative and regulatory requirements for retailers operating in Victoria are different to those applying to retailers in participating NECF jurisdictions. The Payment difficulty framework forms Part 3 of Victorian Energy Retail Code and came into force on 1 January 2019. This framework sets out the minimum standards of assistance residential energy consumers anticipating or facing payment difficulties are entitled to.¹³⁸

Under the framework, there are two types of assistance measures, standard or tailored assistance. For each assistance measure, retailers are required to offer a number of payment options as set out in the code. A key feature of the framework is that any consumer with a debt of \$55 is entitled to tailored assistance from their retailer. This threshold for consumer debt is likely to enable a large group of consumers in Victoria that are experiencing payment difficulties as a result of the pandemic to be supported by this framework.

Under the framework, retailers must:

- contact consumers to explain their rights, and advise them of government and non-government assistance available to them
- negotiate an affordable payment plan
- assist the consumer to establish payment arrangements that will enable the arrears to be repaid within two years
- if a consumer is struggling with ongoing energy costs, offer them an energy plan that will help them lower their energy bills and also put any debt on hold for six months to help the consumer catch up
- accept their consumers' advice on how much they can afford to repay and work with them to negotiate a repayment plan
- accept payment plans that would see energy debts paid off within two years.

In addition to the framework, the Victorian Government also enacted legislation in 2006 which required energy retailers to have approved policies and programs in place to assist domestic consumers suffering energy hardship. Under the hardship legislative provisions, each retailer published its own energy consumer hardship policy. The Essential Services Commission (ESC) assesses each policy for compliance with the legislative requirements for energy consumer hardship.¹³⁹

7.1.3

New measures in response to impacts on consumers

Response from regulatory bodies

Australian Energy Regulator

¹³⁸ ESC, Energy Retail Code, Version 12, Part 3, 1 January 2019.

¹³⁹ Victorian government, Concessions and hardship - energy, accessed at: <https://www.energy.vic.gov.au/about-energy/your-bill/concessions-and-hardship>

On March 27 2020, the AER released a Statement of Expectations of energy businesses.¹⁴⁰ The AER recognised that the circumstances arising from the pandemic mean more residential and small business consumers may find it difficult to pay their bills. The AER stated that it expects retailers, distributors and exempt sellers to adhere to the below principles.

BOX 13: AER STATEMENT OF EXPECTATIONS

1. Offer all residential and small business customers who indicate they may be in financial stress a payment plan or hardship arrangement, regardless of whether the customer meets the 'usual' criteria for that assistance.
2. Do not disconnect any residential or small business customers who may be in financial stress, without their agreement, before 31 July 2020 and potentially beyond.
3. Do not disconnect any large business customer, without their agreement, before 31 July 2020, and potentially beyond, if that customer is on-selling energy to residential or small business customers (for example, in residential parks or retirement villages).
4. Defer referrals of customers to debt collection agencies for recovery actions, or credit default listing until at least 31 July 2020.
5. Be prepared to modify existing payment plans if a customer's changed circumstances make this necessary.
6. Waive disconnection, reconnection and/or contract break fees for small businesses that have ceased operation, along with daily supply charges to retailers, during any period of disconnection until at least 31 July 2020.
7. Prioritise the safety of customers who require life support equipment and continue to meet responsibilities to new life support customers.
8. Prioritise clear, up-to-date communications with customers about the issues addressed in this Statement, including by keeping website, social media and call centre waiting and hold messages up to date, so customers can readily access updates when they need them and relieve some pressure on affected call centres.
9. Prioritise clear communications with customers about the availability of retailer and other supports, including the availability of payment plans, energy efficiency advice and fault repair.
10. Minimise the frequency and duration of planned outages for critical works, and provide as much notice as possible to assist households and businesses to manage during any outage.

Source: AER Statement of Expectations of energy businesses: Protecting consumers and the energy market during COVID-19, 27 March 2020. accessed at: <https://www.aer.gov.au/publications/corporate-documents/aer-statement-of-expectations-of-energy-businesses-protecting-consumers-and-the-energy-market-during-covid-19>.

¹⁴⁰ AER Statement of Expectations of energy businesses: Protecting consumers and the energy market during COVID-19, 27 March 2020. accessed at: <https://www.aer.gov.au/publications/corporate-documents/aer-statement-of-expectations-of-energy-businesses-protecting-consumers-and-the-energy-market-during-covid-19>.

The AER stated that it would closely monitor consumer outcomes, and the extent to which its expectations are met. It signalled that it would do this through its performance reporting framework and ongoing engagement with energy Ombudsman schemes.¹⁴¹

The AER also stated that it would review the timing of current and upcoming regulatory initiatives to understand how these might need to change in order to allow energy businesses to focus on supporting their consumers. For example:

- the AER delayed its review of the Retail Pricing Information Guidelines, and
- sought stakeholder views on the pandemic impacts that should be taken into account in making its DMO determination for 2020-21.

Essential Services Commission of Victoria

On 27 March 2020, the Essential Services Commission launched a campaign to inform consumers across Victoria about the support energy retailers must offer Victorians who are facing payment difficulties.¹⁴²

The campaign reiterated key energy protections available to Victorians including:

- flexible payment options
- debt repayments put on hold for six months for households who cannot pay for their ongoing usage costs
- no disconnection for electricity or gas consumers who receive bill assistance or participate in payment plans
- no debt collection actions against households who receive bill assistance.

Australian governments' income and assistance schemes

Commonwealth

On 9 April 2020, the National Cabinet agreed to a nationally consistent approach to hardship support across the essential services for households and small businesses. The principles aim to ease access to support for essential services and are modelled on the AER's statement of expectations (see Box 13).¹⁴³ Businesses eligible for the JobKeeper payment will automatically be considered to be under 'financial stress' for the purposes of accessing hardship arrangements.¹⁴⁴

State and territory governments' response through payment assistance schemes are highlighted above in the Table 7.1

Response from industry participants

Australian Energy Council

¹⁴¹ Ibid.

¹⁴² ESC, Safety net for Victorians suffering energy bill stress, 27 March 2020, accessed at: <https://www.esc.vic.gov.au/media-centre/safety-net-victorians-suffering-energy-bill-stress>

¹⁴³ Prime Minister of Australia, media statement, Update on coronavirus measures, 9 April 2020, accessed at <https://www.pm.gov.au/media/update-coronavirus-measures-3>

¹⁴⁴ Business hardship arrangements are being developed by jurisdictions separately, see for examples in Table 7.1.

The Australian Energy Council is an industry body that represents 23 retailers. It announced on 27 March 2020 that its members would take certain steps to support consumers during the pandemic.¹⁴⁵ In its statement, the AEC noted that retailers have a number of proactive assistance measures that will be available on request, including:

- consumers receiving hardship assistance will not be disconnected if they are unable to afford their energy bills
- retailers will pause any external debt collection and bankruptcy proceedings for consumers in hardship
- late payment fees will not be charged for consumers on a hardship program, if these consumers cannot pay on time.

On 17 April 2020, the AEC submitted a request to the ACCC seeking urgent interim and final authorisation to discuss, share information and, in due course, enter into arrangements to provide financial and other relief to energy users who may be financially impacted by the pandemic.¹⁴⁶

On 1 May the ACCC granted conditional interim authorisation to allow the AEC and wholesale and retail energy businesses to co-operate to provide financial relief to residential and business consumers who may be financially impacted by the pandemic. The ACCC noted the interim authorisation allows business in the electricity and gas markets to hold discussions, share information, and enter into arrangements for the purpose of providing financial relief and other measures to small, medium and large businesses, and to expand support under existing hardship programs for residential consumers.¹⁴⁷

Energy Networks Australia

The ENA has announced a relief package to help retailers with consumer non-payment caused by the pandemic. This is explained further in section 7.2.4.

International examples of measures put in place due to the pandemic

Table 7.2 below provides a summary of responses to the pandemic by the UK and New Zealand energy sectors.

Table 7.2: Increased assistance provided for energy consumers in the United Kingdom and New Zealand

SECTOR	BENEFITS	ELIGIBILITY
United Kingdom - Energy	Ofgem introduced a framework of regulatory flexibility to remain in place for an initial period of three months until 30 th June 2020:	Case-by-case assessment for each consumer

¹⁴⁵ AEC, Retailers confirm support for energy customers, 27 March 2020, accessed at: <https://www.energycouncil.com.au/news/retailers-confirm-support-for-energy-customers/>

¹⁴⁶ Allens (on behalf AEC), Application for authorisation by AEC - Application for interim and final authorisation, 17 April 2020.

¹⁴⁷ ACCC, Electricity and gas companies to co-operate on relief package, 1 May, 2020, accessed at: <https://www.accc.gov.au/media-release/electricity-and-gas-companies-to-co-operate-on-relief-package>

SECTOR	BENEFITS	ELIGIBILITY
	<ul style="list-style-type: none"> • No debt collection • No disconnections • Proactive consumer communications <p>Agreement between government and all domestic energy supply companies setting out principles to support energy consumers impacted by the pandemic:</p> <ul style="list-style-type: none"> • Reassessing, reducing or pausing debt repayment and bill payments for consumers in financial stress • Considering referring consumers who are struggling to pay to third party debt advisers e.g. StepChange and Citizens Advice • Suspending credit meter disconnections <p>Example: British Gas</p> <ul style="list-style-type: none"> • Extra support for vulnerable consumers e.g. 3 months' top-up credit prepay cards. 	
New Zealand - energy	<p>New Zealand Electricity Authority (NZEA) guidelines includes:</p> <ul style="list-style-type: none"> • alternative payment options • advise consumers if there is a better offer available. <p>NZEA deferral of network charges for 60 days over 9 months.</p> <p>Example: Meridan Energy</p> <ul style="list-style-type: none"> • No late fees • Referrals to social agencies and budgeting advisory services 	<p>For deferrals of network charges scheme:</p> <ul style="list-style-type: none"> • Retailers must have been in good financial position pre-COVID-19 but default as a result of the pandemic impacts • Cannot access other forms of support • Retailers individually assessed for entry into the scheme

Source: For the United Kingdom: https://www.ofgem.gov.uk/system/files/docs/2020/04/supplier_letter.pdf, <https://www.ofgem.gov.uk/publications-and-updates/ofgem-information-energy-licensees-coronavirus-covid-19-response>, <https://www.britishgas.co.uk/covid19>, <https://www.gov.uk/government/news/government-agrees-measures-with-energy-industry-to-support-vulnerable-people-through-covid-19> For New Zealand: <https://www.gov.uk/government/news/government-agrees-measures-with-energy-industry-to-support-vulnerable-people-through-covid-19>, <https://www.ea.govt.nz/operations/retail/retailers/retailer-obligations/medically-dependant-and-vulnerable-customers/>, <https://covid19.govt.nz/businesses-and-employees/covid-19-financial-support-tool/>, <https://www.meridianenergy.co.nz/your-home/account-and-support/medically-dependent-or-vulnerable>.

7.1.4

Commission's analysis

The Commission notes and supports the actions taken by the AER and jurisdictions to help consumers by:

- ensuring they will not be disconnected without their agreement, before 31 July 2020, and potentially beyond
- providing additional payment assistance in relation to the energy bills of consumers in financial hardship.

The Commission also notes however, that payment assistance schemes do vary significantly between jurisdictions. Variation has been observed in the:

- amount provided by the measures (value). The value of payments offered varies between jurisdictions as does the frequency of consumer payments.
- way measures can be accessed (access). Certain measures are paid to consumers directly, while others apply a rebate automatically when an energy bill is issued (that is, the money is credited to the retailer to offset the bill).
- groups targeted for assistance (eligibility). For example, new measures in Queensland and Tasmania apply to all residential consumers, while South Australia's measure is available to consumers receiving the Jobseeker payment. Of particular note is the variation in support available for low income and unemployed consumers, with the number of unemployed consumers expected to increase significantly during and after the pandemic.

Bill assistance measures are within the jurisdiction of state and territory governments and are designed to best meet the needs of each population. The Commission considers that the appropriate targeting of these measures will be of critical importance to reduce financial hardship experienced by consumers. The Commission notes that, as shown on Table 7.1:

- five of six jurisdictions have ongoing emergency bill assistance measures that pre-dated the pandemic
- five of six jurisdictions have introduced pandemic support schemes that directly provide financial support to consumers.

In relation to the eligibility of the payment assistance schemes, the Commission notes that:

- four of five jurisdictions offering emergency bill assistance have criteria that enable a recently unemployed person to receive financial support with relative ease¹⁴⁸
- four of five jurisdictions offering pandemic support schemes have criteria that enable a recently unemployed person to receive financial support with relative ease.¹⁴⁹

The preceding analysis indicates that, while coverage is not uniform, all jurisdictions have measures in place to support consumers experiencing financial hardship as a result of the pandemic. Due to the unprecedented nature of this crisis, the Commission considers that

¹⁴⁸ These schemes can be accessed by self-declaring, demonstrating hardship or by applying to and holding a government concession card. For example, pensioner concession card and a health care card are immediately available for up to one year for consumers on Jobseeker.

¹⁴⁹ In Queensland, the Australian Capital Territory and Tasmania, the measures apply to all consumers across the state.

where jurisdictions have been able to test whether the mechanisms they use to deliver assistance are robust under crisis conditions, this provides them with a useful benchmark against which to consider whether redesign of their assistance mechanisms are warranted. This may be particularly important within the context where the requirement to stay home might increase residential energy bills and that different stages of the pandemic may change the number and composition of consumers in need of assistance.¹⁵⁰

The Commission also notes the advantages of a harmonised approach to consumer support schemes. Advantages may include:¹⁵¹

- improvement in consumer access to support schemes
- reduction in costs to retailers to administer these schemes.

Improved consumer access

Differences in value, access and eligibility of different jurisdictional schemes may lead to consumers living in different jurisdictions, but who are exposed to similar level of financial hardship, being eligible to receive different levels of support.¹⁵² These differences add unnecessary complexity for both retailers and consumer groups in assisting consumers in different jurisdictions to gain access to support schemes, precisely at a time when these groups (e.g. retailers' call centres) may be under added pressure.¹⁵³ For example, EWON has identified instances where a retailer has not applied concessions to a consumer's bills because they did not understand details of a jurisdiction's consumer support scheme.¹⁵⁴ In total EWON and EWOV recorded over 1400 complaints related to concessions and rebates in 2018-19 and labelled the issue as "systemic".¹⁵⁵ The Commission considers that a harmonised approach may reduce complexity faced by retailers in understanding support schemes may lead to increased consumer access and benefits from these schemes.

Reduced costs to retailers

Retailers operating across jurisdictions must set up processes and training that enable their staff to give consumers access to support schemes. Differences in value, access and eligibility of different jurisdictional schemes may add to costs faced by retailers — costs which may ultimately passed on to consumers. KPMG research commissioned by the ECA quantified the

150 PIAC has estimated that bills may increase by \$200 a month during winter months for certain consumers. PIAC, Community and consumer organisation joint proposal: National COVID-19 energy hardship relief package, March 2020, accessed at: <https://piac.asn.au/wp-content/uploads/2020/03/COVID-19-National-Energy-Hardship-Relief-Package.pdf>.

151 Previous Retail energy competition reviews from 2016 to 2018 recommended the harmonisation of concessions schemes across jurisdictions so the schemes were more accessible to consumers and easier for retailers to understand and recommend to hardship consumers. See for example, AEMC, retail energy competition review 2016, June 2016, p. v.

152 QCOS, Energising concessions policy in Australia, May 2014, accessed at: <https://energyconsumersaustralia.worldsecuresystems.com/grants/518/Energising-Concessions-Report---May-2014.pdf>

153 For example AGL noted that its contact centre has been impacted by workplace restrictions, which means longer than usual wait times for phone and messaging responses, see: <https://www.agl.com.au/coronavirus?cidi=A10520>

154 EWON, annual report 2018-19, p. 40, accessed at: https://www.ewon.com.au/content/Document/Annual%20Reports/AnnualReport_18-19_WEB.pdf?utm_source=website&utm_medium=PDF&utm_campaign=download

155 EWON, annual report 2018-19, p. 29, accessed at: https://www.ewon.com.au/content/Document/Annual%20Reports/AnnualReport_18-19_WEB.pdf?utm_source=website&utm_medium=PDF&utm_campaign=download; EWOV, annual report, 2018-19, pp, 50, 57, 65 accessed at: https://www.ewov.com.au/files/ewov_2019_annual_report_0.pdf

costs to retailers for consumers in financial difficulty. KPMG noted that retailers incur costs to:¹⁵⁶

- identify consumers who may qualify for entry into a hardship scheme
- administer government concession schemes that are set in different ways.

These retailer costs, as well as other operational and compliance costs, were estimated to be \$270 million per year across the NEM. The Commission notes that a harmonised approach to support schemes may reduce requirements and costs placed on retailers regarding staff training, thus improving the ability of retailers to give consumers access to financial support.¹⁵⁷

7.2 Retailer experience

The retail electricity sector is particularly exposed to the consequences of the downturn in economic activity. Electricity retailers carry the credit and cash-flow risks for the entire electricity sector, yet on average only about 15 per cent of a customer's bill is the retailer component (11 per cent costs and 4 per cent margin) with 85 per cent of the bill made up by network (43 per cent), wholesale (33 per cent) and environmental (eight per cent) costs.¹⁵⁸

The temporary closure of small businesses and the substantial increase in unemployment has increased the number of electricity customers who are unable (or unwilling) to pay their monthly electricity bill.

This section outlines:

- the impact of the pandemic on retailers
- how resilience to impacts will differ between retailers
- the existing retailer payment cash flow framework
- new voluntary measures and rule change requests to help mitigate these impacts
- proposed reforms to address short term impacts from the pandemic, and better equip the retail market for future crises.

7.2.1 Impacts on retailers

The most significant financial impact of the pandemic on energy retailers is the increased cash-flow risk from customer late or non-payment. Retailers may also be impacted by

¹⁵⁶ KPMG, Quantifying the costs of consumers experiencing difficulties in paying bills, November 2016, pp. 27-8, accessed at: https://energyconsumersaustralia.com.au/wp-content/uploads/KPMG-ECA_Estimating_costs_associated_with_payment_difficulties_and_disconnections_October_2016.pdf.pdf .

¹⁵⁷ The expectation of higher costs associated with differing jurisdictional regulation is consistent with findings from the Productivity Commission regarding product safety regulation, which stated that "Greater harmonisation of product safety regulation is warranted due to the costs that inconsistencies impose on businesses, governments and consumers. Such inconsistencies make it difficult or more expensive for businesses to supply goods across State and Territory borders. Further, it reduces competition and opportunities to exploit economies of scale to some extent. See p. xxix of <https://www.pc.gov.au/inquiries/completed/consumer-product-safety/report/productsafety.pdf>. For example, the Australian government stated that it saved \$83 million in reducing in unnecessary or redundant legislation in 2014, see: <https://www.minister.industry.gov.au/ministers/macfarlane/media-releases/red-tape-reduction-delivers-835-million-saving-industry>.

¹⁵⁸ ACCC November 2019 Inquiry into the National electricity Market cost stack information <https://www.accc.gov.au/system/files/Inquiry%20into%20the%20National%20Electricity%20Market%20-%20November%202019%20Report.PDF>.

reduced volumetric revenue due to an overall fall in consumption, increases in costs to serve customers, and being over-hedged at a higher price than the prevailing spot market.

The AER and ESC have begun collecting data to monitor the effects of the pandemic on retailers. This data includes indicators of the financial position of retailers with the aim of identifying potential risks quickly. As part of the AER's DMO 2020-21 determination process, the AER called for a second round of submissions asking how the impacts from the pandemic should be considered.

This section provides a summary of the impacts to retailers identified through these two processes.

AER monitoring - indicators of retailer financial distress

AER debt monitoring is subject to a significant lag, to the point where data collected as of 18 May 2020 captures arrears accrued as at 31 January 2020 or earlier. Whilst these statistics may not be reflective of the impact of COVID-19, they highlight an increasing debt position for many retailers in the lead up to the crisis. The AER reports that relative to Q2 2019-20 (as of 18 May 2020), the level of debt among both residential and small business electricity customers has increased significantly:¹⁵⁹

- average proportion of residential electricity customers repaying debt is 5.7%, which is an increase of 2.29 percentage points from Q2 2019-20
- average amount of debt for residential electricity customers is \$706.24, up 7.58% from 30 March 2020 and 14.3% from Q2 2019-20
- average proportion of small business electricity customers repaying debt is 5.52%, an increase of 0.59 percentage points from Q2 2019-20
- average amount of debt for small business electricity customers is \$2,458.10, up 30.86% from Q2 2019-20.

There has been a slight increase in terms of other hardship statistics. The average proportion of customers on hardship programs is 0.83%, which is a small increase of 0.01 percentage points from Q2 2019-20. The average debt of electricity customers on hardship program, however, is \$1,207.85, a 15.6% increase from Q2 2019-20.

This slight increase in customers on hardship programs is mirrored in regard to payments plans. The average proportion of customers on payment plans is 1.72%, and this represents a 0.05 percentage point increase from Q2 2019-20. However, the AER notes that while this increase is not as significant as expected, actions taken by retailers such as offering customers the option to defer outstanding payment until 31 July 2020 are not included in this data as this is not under the definition of payment plan. This may also increase with a lag given the process to enter a hardship program, as outlined in Figure 7.3.

Other initial indicators show:

¹⁵⁹ These measures on customer debt may also be higher due to the financial impacts from the extensive bush fires experienced across Australia during the 2019-20 summer.

- some retailers have experienced a significant increase in the average amount of electricity bill debt for non-hardship customers, while other retailers have reported a more modest increase or even a decrease in the same metric
- retailers' SME customer debt is increasing, although the average amount of electricity bill debt for SME customers has decreased which may be due to a growing number of new SME customers paying debt who did not have debt before.

DMO 2020-21 determination

Retailers noted several areas of concern in relation to the impact of the pandemic on the setting of the DMO, including increased customer debt, high uncertainty and increased service costs. However, the AER noted stakeholders acknowledged the considerable uncertainty in forecasting the wholesale, environmental and network costs components at this time. There was no clear consensus on whether these types of costs would materially increase or decrease as a result of COVID-19.¹⁶⁰

Responses from retailers varied, however increased levels of bad or doubtful debt were consistent among submissions. The impact of such increases in debt varied among retailers, with some noting the potential for bad and doubtful debt to double.

In addition to the general concern about increased debt levels, many retailers also highlighted the impact of the pandemic on business activity and the costs associated with these changes. Retailers voiced concerns over increased costs due to on-shoring of work usually performed overseas, such as call centre work. Retailers also noted the additional costs associated with transitioning their workforce to work from home.

Retailers also raised concerns about the impact of the pandemic relative to their financial position before the crisis hit. Retailers commented on the impact that the recent bush fires had on their debt position leading into the current economic circumstances, and that because of this the risk associated with increases of bad or doubtful debt were significantly magnified.

The AER did not make any form of adjustment to the final DMO for 2020-21 in response to the pandemic due to uncertainty and difficulty in forecasting impacts.¹⁶¹

The responses of retailers are in line with data gathered to date, showing that the pandemic has the potential to have a large impact on the retail electricity sector. The responses also highlight that the severity of impacts on retailers is likely to vary due to a number of factors. This is discussed in the next section.

7.2.2

Resilience to impacts will differ between retailers

The resilience of retailers to financial impacts will vary widely across retailers depending on a number of factors, including a retailer's:

160 Australian Energy Regulator, Final Determination: Default Market Offer Prices 2020-21, 30 April 2020, accessed at: https://www.aer.gov.au/system/files/AER%20-%20Default%20Market%20Offer%20-%20Price%20determination%202020-21%20Final%20Determination%20-%2030%20April%202020_0.pdf

161 Australian Energy Regulator, Final Determination: Default Market Offer Prices 2020-21, 30 April 2020, accessed at: https://www.aer.gov.au/system/files/AER%20-%20Default%20Market%20Offer%20-%20Price%20determination%202020-21%20Final%20Determination%20-%2030%20April%202020_0.pdf

- profitability before the pandemic
- corporate and financial structure
- hedging strategy
- customer service and IT locations.

This section explores each of the above factors.

Retailer revenue risk has been compounded by the AER's Statement of Expectations (SOE) that no customer is disconnected as a result of the pandemic. Mitigation of this impact is discussed in section 7.2.4.

Profitability before the pandemic

One of the major determinants of the financial resilience of retailers is their level of profitability before the economic impacts of the pandemic. This section briefly discusses how the profitability of retailers depends upon different factors.

As part of its *Inquiry into the National Electricity Market* the ACCC publishes regular reports which cover profits and margins of retailers in the NEM. The data and observations in this section (unless otherwise noted) are based on data from the most recent report from November 2019.¹⁶²

On a NEM-wide basis, retailer net margins (EBITDA) in 2018-19 made up around \$66 of an average residential customer's annual electricity bill, or around four per cent of the total bill. These margins have been declining for the past three years and fell by around one third since 2017-18 (from around six per cent). The ACCC notes some retailers have suggested that the reduction in margin was due to competitive pressures and a decline in electricity consumption. An overall decline in profitability may have placed some retailers in a less secure financial position in the lead up to the crisis.

The profitability of individual retailers depends upon a number of factors. One of the major factors is the class and type of customers that a retailer supplies.

Broadly speaking, retailers supply electricity to three classes of customers:¹⁶³

- Residential customers generally make up the majority of most retailers' customer bases by number (but not necessarily by total consumption)
- Small to medium enterprise (SME) customers are generally businesses with a wide range of consumption profiles depending upon the business
- Commercial and industrial (C&I) customers have very large loads including businesses such as smelters and large manufacturing plant.

The overall profitability of a retailer will depend upon the number of each of these classes of customer that they supply. As mentioned above, overall retailer net margins for residential customers were around 4 per cent for 2018-19. Margins were higher for SME customers at

162 The latest report is available at <https://www.accc.gov.au/publications/inquiry-into-the-national-electricity-market-november-2019-report>

163 For the purposes of this section we have adopted the customer classes used by the ACCC in their *Inquiry into the National Electricity Market* reports. Other sections of this report may break down customers along different dimensions.

around 8 per cent while margins for C&I customers were the lowest at around 2 per cent (although this is based on a much higher level of electricity consumption).

Therefore, retailers with a greater proportion of SME customers may have had a higher level of profitability before the crisis. However, SME customers also have a greater degree of variability in their consumption. In particular, it is likely that the shut-downs that have occurred during the pandemic have disproportionately impacted consumption by SME customers and the shut-downs have also negatively impacted the ability of SME customers to pay their electricity bills.

Many C&I customers have not been as significantly impacted by the shut-downs to date (although the situation is rapidly changing). We would expect that, at least in the short-term, these types of customers may provide a relatively steady revenue stream for their retailers.

The different classes of customers also tend to have different load shapes. Residential customers for example, tend to have a diurnal load shape, with a peak in the morning and evening. SME customers will generally have load shapes reflecting their hours of operation and some C&I customers have a flat load that does not vary significantly across the day. This can have cash flow implications for retailers that have constructed their hedging portfolio on the assumption of a certain load shape. In particular, retailers with a greater proportion of SME customers may be exposed in their hedging positions if a large number of these customers were impacted by the shut downs. The impact of hedging strategies on retailer resilience is covered below.

Retailer profitability also depends upon the types of customers they supply. Customers have varying levels of engagement in the retail market. Some customers are highly engaged, are sensitive to prices and regularly switch between retailers. Other customers are less engaged, are insensitive to prices and are less likely to switch. At the extreme, there are some customers who have never changed retailer and are likely to be on higher priced standing offer contracts. As explained in the ACCC's *Retail Electricity Inquiry*, large Tier 1 retailers are likely to have a greater number of disengaged customers due to the way they acquired their customer bases. Disengaged customers are on average more profitable to retailers than customers who regularly switch.¹⁶⁴ Conversely, smaller Tier 2 retailers are more likely to target engaged customers who are more sensitive to price and who are on average less profitable for the retailer. For example in New South Wales, Tier 1 retailers had 96 per cent of residential customers on standing electricity contracts.

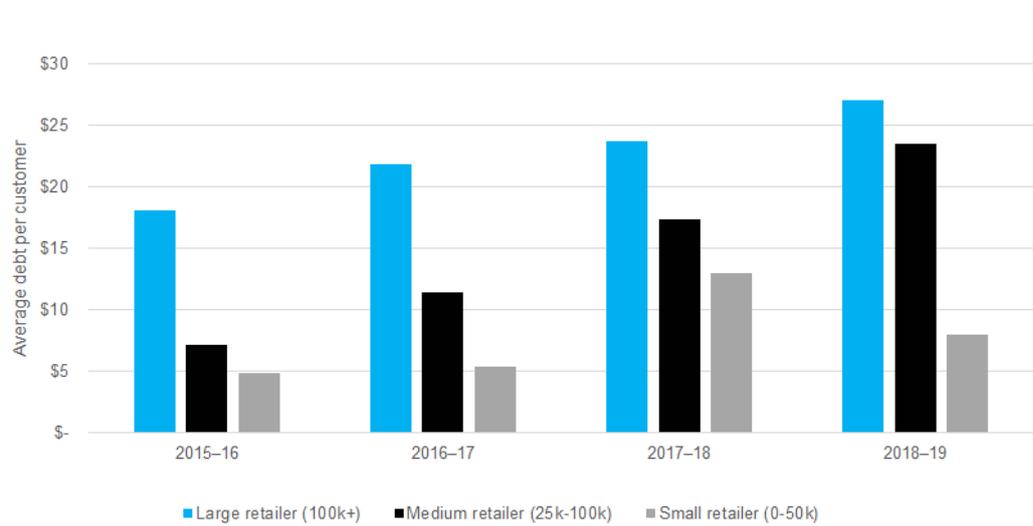
While Tier 1 retailers have a greater proportion of disengaged customers, the increased margin earned on these customers is partially offset by their higher levels of customer debt relative to Tier 2 retailers. The ACCC found that Tier 1 retailers spend around 12 per cent of their cost to serve on debt and credit collection, compared to three per cent for Tier 2 retailers. There is a risk that the ongoing crisis will cause customer debt levels to increase for Tier 2 retailers which cannot rely on high margin customers to the same degree as the Tier 1 retailers.

¹⁶⁴ See ACCC - Retail Electricity Pricing Inquiry - Final Report, p. 28, 134.

BOX 14: POTENTIAL IMPACT OF INCREASED DEBT ON RETAILER MARGINS

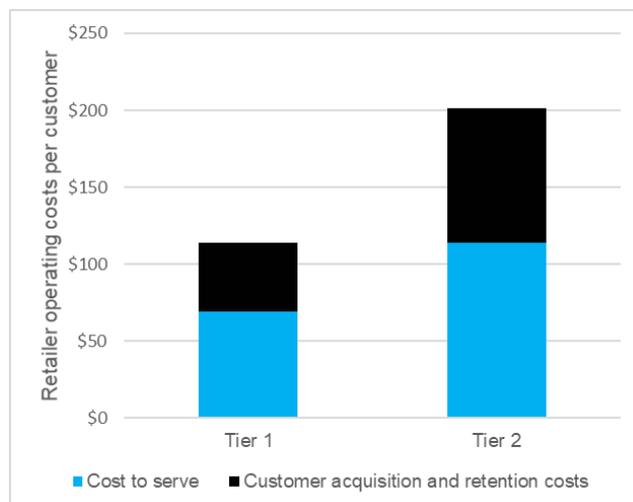
As profitability varies between retailers, so will the potential impact of the pandemic. As illustrated in Figure X below, larger retailers tend to carry higher proportion of debt per customer than smaller retailers. While the larger retailers do carry more debt on average, the overall retailer operating costs (which includes hardship and bad debt costs) of a Tier 2 retailer is around 76 per cent higher than a Tier 1 retailer as illustrated in Figure X below.

Figure 7.4: Average debt per residential customer– Victorian retailers



Source: AEMC analysis of ESC data

Figure 7.5: Retailer operating costs per residential customer



Source: ACCC, Electricity market monitoring November 2019 report

Given the higher operating costs, it can be extrapolated that, assuming the residential

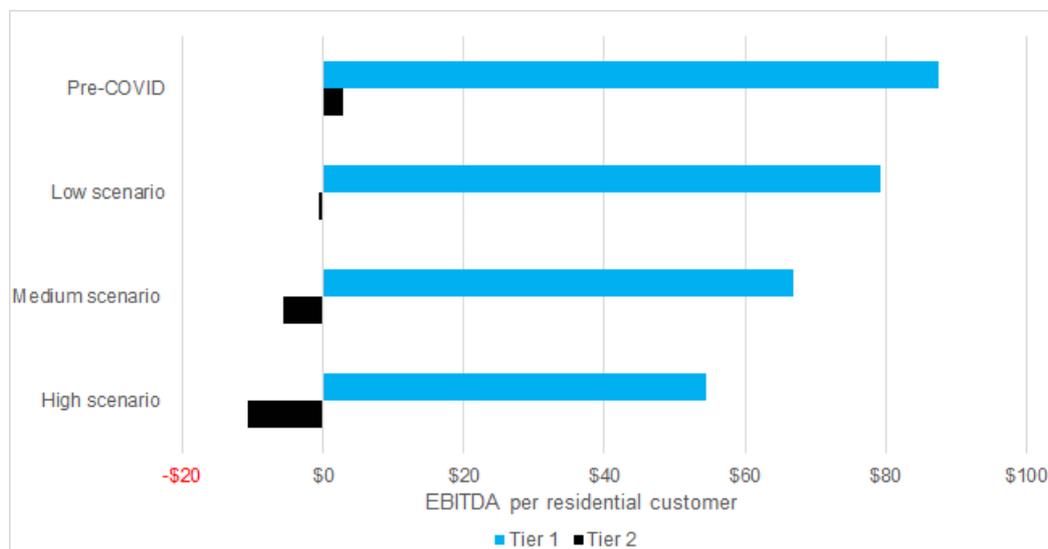
electricity price and other wholesale and network cost components are equal between Tier 1 and Tier 2 retailers, Tier 1 retailers have a higher retail margin than Tier 2 retailers, and therefore would be able to better sustain the impact of the pandemic.

On this basis, several illustrative scenarios are presented below, which show the impact of increasing hardship and debt collection costs on earnings before interest, tax, depreciation and amortisation (EBITDA) or retail margins. Three scenarios are explored including:

- Low scenario - representing a 200 per cent increase in hardship and debt collection costs
- Medium scenario - representing a 350 per cent increase in hardship and debt collection costs
- High scenario - representing a 500 per cent increase in hardship and debt collection costs.

These scenarios were explored using Tier 1 and Tier 2 retail cost data from the ACCC electricity market monitoring report. However, several assumptions were made, and as such the results are only illustrative. The results are presented in Figure X below.

Figure 7.6: Illustrative impact of COVID-19 on EBITDA



Source: AEMC analysis of ACCC data

Note: The results presented are illustrative, and are reliant on numerous assumptions, including: all bill stack components, aside from retail costs, are the same between Tier 1 and 2 retailers; 'other retail costs' are the same across Tier 1 and 2 retailers; hardship and debt collection costs increase at the same rate, whilst other retail costs do not change.

The results of the analysis illustrate that some retailers had small margins before the pandemic, and would experience negative cash flows with a small increase in debt costs, whilst others may be able to sustain high levels of bad debt before experiencing serious financial stress. While the analysis above is stylised and only looks at changes to one element of retail cost, there are a range of costs that would be impacted by the pandemic, resulting in significantly different financial impacts for individual retailers.

The Commission notes the analysis above could be reproduced with greater accuracy and insights if market bodies had greater ability to gather information from participants akin to the ACCC's information gathering for its biennial reporting. Energy Consumers Australia recently submitted a rule change proposal to the Commission seeking to improve transparency on the retail market, particularly regarding retail margins, which may assist in analysis like this.*

Note: * More information on the rule change request is available at:
<https://www.aemc.gov.au/rule-changes/retail-market-transparency>.

Corporate and financial structure

An important factor for the financial resilience of retailers in the face of cash flow challenges is their size and ownership. Small standalone retailers may have fewer resources to weather short-term cash flow issues relative to larger retailers, or retailers that are a part of a larger conglomerate may have alternative revenue sources. Larger businesses may also have greater access to debt, or access to debt at lower cost, that may allow them to withstand losses for a longer period.

Similarly, retailers that are more highly geared may face greater short-term difficulties than retailers with a greater proportion of equity finance due to the greater burden of debt repayments.

Retailers that are vertically integrated may also be more resilient in the face of shocks due to factors covered in the following sub-section.

Hedging strategy

Retailers employ various hedging strategies to manage their wholesale market risk. The strategies employed by retailers will impact on their financial resilience to the impacts of the current crisis.

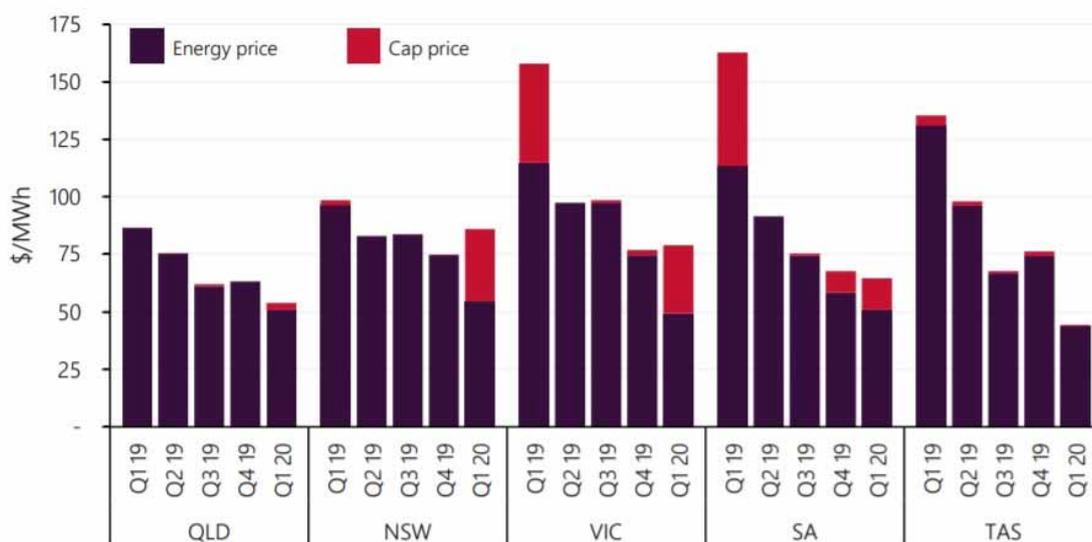
Shut downs as a result of the pandemic have had an impact on the shape and size of load and the wholesale price has fallen. Total consumption has fallen moderately, with a later morning peak and an earlier afternoon peak compared to the same period last year. AEMO has reported operational demand in Q1 2020 fell by 951 MW compared to Q1 2019, noting the pandemic shut downs only began in March.¹⁶⁵ The reduction in consumption is most likely driven by a significant reduction in load from businesses that were shut down which has been partially offset by an increase in residential load. It is also possible that there will be an increase in the variability of load as we approach winter, depending on the proportion of the population continuing to work from home.¹⁶⁶ This fall in demand also contributed to falls in wholesale electricity prices, which have fallen to their lowest levels since Q4 2016, as

¹⁶⁵ AEMO, Quarterly Energy Dynamics: Q1 2020, p. 8.

¹⁶⁶ AEMO has produced a note on the impact of the pandemic on demand in Australia, available here:
<https://aemo.com.au/news/demand-impact-australia-covid19>

illustrated in Figure 7.7 below. Other contributing factors to the fall in wholesale prices include lower gas prices and increased renewable output.

Figure 7.7: Average wholesale electricity prices



Source: AEMO, Quarterly Energy Dynamic: Q1 2020, p. 93

These changes to retailer load, and the lower wholesale price have implications for the cash flow of retailers. While retailer portfolios are complex and combine a number of different strategies, below we summarise what these strategies might mean for the impact of the crisis on retailer cash flows. We consider the following hypothetical scenarios:

- A retailer with an unhedged load
- A retailer with a fully hedged load
- A retailer with a load-following hedge
- A vertically integrated retailer.

In the extreme case of a retailer with an unhedged load, they will likely benefit from lower wholesale prices, particularly if their customer base is on fixed price contracts. In this case, any reduction in consumer payment to the retailer will be partially offset by lower wholesale costs.

A retailer with a fully hedged load has likely purchased swap contracts at prices that prevailed before the pandemic crisis was apparent. These retailers have effectively 'locked-in' the higher wholesale price and will be required to pay generators for the difference between the strike price of their swap contracts and the current (lower) spot price for the full contracted volume. This may present a cash flow challenge to retailers as their customer load may be lower, and they may be experiencing higher rates of non-payment or late payment from their customers.

For a retailer with a load-following hedge they will not be exposed to volume risk as their contracted volumes depend on their customer load. However, they may be required to make higher than expected payments to generators for the reduced volume and will likely face higher rates of customer non-payment.

Vertically integrated retailers face lower risks as the lower wholesale price received by generators is offset by the larger margin earned from customers on fixed price contracts. However, vertically integrated retailers may still be exposed to the wholesale market depending on the size and shape of their generation profile relative to their load. As with retailers in the other described circumstances, vertically integrated retailers will likely face higher rates of customer non-payment or late payment.

In reality, retailers combine a number of these strategies and this will have impacts on their cash flows. In general, those that are more conservatively hedged through contracts will face greater cash flow challenges due to the lower wholesale spot price.

Customer service and IT

The Commission is aware of some retailers facing call centre and IT challenges in the face of the pandemic. For example, some retailers have call centres based in countries where there have been lock downs. This has required retailers to contract out customer support to other service providers at short notice which can be costly. Given the economic impacts locally, it is also expected that the volume of calls would increase with many customers in financial difficulty which may require additional call centre or customer support staff.

7.2.3

Existing payment framework

To ensure the overall financial integrity of the electricity supply chain, retailers are subject to strict on-going financial obligations, enforced by the ASX, the AER and the AEMO. For example, the NEM prudential obligations (and the ASX margin requirements) must be settled every day. Wholesale purchases are settled every week, while network charges are paid monthly. These obligations continue whether or not retail customers have paid their bills. Under AEMO rules, the failure to make a payment may result (within 48 hours) in AEMO declaring a default which may trigger a RoLR event (see section below).

Retailer cash flow

A potential challenge for retailers during the current crisis is being able to manage their cash flow. There is a mismatch between when retailers receive payment from customers they supply and when they pay their own liabilities. For example, retailers generally receive bill payments from small customers on a delayed basis (i.e. once per month or quarter) but are required to make payments on their own liabilities more frequently. During the pandemic many retailers will experience a significant increase in the amount of customer debt that is not paid on time. This can quickly turn into a cash flow challenge for the retailer if they are not adequately prepared for the increase in non-payment from their customers. Quarterly payments in arrears may also result in a lag before retailers experience non-payment. Table 7.3 provides examples of the frequency of cash flows that a retailer pays or receives.

Table 7.3: Frequency of required payment for retailer cash flows

CASH FLOW	FREQUENCY OF PAYMENT
NEM prudentials	Paid daily
ASX margining	Paid daily (working days)
Wholesale settlement	Paid weekly (with disputes taking up to 30 days to finalise)
Network costs	Paid monthly
Customer payments	Generally received monthly or quarterly for small customers
Market fees	Payment varies between price additive, weekly charge and annual fees
LRET and SRES	Annually (LRET) and quarterly (SRES)
Environmental Schemes	Payments varies between schemes and states

7.2.4

New voluntary measures from the ENA and rule change requests

Energy Networks Australia relief package

On 27 March 2020 the Australian Energy Regulator issued a Statement of Expectations, raised earlier in Box 13, setting out the principles to which energy distribution businesses are expected to adhere to during the pandemic crisis. Among those principles was the expectation that energy businesses would not disconnect any residential or small business customer who may be in financial distress without their agreement before 31 July 2020 and potentially beyond. In response to the increased financial burden placed on retailers the ENA has put forward a package of measures, to be delivered by network distribution businesses, that provide direct support for affected small business customers impacted by COVID 19, as well assisting large and small retailers so they can support impacted customers.¹⁶⁷

Residential consumers

Network businesses will rebate network charges for residential consumers supplied by small retailers, and defer payment for residential consumers with large retailers.^{168 169} The deferral or rebate will apply for consumers that go into default as a result of the pandemic, and will apply for customer network charges from 1 April to 30 June 2020. Relief will apply to residential customers who are:

- existing customers with retailers as at 1 April 2020
- receiving relevant government benefits as from 1 April 2020 (and were not before 1 March 2020)
- in payment default/arrears and this was not the case as at 1 March 2020.

¹⁶⁷ <https://www.energynetworks.com.au/miscellaneous/covid-19-electricity-and-gas-network-relief-package/>

¹⁶⁸ Large retailers are AGL Energy, EnergyAustralia, ERM Power, Lumo Energy, Momentum Energy, Origin Energy, Red Energy, Simply Energy, Stanwell Corporation and all of their affiliates.

¹⁶⁹ The ENA relief package provides a high-level guide, which the networks businesses have tailored to their distribution area.

Rebated payments (for residential consumers with small retailers) will be processed by networks in arrears of monthly invoicing, with networks providing a rebate of the relevant network charges by the end of September 2020 for the period from 1 April to 30 June 2020 following receipt of supporting evidence by 1 September 2020.

Deferred payment (for residential consumers with large retailers) will be processed by the networks in arrears of monthly invoicing, subject to the retailers providing supporting evidence. The retailers will make all deferred payments under the relief package in full on or before 30 September 2020.

Small business consumers

Network charges will be rebated for small business customers experiencing financial stress as a result of the pandemic. This will apply for customer network charges from 1 April to 30 June 2020. Relief will apply to all small business customers who:

- are mothballing over the period of 1 April to 30 June 2020 as a result of the pandemic
- consume less than 40MWh or 400GJ per annum (based on 2019 consumption) and use less than 25% of historical average consumption for the period.

Rebating of payments will be processed by networks in arrears of monthly invoicing, with networks providing a rebate of the relevant network charges by the end of September 2020 for the period from 1 April to 30 June 2020 following receipt of supporting evidence by 1 September 2020.

Rule change requests by AER and AEMO

In response to the potential financial stress being placed on retailers under pandemic conditions both the AER and AEMO have proposed rule changes to alleviate financial pressures on retailers.

AER's rule change request - Deferral of network charges for retailers

On 6 May 2020 the AER submitted a rule change request to the Commission to extend the due date for retailers to pay electricity network charges in respect of electricity hardship customers and customers on other forms of deferred payment arrangements due to the pandemic.¹⁷⁰ The rule, if made, would:

- apply to network charges from 1 July 2020 through to 31 December 2020
- preserve the existing allocation of risk between retailers and networks.

The AER noted for these reasons the effect of the proposed rule is temporary and would not adversely affect networks in the long term.

The Commission initiated this rule change request on 28 May 2020 under the expedited rule change process. A final decision is expected to be made on 23 July 2020. Project documentation including stakeholder submissions can be found on the project page.¹⁷¹

¹⁷⁰ The AER did not recommend extending the credit risk to generators as well. This is because networks are not subject to the competitive pressures generators face in the wholesale market. Increasing the cost of generation could have adverse implications for reliability of the NEM.

¹⁷¹ <https://www.aemc.gov.au/rule-changes/deferral-network-charges>

AEMO's rule change request - Delay implementation of five minute and global settlement

On 9 April, AEMO submitted a rule change request proposing a 12 month delay to the implementation of moving the:

- wholesale spot market settlement period from 30 minutes to 5 minutes (5MS)
- market settlement framework to global settlement.

AEMO proposes that this delay would free up both labour and financial resources, which would be under strain during this period, so that the industry can focus on the ongoing supply of energy and providing appropriate customer support.

The Commission initiated this rule change request on 14 May 2020 under the expedited rule change process. A final decision is expected to be made on 9 July 2020. Project documentation including stakeholder submissions can be found on the project page.¹⁷²

7.2.5

Commission's analysis and action

Electricity retailers carry the credit and cash-flow risks for the entire electricity supply chain. Notably, retailers are required to make payments to other participants in the industry supply chain within defined times regardless of the level of non or late-payment by customers.

The Commission considers that risks should generally rest with the participants that are best placed to manage them. As the participant with direct relationships with customers, retailers are best placed to manage the risk of non or late-payment by customers. For example, for small consumers retailers have developed strategies such as pay on time discounts, late payment fees and advanced payments to manage late payment or non-payment risks. For large consumers, retailers are able to negotiate terms within their contracts to ensure timely payment (for example, credit support). Retailers may also build in the cost of late or non-payment into their prices. Retailers bearing this risk, therefore generally represents an efficient allocation of risk within the sector.

As suppliers of essential services, energy retailers enter the NEM with knowledge that they are required to continue to supply small consumers who do not pay, or pay late, to a greater degree than retailers of most products and services in the economy. As described in section 7.1.2, these requirements are set out within the hardship and disconnection regulations in the NERL and NERR. Where retailers are not able to withstand increases in the level of non or late-payment, the Commission generally considers these retailers will exit the market and this is an efficient feature of a competitive retail market.

However, the unprecedented circumstances presented by the COVID-19 pandemic may justify providing assistance to retailers to manage cash flow risks that are exceptions to the usual efficient allocation of cash-flow risk within the sector. In particular, the AER's Statement of Expectations of energy businesses expects retailers to continue to supply non-paying customers to a greater degree than could have been foreseen by retailers before the crisis.

Governments and the ENA have reduced the size of the cash flow burden on retailers through increases in financial assistance and the ENA relief package. The Commission notes that it is

¹⁷² <https://www.aemc.gov.au/rule-changes/delayed-implementation-five-minute-and-global-settlement>

considering the rule change requests submitted by both AEMO and the AER through the rule change process. In future reviews the Commission will consider the effectiveness of all measures put in place to mitigate impacts to small consumers and the retail market caused by the pandemic.

The Commission has also considered the possibility of sharing the cash-flow risk with generators. This could be done for example through the deferral of payment of wholesale costs to generators. At this stage the Commission considers that any sharing of cash-flow risks with generators could only be done after carefully considering the following key issues:

- Whether generators will be able to fund deferral of payments and the costs of doing deferral.
- How bad debts will be treated.
- The logistics of deferring payment of wholesale costs, or another sharing mechanism, may be substantially more difficult than within the regulated network sector.
- A significant proportion of the retail market is made up of vertically integrated participants with large generation portfolios. For these participants, a deferral of wholesale costs would move the issues of cash flow risk to the generation side of the business without changing the underlying financial position of the business.
- The potential effect on reliability and security. Some generators may already be facing reduced revenues due to falls in wholesale prices, and increased challenges associated with plant maintenance given travel restrictions, physical distancing requirements or other constraints due to the pandemic. Any disruption or delay to planned maintenance schedules may contribute to decreased reliability, particularly in the approach to summer 2020-21.

BOX 15: ACTION FOR THE COMMISSION TO REVIEW THE EFFECTIVENESS OF CASH FLOW BURDEN SHARING MEASURES

In assessing the 5MS delay and the AER network deferral rule change, the Commission will take into account analysis in relation to risk allocation, financial assistance measures, the ENA relief package and the AER's statement of expectations.

The Commission will consider the effectiveness of all measures put in place in next year's Retail energy competition review.

7.3 Retail market financial stability

This section sets out the Commission's analysis and recommendations regarding the impact the pandemic may have on NEM financial system stability, retail market competition and the consequential impact on small consumers. It steps through the application of the current retailer of last resort (ROLR) scheme in the case of a retailer failure, and how this scheme might not prevent financial contagion. It also examines how the failure of multiple small to medium-sized retailers, either due to the economic shock brought on by responses to the

pandemic or in normal circumstances, would increase market concentration and increase the number of customers on standing or default offers, leading to consumers paying higher prices for energy.

To inform the analysis the Commission draws heavily on the extensive work conducted in the 2015 NEM Financial Resilience Review.¹⁷³

7.3.1 **Potential impacts on market stability**

This section sets out the core risks faced by market participants, the financial interdependencies between market participants in the NEM, and how the failure of one or a few participants may therefore place financial stress on other participants.

Risks faced by market participants

Market participants are exposed to a variety of risks when buying and selling electricity in the NEM, including settlement risk, market risk, credit risk and cash-flow risk. Managing these risks is an integral part of a participant's day-to-day operations and involves continuous trade-off decisions between degrees of exposure to the various sources of risk.

Cash flow risk

Cash flow risk is the risk that a company's available cash will not be sufficient to meet its financial obligations. The Commission considers this is the main risk exacerbated by measures taken to address the pandemic impacts and is explored in more detail in section 7.2.3.

Cash flow risk is differentiated from market liquidity risk. Market liquidity risk arises when there are an insufficient number of parties actively participating in a given market to support willing buyers and sellers transacting their products at acceptable prices or, under certain circumstances, at all. A lack of market liquidity can magnify cash flow risk, as it could limit a participant's ability to sell products or services to support its cash flow position.

Settlement risk

Retailers pay AEMO for the electricity their customers consume, and AEMO subsequently pays generators for the electricity they supply into the market. This settlement process occurs weekly about 33 days in arrears, which means payments for electricity bought are made four weeks in arrears. This creates a risk for generators that one or more retailers may be unable to pay their bill when the payment is due. This is known as settlement risk.

Market risk

Retailers usually charge customers an electricity price that shields customers from direct exposure to spot price volatility in the wholesale market. Retailers must manage the risk of an input with a highly volatile price, while supplying an output to their customers for a more-or-less fixed price.

¹⁷³ AEMC 2015, NEM financial market resilience, Final report, 6 March 2015, Sydney.

Spot price volatility also creates risks for generators, due to the risk of low-price periods. Generation investment involves large fixed costs, and may also involve significant ongoing operating and maintenance costs. However, generators do not have any certainty as to the spot market revenue they will receive from operating. If spot prices are below a generator's costs on a sustained basis, it could encounter financial difficulties.

Generators and retailers seek to manage these risks by entering into a range of financial relationships with each other and with other financial market participants. Given the opposing pay-offs to retailers and generators from high and low spot prices, it is mutually beneficial for both types of participants to enter into financial relationships that allow them to better manage their risks.

Credit risk

Credit risk arises from the possibility of a participant's contracted counter-party defaulting on its obligations under the contract. By entering into over-the-counter (OTC) hedge contracts, market participants are essentially replacing their exposure to market risk by an exposure to the risk of their counter-parties defaulting on their obligations under the contracts. Credit risk can sometimes be referred to as counter-party risk. Participants generally use maximum counter-party credit limits to determine which level of exposure is appropriate for each counter-party, depending on a counter-party's creditworthiness.

Financial interdependencies in the NEM

Interdependencies between market participants exist through financial relationships in both the spot market and in the financial contracts market. These financial relationships can create a high level of financial interdependency between market participants.

Apart from the physical delivery of electricity, relationships between market participants involve financial transactions. These transactions known as 'spot market trading' involve generators receiving payment for all electricity they sell on the spot market, and retailers paying for the electricity their customers use. This settlement process is managed by AEMO.

Generators and retailers seek to manage spot price risks through a range of strategies. Electricity cannot be stored on a large scale so there is a need for real time matching of supply and demand. One option is to enter into financial relationships with each other and with other market participants, known as 'derivative' or 'hedge' contracts. The two main types of hedge contracts are OTC hedge contracts and futures/options traded on the Australian Securities Exchange 24 (ASX 24).

How contagion could occur through financial interdependencies

Financial contagion could occur when a number of market participants are not able to fund their financial liabilities and obligations resulting from the failure of another market participant in the required time. This could threaten the financial stability of the NEM. The likelihood of contagion occurring depends on:

- the nature and extent of the financial exposures of other participants to the failing participant in question. For other participants it will include whether they have hedge cover for their retail loads or generation

- the magnitude and timing of any additional liabilities that may be incurred as a result of the failure of the failing participant
- how the market arrangements respond to a failure of a market participant
- the capacity of market participants to absorb additional liabilities, either through their own capital reserves or through accessing new sources of finance.

In the case of the pandemic an additional risk is that the failing retailer may have a high proportion of non or late paying customers and the transfer of these customers to the ROLR may place additional burden on the ROLR, because they would be consuming energy but not paying, which could potentially result in financial stress for the ROLR. Under normal circumstances retailers may disconnect non-paying customers,¹⁷⁴ however, this option is not available to retailers in the short term.¹⁷⁵ For this reason a number of retailers may fail, and as the proportion of customers who are not paying their bills on time concentrates with the ROLR, the risk for broader financial contagion and market risk increases.

7.3.2

Existing regulatory framework for exiting the market

This section sets out the existing regulatory framework for a failed retailer to exit the market through the ROLR mechanism. The failure of an electricity retailer is unlike the failure of most businesses in the economy because the regulatory arrangements quickly transfer its key assets (its customers) to another competitor.

Electricity is considered an “essential” service. It is therefore considered undesirable for customers to be disconnected for reasons outside their control, such as the insolvency of their retailer.¹⁷⁶ For this reason, the NERL sets out a mechanism to be followed in the event of the failure of a retailer, to ensure the orderly transfer of retail customers to new retailers without disruption of supply. This mechanism is known as the ROLR mechanism.¹⁷⁷

ROLR scheme under the NERL

The ROLR mechanism may be triggered if a retailer becomes insolvent, or does not meet the financial obligations required by AEMO, or ceases to be a Registered Participant in the wholesale market.¹⁷⁸ If the ROLR mechanism is triggered the customers of the failed retailer are immediately allocated to one or more other retailers who have volunteered to perform the role of the ROLR.¹⁷⁹ Transferred customers are placed on the standard or default retail contract of these retailers, which typically have higher tariffs than market offers but may also

174 Subject to meeting the obligations in the NERL.

175 This is explained further in Section 7.1

176 Nevertheless, the NERL do allow for the possibility of disconnection of a customer as a consequence of the failure of its retailer.

177 The ROLR scheme under the NERL is managed by the AER and applies in New South Wales, Victoria, Queensland, Tasmania, South Australia and the Australian Capital Territory. In Victoria the Essential Services Commission manage its own ROLR scheme.

178 The NERL defines a number of triggers of a “ROLR event” (s. 122): revocation of retailer’s authorisation; market suspension (AEMO initiated); appointment of an insolvency official; an order to wind up the retailer is made or a resolution is passed to winding up the retailer; the retailer ceases selling energy (for reasons other than the transfer or surrender of its retailer authorisation; or transfer of all or some of its customers to another retailer; or selling or otherwise disposing of all or part of its business); any other event or circumstances prescribed in the National Regulations.

179 Currently this role is played by AGL (NSW, QLD, SA), Origin (ACT, NSW, QLD, SA), EnergyAustralia (NSW), ActewAGL (ACT), and Aurora (Tasmania). Source: AER [Register of RoLRs](#)

have stronger consumer protections (as these contracts use the model terms and conditions for standard retail contracts).¹⁸⁰

ROLR designation

The NERL requires a "default ROLR" to be appointed by the AER ahead of time for each electricity connection point.¹⁸¹ In practice, default ROLRs are generally the original incumbent retailers in the area who previously acted as ROLRs under the former jurisdictional schemes. Retailers can also submit an expression of interest to the AER to become an 'additional ROLR'. The AER has established two categories of additional ROLRs:

- the 'firm offer' category where retailers pre-commit to the terms and conditions under which they would be appointed as a ROLR
- the 'non-firm' category where retailers register their interest in being a ROLR but do not commit themselves to acting in that role.

The AER must maintain and publish a register of ROLRs.¹⁸² When a ROLR event is triggered, a designated ROLR is appointed for each electricity connection point, and is responsible for taking on new customers and facilitating customer transfers from the failed retailer. Under the NERL, the default ROLR is taken to be appointed as the designated ROLR, unless the AER appoints a registered ROLR as a designated ROLR in respect of a ROLR event before the event actually occurs, and notifies AEMO before the transfer date.¹⁸³

When determining whether to appoint a registered ROLR as the designated ROLR, the AER must consider:

- whether the registered ROLR has a ROLR cost recovery scheme, and if so what costs are recoverable and what is the amount of those costs
- the imminence of the ROLR event
- the extent to which the retailer has the necessary organisational and technical capacity to meet the obligations of a ROLR
- the extent to which the retailer has adequate resources or access to adequate resources so that it will have the financial viability and financial capacity to meet the obligations of a ROLR
- whether the retailer is suitable to be a ROLR taking into consideration the number and class of customers the retailer has and the areas which the retailer serves.¹⁸⁴

The AER has noted that the imminence of the ROLR event is a major factor in its selection of designated ROLRs for appointment. The earlier warning the AER has of an impending ROLR event, the more registered ROLRs it will be able to consider.¹⁸⁵

180 NERL, section 145.

181 NERL, section 125.

182 NERL, section 127.

183 NERL, section 132.

184 The AER can also take into consideration any other matters the AER considers relevant in the circumstances. NERL, section 133.

185 AER, Retailer of last resort statement of approach, November 2011.

Where there is less than a few hours' notice of a ROLR event, the AER has indicated it is most likely to appoint default ROLRs. With short notice (ie, up to 48 hours), the AER suggests it may also be able to consider additional ROLRs with firm offers. Additional ROLRs with firm offers have agreed not to be consulted prior to being appointed as designated ROLRs (up to the maximum permitted by their terms and conditions). Where the AER has more than 48 hours' notice of a ROLR event it may consider (and consult with) other registered ROLRs. This would include non-firm additional ROLRs who have not agreed to be designated without further consultation at the time of an event.¹⁸⁶

Cost recovery

The designated ROLR retailer does not take on any of the liabilities or obligations of the failed retailer. However, the receiving retailer will face:¹⁸⁷

- increased expenditure due to increased purchases on the wholesale market, increased network-related costs, and obligations under environmental schemes
- increased prudential obligations with AEMO (that is, higher credit limits and increased credit support) and may be required to meet additional prudential obligations by distribution network businesses
- the need to obtain hedge contract cover for the wholesale purchases of the new customers
- various administrative tasks, such as providing written notices to all the transferred customers (notifying them of the transfer and providing an opportunity to exit standard contracts), and keeping customer service staff informed and able to communicate effectively to confused customers.¹⁸⁸

The NERL incorporates a process through which a designated ROLR can apply to the AER to recover the costs that it incurs on or after a ROLR event.¹⁸⁹ A default ROLR may also apply to recover costs incurred in preparing for ROLR events.¹⁹⁰ On receipt of an application the AER must determine a "ROLR cost recovery scheme". The AER must be guided by the following principles:

- the registered ROLR should be provided with a reasonable opportunity to recover the reasonable costs that it incurs with respect to the ROLR scheme
- the recovery of costs should allow for a return commensurate with the regulatory and commercial risks with respect to the ROLR scheme
- the registered ROLR will itself bear some of the costs, in proportion to its customer base.¹⁹¹

¹⁸⁶ Ibid.

¹⁸⁷ See AEMC NEM Financial Market Resilience, 2015, page 28.

¹⁸⁸ The [Australian Energy Council](#) has raised the "considerable administrative burden" on the receiving retailer associated with a ROLR event.

¹⁸⁹ NERL, section 166. Under the AER's ROLR guidelines, applications must be made within nine months of the relevant ROLR event. See AER, Retailer of last resort statement of approach, November 2011.

¹⁹⁰ NERL, section 166(3)(a).

¹⁹¹ NERL, section 166(7).

The AER is required to make a determination on how much of a ROLR's costs should be recovered from one or more DNSPs, who are entitled to recover this cost from their customers.¹⁹²

AER statement of approach

The AER has published a ROLR statement of approach, which includes some guidance as to the general principles for cost recovery scheme determinations.¹⁹³ In summary, the AER's guidance on applying the principles for cost recovery are:

- actions of the designated ROLR in performing its obligations should be prudent and minimise the costs incurred in the circumstances
- limits will not be imposed on the classes or magnitude of costs as the ROLR should be provided with reasonable opportunity to recover its reasonable costs incurred
- cost recovery should not result in onerous price shocks for small customers, as this may present hardship issues for some customers
- cost recovery should occur over the largest customer base which is appropriate to the ROLR event.¹⁹⁴

The AER also provided examples of how it may exercise its powers in hypothetical "ROLR cost recovery scheme" determinations:

- in the event of a small retailer failure, the customers of the failed retailer should bear a greater proportion of the costs (such as administrative costs) with the remainder recovered through a distributor payment
- in the event of a large retailer failure, the AER may opt for the entire cost recovery to be managed through distributor payments to spread the costs across a wide customer base and minimise impacts. The AER may also consider recovering ROLR scheme costs through a combined upfront fee and a DNSP payment determination.¹⁹⁵

Credit support requirements

A participant must provide an amount of credit support to AEMO which is at least equal to its maximum credit limit (MCL).¹⁹⁶ AEMO can change a participant's prudential settings at any time with one business day's notice.¹⁹⁷ Any changes that result in an increased MCL require the participant to increase its level of credit support by no later than the effective date of the MCL.

A failure by the retailer to provide this increased credit support by the relevant time constitutes a default event.¹⁹⁸ AEMO may then issue a default notice to the participant. If this

¹⁹² NERL, section 167.

¹⁹³ AER, Retailer of last resort statement of approach, November 2011.

¹⁹⁴ Ibid, p.19.

¹⁹⁵ Ibid.

¹⁹⁶ NER, clause 3.3.5. AEMO determines an MCL for each participant based on a two per cent probability that a participant's outstandings to AEMO will exceed its MCL by the time the participant is suspended from the market, restricting residual settlement risk to very low probability events. The two per cent probability is referred to as the NEM prudential standard.

¹⁹⁷ NER, clause 3.3.8(m).

¹⁹⁸ AEMO's current prudential monitoring process allows credit support to be delivered by 10.30am Sydney time on the MCL effective date.

is not rectified by 1pm the following day (or a later deadline agreed to in writing by AEMO), then AEMO may issue a suspension notice, under which AEMO notifies the market participant of the date and time from which it is suspended from trading, and the extent of that suspension.¹⁹⁹

Participants also have a trading limit, which is currently set in relation to their MCL.²⁰⁰ The margin between the credit and trading limits is designed to cover AEMO's potential liabilities during a seven-day reaction period, representing the expected amount of time required to suspend a participant. If a participant exceeds its trading limit it would be required to provide additional cash or credit support to AEMO.

Since the ROLR acquires responsibility for the acquired customers from the time of the transfer date specified in the ROLR notice, its outstandings to AEMO will increase over the following month as energy is consumed.²⁰¹ Nonetheless, it is required to post credit support for the full MCL when notified by AEMO, which could be immediately, or up to a week after acquiring the additional customers.

7.3.3

Ofgem's Supplier of Last Resort (SOLR) scheme

This section sets out a broad overview of how the UK retail market mitigates the negative effects of retailer failure through its Supplier of Last Resort (SOLR). This allows comparison to another contestable retail market that has had significant experience recently with its equivalent to the NEM ROLR scheme.

The number of suppliers in the retail energy market in the UK has increased significantly over the last eight years, with a peak of 70 active suppliers in 2018.²⁰² Ofgem noted this has brought benefits to UK consumers through increased price competition and pressure on incumbent suppliers to improve their customer service offering. However, there has also been an increase in supplier failures and inadequate customer service provision in certain cases.²⁰³

Between June 2018 and June 2019, twelve licensed suppliers exited the retail market, nine of them through the SOLR process. These nine SOLR events accounted for 845,000 customer transferrals to seven different SOLRs. Ofgem has noted that several factors contributed to these failures including poor hedging practices which were exposed when wholesale prices rose in the second half of 2018, partly due to 'Beast from the East' weather conditions.²⁰⁴ Following this period of net supplier exits there were 64 active licensed suppliers.

Despite these supplier failures, market concentration continues to fall in the UK. In addition to the regular acquisition of customers via switching, several medium suppliers increased

199 NER, clause 3.15.21(c).

200 NER, clause 3.3.10.

201 NERL, section 140.

202 The market share of the six largest suppliers has decreased and now almost 30% of customers get their energy from small and medium suppliers.

203 Ofgem, Consultation – Supplier Licensing Review – Ongoing requirements and exit arrangements, October 2019.

204 Ofgem, State of the Market 2019, 2019, p.29.

their customer base by absorbing customers from small suppliers via corporate transactions or after being appointed as SOLR.²⁰⁵ This included OVO, which has recently joined the NEM as OVO Energy.

Ofgem's SOLR selection criteria sets out what is likely to be considered when assessing which suppliers to direct to be a SOLR. This criteria includes:

- Other things being equal, preference to those suppliers who volunteer for the role of SoLR. They consider that customers' interests will be best served by a supplier that wants to be a SOLR.
- Preference will normally be given to those suppliers who state that they will not make a claim for last resort supply payments. They expect an efficient SOLR to be able to cover its own costs and not rely on additional payment through the levy arrangements.
- A SOLR should have robust arrangements in place that will enable it to supply the failed supplier's customers economically and efficiently. Ofgem will not issue a last resort supply direction to a supplier that it considers may not be able to supply the acquired customers in addition to its existing customers.
- A SoLR must be able to bring the customers onto the SOLR's own systems promptly. Ofgem consider this to minimise disruption to customers of the failed supplier (e.g. enable them to be billed) and other industry participants.
- A failed supplier's customers should not generally expect to be protected from paying increased prices. Ofgem consider continuity of supply is its primary interest but it may be appropriate in the overall interests of consumers for some steps to be taken to address the implications for particular customer groups associated with loss of a credit balance.²⁰⁶

Ofgem has noted that although exit is a normal occurrence in any competitive market, in the UK retail energy market, supplier failure can be disruptive for customers of these suppliers. The SOLR process is designed to minimise such disruptions, but it can affect customers of other firms if it generates costs that are mutualised across the industry (for example, payments due under government schemes and/or significant credit balances that the appointed SOLR can make a claim for). Ofgem launched a Supplied Licensing Review in 2018 in order to promote higher financial and risk management standards for all suppliers. Effective from July 2019, Ofgem has put in place more robust entry requirements and is continuing to work on ongoing monitoring requirements and exit arrangements.²⁰⁷

7.3.4

AEMC NEM Financial market resilience review

In 2015 the Commission published the NEM financial market resilience final report. The Commission concluded that while the NEM's risk management practices are well designed and established, a threat to financial stability in the NEM could arise if a large retailer experienced financial distress. This is because of the significant financial obligations that would be placed on a retailer of last resort when it acquires a large number of customers,

²⁰⁵ Ibid, p.31.

²⁰⁶ Ofgem, Guidance on supplier of last resort and energy supply company administration orders, 21 October 2016.

²⁰⁷ Ofgem, State of the Market 2019, 2019, p.30.

which would need to be met in a very short timeframe. The Commission made recommendations to address this scenario. The recommendations that the Commission considers are relevant to the current circumstances include:

1. Four recommendations to improve the ROLR scheme, which targeted the cash flow and additional credit support challenges faced by a ROLR. The Commission considered changes could allow financial shocks to the NEM to be absorbed more readily through a more effective sharing of the risk across the market. They would also allow the ROLR scheme to operate more effectively in a broader set of circumstances. These recommendations were:
 - Greater clarity of cost recovery arrangements to give the ROLR greater certainty that it can quickly recover its costs, by clarifying the type of costs allowed and enabling the AER to undertake a fast track cost recovery process where costs are clearly identifiable and quantifiable.
 - Delayed designation of ROLRs: the AER should be able to delay the designation of a ROLR by 24 hours following a ROLR event. This increases the potential for the AER to spread the allocation of a failed retailer's customers across multiple ROLRs, by giving them more time to decide which retailer(s) should be appointed ROLR(s).
 - Delay the requirement for ROLR to provide credit support to AEMO and DNSPs associated with the additional customers. This gives the ROLR more time to meet credit support provision in relation to ROLR customers, which may be significant.
 - Enhancements to the way ROLR arrangements apply to very large customers (those with consumption of at least 10GWh per annum), including creating incentives for very large customers to choose their own alternative retailer should a ROLR event occur. This is likely to reduce the financial burden on the designated ROLR of increased cash flow and credit support obligations resulting from very large customers.
2. The ability and framework for not suspending a participant, or parts of its activities, from the market, to be clarified in the NER. This change would be beneficial for financial system stability to allow generation assets to remain operating in the market in a ROLR situation. A draft rule which reflected these recommended changes to the NER was published with the final Report.
3. That the introduction of additional regulatory measures for identifying and mitigating potential risks to financial stability would be beneficial. The report focused on risks originating from the spot market, such as insufficient hedging in high wholesale priced environments.
4. That there is a need to be better prepared to respond to the failure of large participants. The report identified that a participant with a large electricity retail business experiencing financial distress or failure could have significant flow on effects to other participants, threaten the financial stability of the NEM, and result in disruption to consumers. Given the breadth of impacts of such a situation, the Commission recommended the Chair of the COAG Energy Council should be the ultimate decision maker. To assist in decision-

making, the Commission recommended relevant market regulatory bodies provide advice in a coordinated way using their existing powers, through a 'NEM Resilience Council'. Additional detail on the ROLR recommendations is set out in Appendix A.

7.3.5 Analysis and recommendations

Under normal circumstances, the ROLR mechanism has worked effectively for the failure of small retailers. It has been invoked several times in the history of the NEM²⁰⁸ without interruption in service for end-use customers and without wider impacts on the retail market. However, to date, the ROLR events that have occurred have been relatively small—the largest, in the case of Jackgreen, involving the transfer of around 67,500 electricity customers,²⁰⁹ and, in the case of the two most recent ROLR events, no customer transfers at all.

However, as highlighted in section 7.3.1 above, the pandemic has heightened the risk of retailer failures. This section provides the Commission's analysis and recommendations to improve outcomes under the ROLR process if retailer failures occur and to prevent the potential for financial contagion from their occurrence.

Consumer experience

The designated retailer is required to publish a notice of the ROLR event on its website and organise a live information service or recorded message on its telephone line regarding the event.²¹⁰ The designated retailer will send written communication regarding the event to the customers of the failed retailer.²¹¹

The failure of a retailer in the NEM and the transfer of customers across to a designated retailer would likely be a sudden and disruptive process for customers. Clear communication would initially be difficult as it would take time for the customer support call centres of the designated retailer to be updated with relevant information. A delay in designation of a ROLR, as recommended by the Commission in 2015, may increase the time a ROLR has to inform customer support staff if it is in communications with the AER throughout the appointment process.

The AER has the ability to negotiate the terms and conditions of a potential cost recovery scheme with registered ROLRs in the process of designating a ROLR. For example, the AER can designate a ROLR based on its willingness to bear a higher share of the cost. The AER has also indicated that one of the objectives of the ROLR scheme is to protect customers' interests with respect to price through competition in the ROLR appointment process.²¹²

The failed retailer's customers may be exposed to higher prices in transferring to the designated retailer's standard or default offer. Additionally, cost recovery schemes may place

208 Including Energy One (2007), Jackgreen (2009), Go Energy (2016) and Urth Energy (2017).

209 This included New South Wales with 47,000 customers (EWON, Jackgreen – the failure of an energy retailer, September 2010, p.1.), Queensland with 17,500 customers (EOQ, Annual Report 2010, p.10.) and Victoria with 3,000 customers (EWOV, Submission to the AEMC First Interim Report - NEM financial market resilience, p. 3.)

210 Sections 139 and 163(b)(ii) of the NERL.

211 AER, Retailer of Last Resort Plan, July 2015, p.17.

212 AER, RoLR final statement of approach, Nov 2011, p. 3.

a fee on all customers within certain DNSP areas. The cost increase due to both of these factors may place further pressure on consumers' ability to pay their electricity bills. This may lead to higher levels of electricity customers in financial stress seeking access to payment plans and hardship arrangements.

Proposed changes to requirements for the transferred small customers to be placed on a standard or default contract offer

A ROLR event under the current provisions in the NERL would result in both paying and non-paying small customers being automatically placed on a ROLR deemed small customer retail arrangement, on the terms and conditions of the receiving retailer's standing or default offer contracts. The prices applicable to the RoLR deemed small customer retail arrangement are the relevant designated RoLR's standing offer prices, with any variations in accordance with or consequent on the applicable ROLR cost recovery scheme.²¹³

The Commission considers that the obligation for customers to be transferred to the designated RoLR's standard retail contracts should be amended. Registered ROLRs should have the ability to submit, for the AER's approval, a market offer to be used for ROLR customers. The AER would assess the benefits of any such market offer (in relation to tariffs and non-price terms and conditions) against the tariffs and non-price benefits of the ROLR's standard retail contract. If the AER has approved a ROLR's market offer, the customers of a failed retailer would be placed onto this offer instead of a standing or default offer.

The Commission considers this change will give the AER greater ability to protect customers' interest with respect to price through competition in the ROLR designation process. This is particularly important because (as highlighted in Chapter 3) it often takes a number of years for customers to shift away from standard contracts onto lower priced market offer contracts. The Commission also considers competition in the ROLR appointment process is needed in order to realise the benefit of this change. Given the 'Big 3' retailers are the only registered ROLRs for the majority of the NEM, a reduction in the barriers to increased retailer participation in the ROLR scheme is also required, as addressed below.

RECOMMENDATION 1: REMOVE ROLR REQUIREMENT FOR SMALL CUSTOMERS TO BE PLACED ON THE DEFAULT OFFER

The Commission recommends that the ROLR regime is amended to remove the requirement for the customers of a failed retailer to be transferred on to the standard retail contract of the designated ROLR. The Commission considers that there should be an option for registered ROLRs to seek pre-approval from the AER of a market offer for ROLR customers. If the AER approved such a market offer, the customers of a failed retailer would be placed onto this offer instead of the ROLR's standard retail contract.

This is particularly important because the transfer of customers onto default offers, instead of lower priced market offers, may lead to higher levels of electricity customers in financial

²¹³ NERL, section 145.

stress seeking access to payment plans and hardship arrangements.

Market structure and conditions

Given the heightened risk of ROLR events occurring due to the pandemic, the current ROLR framework may have long-lasting impacts on market structure and conditions. Specifically, over the past ten years the retail sector in the NEM has gradually become more competitive, with 40 active retail electricity brands and with smaller retailers consistently gaining market share from the 'Big 3' incumbent retailers.²¹⁴

The current registered ROLRs are limited to the 'Big 3' retailers for the majority of the NEM.²¹⁵ The failure of a number of retailers would therefore reduce competition in the market because the failing retailer's customers would be transferred to the 'Big 3' retailers. Such an event would quickly reverse many of the structural competitive gains that have been made in the market over the last decade.

The Commission considers that the ROLR framework should ensure the smooth transfer of customers from a failed retailer to a designated ROLR without loss of supply, and in a process that ensures financial stability is maintained. However, it is also important that, where circumstances permit, the ROLR framework does not decrease the long term consumer benefits of a competitive retail market

Under normal conditions, even unusually higher utilisation of the ROLR framework does not have to result in increases in market concentration, as highlighted by the recent UK experience. To facilitate this, changes should be made to the ROLR framework that attempt to address the barriers to additional retailers being involved in the ROLR scheme.

The Commission considers that ROLR recommendations, detailed in section 7.3.2 above, generally remain fit for purpose. These changes seek to address the cash flow and additional credit support challenges faced by a ROLR. These challenges act as barriers to additional retailer involvement in the ROLR scheme. These changes also seek to increase the time available to the AER to make a ROLR appointment decision. This gives the AER greater ability to appoint multiple ROLRs if appropriate. Further discussion of these recommendations is included in Appendix A.²¹⁶

The ROLR scheme in the NECF applies to both electricity and gas. As a number of retailers have both electricity and gas customers, a retailer failure may create financial system instability across both electricity and gas markets. The Commission considers it appropriate that recommended changes to the ROLR scheme extend to a retailer failure in gas markets to provide for a simpler and more comprehensive implementation of these recommendations.

²¹⁴ For more information see Chapter 3.

²¹⁵ Aurora and ActewAGL currently play this role in Tasmania and the Australian Capital Territory respectively.

²¹⁶ The appendix includes explanation of why the Commission does not consider the recommendation to enhance ROLR arrangements for 'Very large customers' remains fit for purpose.

RECOMMENDATION 2: NEM FINANCIAL MARKET RESILIENCE REVIEW - RECOMMENDED CHANGES TO THE EXISTING RETAILER OF LAST RESORT SCHEME

A number of changes recommended to the ROLR scheme, as outlined in the NEM financial market resilience review, target the cash flow and additional credit support challenges faced by a ROLR. These changes would allow financial shocks to the NEM to be absorbed more readily through a more effective sharing of the risk across the market. They would also allow the ROLR scheme to operate more effectively in a broader set of circumstances.

In summary, the recommendations propose changes to the ROLR scheme to reduce the impact of increased cash flow and/or credit support requirements, through:

- Greater clarity of cost recovery arrangements to give the ROLRs greater certainty that it can quickly recover its costs.
- Delayed designation of ROLRs: the AER should be able to delay the designation of a ROLR by 24 hours following a ROLR event.
- Delayed requirements for ROLR to provide credit support to AEMO associated with the additional customers.

Method of implementing recommended ROLR changes

The Commission considers that as competition in the retail market develops over time and the number of retailers in the NEM continues to increase it will be important that the ROLR framework continues to evolve. The recent UK experience, detailed in section 7.3.3 highlights the importance of this as a sudden change in market conditions, in this case a period of high wholesale prices, may result in a significant number of retailer exits.

In order to make changes to the ROLR framework over time, the Commission considers that rather than amending the NERL to make the recommended changes, the ROLR provisions in the NERL should be removed and the provisions should be included in the NERR through rule changes. This will enable the Commission, based on rule change requests from stakeholders, to make changes as new issues are identified and market conditions change over time. This will allow the ROLR framework to continually be enhanced to ensure it remains fit for purpose.

The Commission considers this will increase industry confidence that the ROLR framework can be relied upon to maintain market stability in the event of a future crisis. By making the changes in the NERR, the Commission will also be able to carry out an additional consultation process on the ROLR changes, set out in the recommendations above, to make sure they best meet the NERO.

RECOMMENDATION 3: THE ROLR REGIME TO BE REMOVED FROM THE NERL AND INCLUDED IN THE NERR

The Commission considers that as competition in the retail market develops over time and the number of retailers in the NEM continues to increase it will be important that the ROLR framework continues to evolve.

In order to make changes to the ROLR framework included in this report and over time, the Commission considers that rather than amending the NERL to make the recommended changes, the NERL should be amended to remove the ROLR provisions from it, and the provisions should be included in the NERR through rule changes.

Financial contagion

The application of the ROLR scheme in its current form could cause financial contagion if the failed retailer has a substantial retail load or if multiple smaller retailers fail in a short period of time. This is because of the immediate and substantial financial obligations imposed on the ROLR following the transfer of the failed retailer's customers.

When acquiring the additional customers and their load, the ROLR(s):

- could face considerable increases in the number of customers who are paying bills late or not paying bills at all
- are required to provide increased credit support within a couple of days to AEMO to cover the potential spot market energy costs of the acquired customers
- would likely need to obtain additional hedge cover to reduce exposure to the spot price for the load of the acquired customers
- could face considerable increased wholesale energy costs, particularly if a retailer failure occurred at a time of high spot prices
- could be constrained in its ability to pass these increased costs on to customers due to retail price regulation or competitive pressures
- would be constrained by the significant timing gap between when the ROLR has to meet these obligations and when the ROLR is able to recover such costs.

The risk of financial contagion may be exacerbated if the market conditions that lead to the retailer defaulting are also affecting the designated ROLR. In the current pandemic circumstances the Commission considers that all retailers are being affected by the existing market conditions, of increased customers entering financial stress. However, it appears to date that the large retailers, who would play the role of designated ROLR, are not being impacted by these conditions to the same extent due to their higher retail margins and greater access to credit, as explored in section 7.2.2.

This may change if the financial position of the 'Big 3' deteriorates, before stable economic conditions return post pandemic, if an increasing amount of their customers enter financial stress and seek access to payment plans and hardship arrangements. In these circumstances there is a prospect that a ROLR event, or multiple events, may transfer an amount of non-

paying customers that even a 'Big 3' retailer can not absorb as it will already be dealing with its own customers in financial stress. This will occur at the same time as retailers are expected not to disconnect any customers throughout the pandemic.

If the ROLR is unable to meet its increased costs and credit support obligations, it may also be suspended from the NEM. This could trigger a "cascading retailer failure", as other retailers would be appointed as ROLRs and may fail for the same reasons. In these circumstances, it is possible that there may be no single retailer that can effectively perform the role of designated ROLR. Given this context it may be appropriate to have measures in place to mitigate this risk of financial contagion.

In situations with extenuating circumstances that heighten the risk of financial contagion an increased number of registered ROLRs may reduce the risk of financial contagion in the NEM. An increased number of registered ROLRs, of varying size, would increase the AER's ability to designate multiple ROLRs. This would increase the ROLR scheme's ability to absorb the failure of a large retailer, or multiple smaller retailers, while maintaining financial stability.

Having an increased number of registered ROLRs would also facilitate better outcomes for consumers by facilitating competitive tension in the ROLR appointment process. This is another reason for adopting the Commission's ROLR recommendations.

Responding to the failure of large participants

The 2015 review considered that prolonged periods of high wholesale prices was the principal risk to financial stability because this would cause the failure of participants with inadequate risk management practices and potentially lead to the failure of a large participant. The current experience highlights how an economic shock (external to the industry) which leads to increased customer non-payment and late-payment can intensify retailer cash-flow risks and financial stability of the NEM.

Throughout this crisis, market bodies have provided strategic information and advice to allow the COAG Energy Council to make required decisions to ensure financial stability. Governments and the ENA have reduced the size of the cash flow burden on retailers through increases in financial assistance and the ENA relief package. While these measures will make a major contribution to reducing contagion risks it cannot be known ex ante if they will be effective.

If one large retailer or multiple small retailers failed these measures would not mitigate the detrimental impact to market structure and consumer outcomes that may occur under the current ROLR scheme. Many of the structural competition gains that have been made over the last decade with the transfer of customers from the 'Big 3' retailers may be reversed if such an outcome occurred. It would also likely result in a large number of customers being placed on higher priced default market offers.

Given these consequences, consideration should be given to the need for last resort financial assistance for retailers to manage cash flow risks that are triggered in exceptional circumstances. In particular, these measures should be available when there is a shock to the system which is external to the electricity sector, such as the pandemic. In these cases the usual efficient allocation of cash-flow risk to electricity retailers is no longer appropriate. The

Commission notes that this is distinct from the scenarios previously considered in the NEM financial market resilience review of inadequate risk management practices by retailers in high wholesale price environments.

The Commission considers that if the ROLR framework is enhanced, through the recommendations included in this report, then there may be a reduced need for any additional measures to respond to a future crisis. However, this is not possible in response to the pandemic because these changes require law and rule changes which could not be achieved within the necessary time frames. A detailed consideration of last resort financial assistance for the industry, by the COAG Energy Council, is therefore warranted.

RECOMMENDATION 4: COAG ENERGY COUNCIL TO CONSIDER SHORT TERM MARKET STABILITY MEASURES.

Throughout this crisis, market bodies have provided strategic information and advice to allow the COAG Energy Council to make required decisions to ensure financial stability. This has contributed to the development of short term response measures across the industry. While these measures will make a major contribution to reducing the risk of financial contagion and poor market structure and consumer outcomes, from use of the current ROLR scheme, it cannot be known ex ante if they will by themselves be effective. Given this, it is important the COAG Energy Council consider whether it is appropriate to have additional short term measures to maintain market stability.

Leading indicators of retailer financial distress

The Commission considers that the previous recommendation on the introduction of additional regulatory measures for identifying and mitigating potential risks to financial stability continues to be beneficial. In the current circumstances, different indicators are likely to be necessary to provide advanced notice of retailer failure, in particular, because retailer failures are most likely to arise from cash flow risk. Given this, a set of leading indicators tailored to demonstrate revenue and cost risks should be developed and provided to the Council of Australian Governments (COAG) Energy Council and Senior Council of Officials (SCO) by the market bodies on a monthly basis. By providing advanced warning of retailer failures, the COAG Energy Council would have more time to make informed decisions regarding large or multiple retailer failures.

In light of concerns regarding retailer solvency and to monitor compliance with the Statement of Expectations, the AER has significantly increased the frequency with which it collects information on the number of customers on payment plans and hardship arrangements and the level of customer debt. This information will be reported at an aggregate level to the COAG Energy Council and SCO on a monthly basis. As set out in section 7.2.1 above, this information is designed to provide advanced notice of financial distress of retailers.

The Commission recommends that the AER consider submitting a rule change request to provide the AER with information gathering powers for identifying risks to financial stability. If submitted, this rule change request would likely build on information the AER is currently

collecting and providing to COAG Energy Council and SCO on a monthly basis. The AER may need to consider the extent to which any existing information gathering powers are already fit for purpose and whether increased reporting should be ongoing or only when triggered by specific circumstances (such as when disconnections are restricted and government requires the closure of economic activity).

RECOMMENDATION 5: ADVANCED NOTICE OF RETAILER DISTRESS

The Commission recommends that the AER consider whether a rule change could provide it with an additional ability to gather information to identify risks to retailer financial stability, and if so, submit a rule change request. If submitted, this rule change request would likely formalise and build on information the AER is currently collecting and providing to COAG Energy Council and SCO on a monthly basis. The AER may need to consider whether increased reporting should be ongoing or only when triggered by exceptional circumstances which create heightened risks to market stability.

7.4 Embedded networks

Sections 7.1 to 7.3 have evaluated the effect of the pandemic on consumers that receive their energy from authorised retailers and are provided network services by licensed distribution network service providers. However, it is important to acknowledge that not all customers within the NEM are provided electricity through such means. A growing number of customers are provided energy through embedded network arrangements.

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 another distribution or transmission system through a parent connection point. Generally, the exempt network service provider also purchases electricity at the parent connection point and on-sells it to customers at child connection points within the embedded network. Such sales are referred to as being 'off-market', in that they are not conducted through the NEM. On-selling entities must hold a retailer authorisation from the AER or be exempted by the AER from having to hold a retailer authorisation.

Common examples of embedded networks include shopping centres, retirement villages, apartment complexes and caravan parks. Customers within these networks are likely to be particularly vulnerable to the economic and health effects of the pandemic because they disproportionately consist of small business customers (shopping centres), the elderly (retirement villages), renters (apartment complexes) and low income customers (caravan parks). This will likely result in a greater level of non-payment than market wide and place additional financial stress on the embedded network suppliers.

The Commission has previously found that the current regulatory arrangements for embedded electricity networks are not fit for purpose and has recommended a suite of law and rule changes to fix these issues. The additional stress from the pandemic will test the

already-limited consumer protection framework within embedded networks. The Commission has concluded gaps exist in relevant consumer protections in embedded networks, specifically in relation to:

1. disconnections
2. life support arrangements
3. information provision
4. retailer of last resort arrangements
5. access to concessions and ombudsmen schemes.

Embedded network customers do not receive the same standard of consumer protection as all other small consumers. The recommendations outlined in the review Updating the regulatory frameworks for embedded networks (and highlighted in 2019 Retail energy competition review) would fix this. However, this is not an option in the short term because the reforms are significant.

RECOMMENDATION 6: PROTECTING CONSUMERS IN EMBEDDED NETWORKS

The Commission recommends that the COAG Energy Council, market bodies and jurisdictional government and regulatory bodies implement the comprehensive package of changes to laws, rules and regulations to protect consumers and improve choice in embedded networks, as recommended in the embedded networks review completed in 2019*:

- COAG Energy Council agrees changes to electricity and energy retail laws
- South Australian Parliament makes law changes; South Australian Minister makes rule changes
- AER and AEMO update guidelines, systems and procedures to reflect changes to the laws and rules
- State governments, regulators and ombudsmen enact required changes to jurisdictional regulations.

Note: *<https://www.aemc.gov.au/market-reviews-advice/updating-regulatory-frameworks-embedded-networks>

7.5 Conclusion

This Chapter has worked through the impacts of the pandemic on consumers, retailers and the retail market more broadly. It has identified and evaluated the actions of governments, market bodies and industry to meet consumer needs during the pandemic. The Commission considers the greatest areas of concern are the increased financial distress of consumers due to lower income levels and the associated effects this has on their ability to pay energy bills, and retailers' ability to deal with cash-flow risk as a result. A summary of the Commission's analysis and total set of recommendations to address these issues in both the short and long term are set out in Table 7.4 below.

Table 7.4: Summary of analysis and AEMC's recommendations and actions

TARGET AREA	SHORT-TERM RESPONSE	LONG-TERM CONSIDERATIONS
<p><u>First line of defence:</u></p> <p>Reducing large scale consumer financial distress.</p> <p>Monitoring leading indicators of retailer financial distress.</p>	<p>The AER's statement of expectations, and increase in payment assistance measures by jurisdictions helps consumers by:</p> <ul style="list-style-type: none"> ensuring they will not be disconnected without their agreement, before 31 July 2020, and potentially beyond contributing towards their energy bills and reducing the debt that consumers would otherwise be accruing. <p>The Commission considers these measures significantly reduce the impacts of the pandemic on energy consumers, and has not made any further recommendations or actions.</p> <p><u>Leading indicators of retailer financial distress</u></p> <p>The AER has significantly increased the frequency with which it collects information on the number of customers</p>	<p>The Commission considers this crisis has highlighted the importance of payment assistance measures for consumers in financial distress, and notes that jurisdictions may want to consider how effective the schemes have been and if improvements could be made.</p>

TARGET AREA	SHORT-TERM RESPONSE	LONG-TERM CONSIDERATIONS
	<p>on payment plans and hardship arrangements, and the level of customer debt.</p> <p>The Commission recommends that the AER consider whether a rule change could provide it with an additional ability to gather information to identify risks to retailer financial stability, and if so, submit a rule change request. If submitted, this rule change request would likely formalise and build on information the AER is currently collecting and providing to COAG Energy Council and SCO on a monthly basis. The AER may need to consider whether increased reporting should be ongoing or only when triggered by exceptional circumstances which create heightened risks to market stability.</p> <p>Recommendation 5: Advance notice of retailer distress.</p>	
<p><u>Second line of defence:</u></p> <p>Sharing the burden of cash-flow risk (retailers carry the credit and cash-flow risks for the entire electricity sector).</p> <p>Improving ROLR framework for consumer and market outcomes.</p>	<p>1. The ENA has provided a package of measures that provide direct support for affected small business customers impacted by COVID 19, as well assisting large and small retailers, so they can support impacted customers.</p> <p>2. Both the AER and AEMO have submitted rule change requests to improve cash flow outcomes for retailers:</p> <ul style="list-style-type: none"> • deferral of network charges for 6 months • 	<p>The Commission considers the deferral of network payments, as provided by the ENA relief package and may be further provided by the AER rule change request if made, does not impact the network business' total revenue, only its cash flow in the short term, and it may be appropriate to have a permanent mechanism available for similar events in the future.</p> <p>Action 1: The Commission to review the effectiveness of cash flow burden sharing measures employed during the pandemic.</p>

TARGET AREA	SHORT-TERM RESPONSE	LONG-TERM CONSIDERATIONS
	<ul style="list-style-type: none"> delay the implementation of five-minute settlement and global settlement. <p>In assessing these rule change requests the Commission will take into account analysis on risk allocation, financial assistance measures, the ENA relief package and the AER's statement of expectations.</p> <p>3. Australia's energy market bodies (AER, AEMC, AEMO) are collaborating to prioritise work to reduce the cash flow and capability requirements of industry in dealing with regulatory reform processes.*</p>	<p>Improvements to the RoLR process</p> <p>The pandemic has heightened the risk of retailer failures. The Commission makes recommendations to improve outcomes under the RoLR process if retailer failures occur and to prevent the potential for financial contagion from their occurrence.</p> <p>Recommendation 1: Remove RoLR requirement for small customers to be placed on the default offer.</p> <p>Recommendation 2: NEM financial market resilience review - Recommended changes to the existing Retailer of Last Resort scheme.</p> <p>Recommendation 3: The RoLR regime to be removed from the NERL and included in the NERR.</p>
<p><u>Third line of defence:</u> Market resilience and financial stability.</p>	<p>Throughout this crisis, market bodies have provided strategic information and advice to allow the COAG Energy Council to make required decisions to ensure financial stability. This has contributed to the development of short term response measures across the industry. While these measures will make a major contribution to reducing the risk of financial contagion and poor market structure and consumer outcomes, from use of the current RoLR scheme, it cannot be known ex ante if they will by themselves be effective. Given this, it is important the COAG Energy Council consider appropriate short term measures to maintain</p>	<p>The Commission considers that if the RoLR framework is enhanced, through the recommendations included in this report, then there may be a reduced need for any additional measures to respond to a future crisis. However, this is not possible in response to the pandemic because these changes require law and rule changes which could not be achieved within the necessary time frames. A detailed consideration of last resort financial assistance for retailers, by the COAG Energy Council, is therefore warranted.</p>

TARGET AREA	SHORT-TERM RESPONSE	LONG-TERM CONSIDERATIONS
	<p>market stability.</p> <p>Recommendation 4: COAG Energy Council to consider short term market stability measures.</p>	
<p>Embedded network customers</p>	<p>The AER's Statement of Expectations includes 'exempt sellers' (embedded networks) when outlining principles that they must adhere to, including not to disconnect customers, without their permission, before 31 July 2020.</p>	<p>The Commission recommends that the COAG Energy Council, market bodies and jurisdictional government and regulatory bodies implement the comprehensive package of changes to laws, rules and regulations to protect consumers and improve choice in embedded networks, as recommended in the embedded networks review completed in 2019.</p> <p>Recommendation 6: Protect consumers in embedded networks.</p>

Note: *<https://www.aemc.gov.au/news-centre/media-releases/energy-market-bodies-respond-covid-19>

8 ELECTRIC VEHICLES

BOX 16: SUMMARY OF KEY FINDINGS

Context

- This chapter assesses whether retail energy competition is promoting innovation related to electric vehicles (EVs). This is an important time to look at EVs because the prevalence of EV use in Australia and around the world is growing due to declining cost and the introduction of government policies to reduce emissions in the transport sector.
- Given the considerable impact electrification of vehicles could have on the electricity system it is important that EVs are integrated efficiently into electricity markets and networks. This aligns with one of the Commission's five strategic priority areas for reform, the integration of distributed energy resources into the energy market system.
- Retailers are key players in the integration of EVs because of their role in facilitating the supply of electricity whilst managing the extent to which customers are exposed to cost reflective price signals. The timely development of supportive retail market regulation for this integration is essential because:
 - If EV charging adds to peak demand consumers are likely to bear the cost of additional network investment and higher wholesale prices.
 - Conversely, if integrated efficiently, EVs would create a flexible asset capable of being a valuable resource to increase the security and reliability of the system. This in turn could support the integration of an increasing share of renewables in the system.

Analysis

- The Commission's analysis indicates that while early in the uptake phase of EVs, the wide variety of retailer sizes, strategies and skills within the NEM is facilitating innovation and diversity in early EV offers. Encouragingly, some early offers seek to influence charging behaviour through price signals.
- These early offers will provide retailers with information to understand consumer preferences and tailor future offers before wider uptake of EVs begins. The volume and differentiation of offers in the market at such an early stage of uptake flags that retailers consider EVs to be a valuable opportunity for future business growth. This interest also highlights to the wider market the opportunity for retail entry specialising in EV offers.
- Given the importance of new and emerging retailers to innovation it is also important to consider if there are regulatory barriers that could be removed to support retailers making EV offers and facilitating the efficient integration of EVs. The Commission suggests that amendments to the small generation aggregator (SGA) framework may further facilitate innovation in EV charging services and could be made in alignment with other EV regulatory reform work programs. This could be an interim change towards

greater consumer level participation in energy markets contemplated by the ESB's two-sided markets work program.

- There are regulatory reforms that are currently being implemented and considered, within and outside the AEMC, that are important to facilitate the efficient uptake and use of EVs. Some of the regulatory reform programs include the:
 - Minimum DER technical standards rule change
 - DER DEIP DER and EV integration working groups
 - ongoing AEMO VPP trials
 - ESB's two-sided market work program.
- This body of regulatory work and industry collaboration will increase the ability of retailers to provide services to smooth any interaction between an EV consumer and the electricity system. This will assist in efficiently integrating EVs into the NEM for the benefit of all electricity customers.

As part of the AEMC's annual Retail energy competition review, the Commission typically focuses on a new or emerging technology and explores how it is interacting with retail energy markets. For example, last year's review explored the interaction of behind the meter battery technology with retail markets. The goals from this analysis are twofold:

1. To assess whether energy retailers are innovating in relation to the technology to provide customers with offers they want. Traditionally economists consider that a key benefit of contestable and competitive markets is that they provide incentives for businesses to innovate to provide new or diversified products to meet consumers needs. Picking a prominent new technology and assessing whether this is occurring assists our overarching assessment of the state of competition in the retail energy market.
2. To analyse if there are any retail regulatory barriers to innovation occurring. Assessing the barriers is important because as the policy adviser to governments and rule maker in the sector the Commission can then recommend rule changes to remove any barriers.

In this year's review the Commission will explore electric vehicles (EV) as the technology to research. This is an appropriate time to look at EVs because the prevalence of EV use in Australia and around the world is growing due to declining cost and the introduction of government policies to encourage uptake as part of broader transport sector climate change strategies.

Given the potential considerable impact electrification of vehicles could have on the electricity market it is important to assess how retail energy competition is resulting in innovation related to the efficient integration of electric vehicles into the electricity system. This is part of one of the Commission's five strategic priority areas of reform, the integration of distributed energy resources into the energy market system.

To inform this research and assessment, the Commission published an issues paper to seek stakeholder views. The Commission also sought retailers' views through its retailer survey and interviews, and held individual meetings with other interested stakeholders.

This chapter assesses this through setting out:

- the context for the analysis
- the role of retailers in the current retail market
- the regulatory environment for EVs
- EV value streams
- residential EV charging
- non-residential EV charging.

8.1 Context

This section provides an overview of the current uptake, forecast uptake, consumer attitudes, government subsidy schemes, charging infrastructure and behaviour, and other work programs relevant to this research at the AEMC and in the industry. This gives context to our assessment of the EV segment of the retail market later in the chapter.

8.1.1 Electric vehicle technology

The term 'electric vehicle' can be used to describe any vehicle that contains one or more electric motors that contribute, partly or entirely, to powering the vehicle. For the purposes of this Review, we will focus on the energy market implications for EVs that charge through the electricity system; namely, battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV). These two types of EVs will be referred to as EVs throughout the chapter.

The source of energy for BEVs is the electricity contained in the battery system which must be recharged when depleted. Whereas, PHEVs include an internal combustion engine (ICE) to extend driving range in addition to the battery system.²¹⁷

Australia currently has 22 battery and plug in hybrid electric vehicle models available and in 2020 it is expected that at least nine more models will be introduced.²¹⁸ The vehicle driving range varies between 200-650km for the BEVs currently available on the Australian market. The batteries in a BEV are typically larger than those in PHEVs which usually have between 20-60km all electric range.²¹⁹

EVs currently have higher purchase prices than comparable ICE vehicles. However, they are expected to decrease in price and improve in quality over time as automakers increase efforts to electrify fleets. A 2019 analysis, by Reuters, of 29 global automakers identified that they

²¹⁷ A competing technology to these EVs is fuel cell electric vehicles (FCEV), which can use a fuel cell powered by hydrogen, instead of a battery, to run its electric motor. FCEVs will not be covered by this review as they have a less direct interaction with the electricity system and development of FCEVs has progressed at a slower pace than plug in EVs. Australian EV Market Study, Energeia, May 2018, p.48.

²¹⁸ State of Electric Vehicles, Electric Vehicle Council, August 2019, p. 11.

²¹⁹ Ibid.

are planning to invest US\$300 billion in the electrification of vehicle models over the next five to ten years. Of that planned investment 45 per cent will be spent in China.²²⁰

The Covid-19 pandemic has added uncertainty to the pace of longer term vehicle electrification. For traditional automakers the ability to electrify their vehicle offerings by investing in research and development will be hampered by an economic slow down. This will be due to lower revenues and potentially reduced capacity to undertake the work. The extent to which this occurs is uncertain. Government support at this time through supply and demand side measures can help to ensure that the electrification of transport fleets continues.

Electric vehicles as an emissions reduction technology

The transport sector is the second largest source of emissions in Australia behind the electricity sector. In the year to June 2019 it accounted for 18.9 per cent of Australia's emissions.²²¹ EVs could play a significant role as a key emissions reduction technology for the transport sector to assist in achieving wider decarbonisation targets as they can be fuelled by low-emissions electricity resources and have no direct tail-pipe emissions. Furthermore, BEVs have a much higher energy efficiency compared to ICE vehicles.²²²

Along with transforming the transport sector, EVs also present a viable opportunity to decrease emissions within the electricity system by providing a flexible demand side resource and a low cost form of electricity storage. This could support the increasing share of renewables that is characterising the overall power generation mix.

The lifecycle carbon emissions of fully electric EVs are lower than ICE vehicles.²²³ This is the case even if the car was used and manufactured in an emissions intensive (i.e. heavy reliance on coal and gas generation) electricity system.²²⁴ For Australia, this comparative carbon advantage of EVs over ICE vehicles will increase as the share of renewables rises and will contribute to meeting Australia's international decarbonisation commitments.²²⁵

One option for auto manufacturers in further development of EVs as an emissions reduction technology is to integrate solar panels into the body of the EV. This enables the EV to charge itself whenever exposed to sunlight which reduces the charging requirements of the vehicle. There are a number of solar integrated EVs in development globally including by traditional

220 'Exclusive: VW, China spearhead \$300 billion global drive to electrify cars', Reuters, 10 January 2019, visited 19 April 2020, accessible here <https://www.reuters.com/article/us-autoshow-detroit-electric-exclusive/exclusive-vw-china-spearhead-300-billion-global-drive-to-electrify-cars-idUSKCN1P40G6>

221 Quarterly Update of Australia's National Greenhouse Gas Inventory: June 2019, Department of Environment and Energy, June 2019, p. 13.

222 Prospering in a low emissions world: an update climate policy toolkit for Australia, Climate Change Authority, March 2020, p. 99,

223 Lifecycle carbon assessment covers carbon dioxide emissions, or carbon dioxide equivalent emissions, over the three phases of a cars life; the manufacture, use and recycling

224 'How clean are electric cars? - T&E's analysis of electric car lifecycle CO₂ emissions, Transport & Environment, April 2020

225 Technology Roadmap Discussion Paper, Australian Government Department of Industry, Science, Energy and Resources, p.61.

auto manufacturer Toyota²²⁶, by new players Sono Motors²²⁷ and Lightyear²²⁸, and even locally by Applied Electric Vehicles.²²⁹

8.1.2 Current uptake of EVs

The uptake of EVs globally has been growing significantly in recent years with over 2.1 million sold globally in 2019, a six per cent increase on 2018.²³⁰ This increase in EV sales have occurred whilst ICE sales have been declining, most recently with ICE vehicle sales globally decreasing by around 4 million or 5 per cent from 2018 to 2019.²³¹ This trend has lead some analysts to predict that ICE passenger vehicle sales have peaked.²³²

Sales in Australia have been modest relative to global trends, although the global trend of increasing EV and decreasing ICE sales is also present. Australia sold 6,718 electric vehicles in 2019, a 203 per cent increase compared to 2018.²³³ Sales for all vehicles nationally in Australia over 2019 decreased by 7.8 per cent compared to 2018.²³⁴

The price and range of EVs have been major concerns for consumers in Australia.²³⁵ Increasingly lower priced and higher range models are entering the market (e.g. below \$60,000) as battery technology improves. These factors open EVs up to a wider consumer market. Another factor helping relieve "range anxiety" for consumers is access to public EV charging stations, the number of which in Australia has increased by over 140 per cent in the year to July 2019.²³⁶

8.1.3 Forecasts

While the uptake of EVs globally is expected to continue to increase substantially over the coming decades, the rate at which this occurs is uncertain. Figure 8.1 below shows that industry forecasts have generally been increasing over time with the most optimistic of them from BloombergNEF predicting that there will be 550 million EVs on the road globally by 2040. While the Covid-19 pandemic has added near-term uncertainty to this forecast, the medium to long term transition trajectory to EVs is not expected to change due to the underlying factors of declining costs and the need to reduce emissions.²³⁷

226 For more information see <https://global.toyota/en/newsroom/corporate/28787347.html>

227 For more information see <https://sonomotors.com/>

228 For more information see <https://lightyear.one/>

229 For more information see <https://arena.gov.au/projects/energy-freedom-solar-electric-vehicle-pilot/>.

230 Global EV sales between 2011 and 2018 experienced an average growth rate in sales of nearly 70 per cent per year.

231 IEA (2020), *World Energy Investment 2020*, IEA, Paris <https://www.iea.org/reports/world-energy-investment-2020>.

232 Bloomberg NEF, *Electric Vehicle Outlook 2019*, viewed 23 January 2020, <https://about.bnef.com/electric-vehicle-outlook/#toc-viewreport>.

233 Electric Vehicle Council, 'Huge jump in Aussie EV sales underscores massive untapped potential', viewed 7 February 2020, <https://electricvehiclecouncil.com.au/huge-jump-in-aussie-ev-sales-underscores-massive-untapped-potential/>.

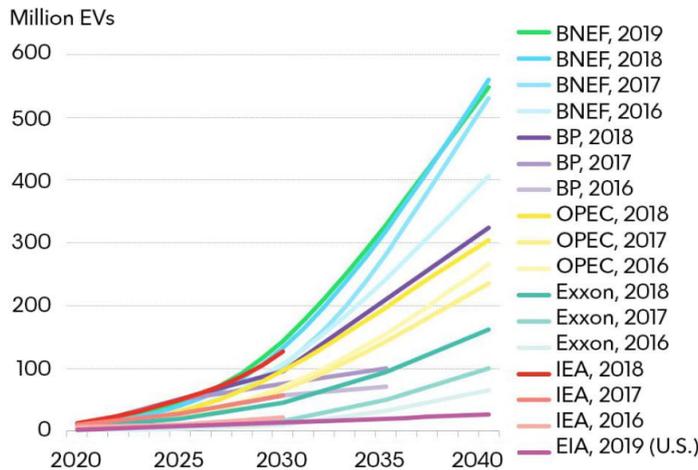
234 Federal Chamber of Automotive Industries, viewed 28 January 2020, <https://www.fcai.com.au/news/index/view/news/600>.

235 Queensland Home Energy Survey 2018, Insights Report, Colmar Brunton, p. 61.

236 State of Electric Vehicles, Electric Vehicle Council, August 2019, p. 19.

237 Bloomberg NEF, *Electric Vehicle Outlook 2020*, viewed 28 May 2020, <https://bnef.turtl.co/story/evo-2020/page/3/1>.

Figure 8.1: EV outlooks then and now



Source: BloombergNEF, Electric Vehicle Outlook 2019.

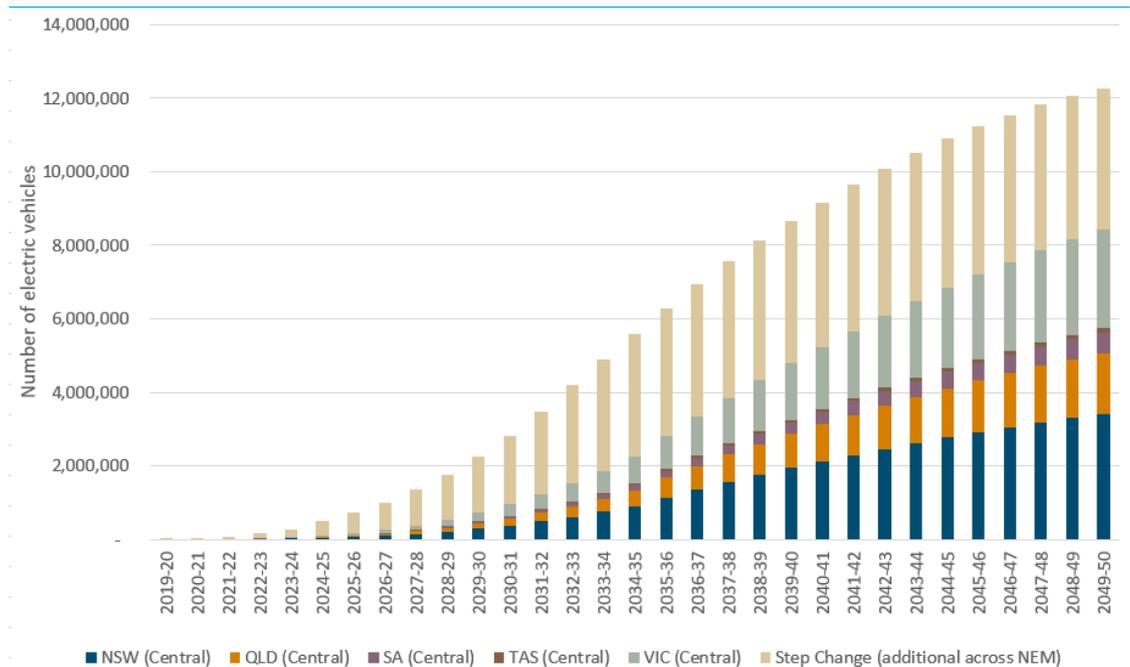
Figure 8.2 below presents the Australian Energy Market Operator's (AEMO) forecast for uptake by state in the NEM as part of the 2019 NEM Electricity Statement of Opportunities's (ESOO) Central and Step Change scenarios. AEMO highlighted that the central scenario forecast is influenced by a lack of supportive policy and EV infrastructure that leads to a slow reduction in vehicle prices and lower vehicle model availability.²³⁸ AEMO noted that the Step Change scenario reflects strong action on climate change leading to faster technological improvements and greater electrification of the transport sector.²³⁹ Despite the dampening factors on EV uptake in the Central scenario the electrification of vehicle transport is forecast to be the primary driver for overall demand increases in the NEM from the mid-2030's.²⁴⁰

²³⁸ AEMO, ES00 2019, p. 40.

²³⁹ AEMO, ES00 2019, p. 40.

²⁴⁰ AEMO, Submission to the EV issues paper, February 2019, p.2.

Figure 8.2: NEM EV forecast



Source: AEMO, ESOO 2019, Central and Step Change scenario.

8.1.4 Consumer attitudes

Australian consumers are well aware of EVs and are increasingly open to purchasing one if they were in the market for a car. Surveys of motorists from New South Wales, Victoria and Queensland, on behalf of the Electric Vehicle Council in 2019, indicated that 45 per cent would consider purchasing an EV. This increases to 69 per cent in a situation where EVs are at the same price point, as an equivalent ICE vehicle.²⁴¹

The main concerns of consumers that inhibit the purchasing of EVs as observed across multiple studies in Australia are "range anxiety" and purchase price.²⁴² With more affordable models becoming available and as the average range of EVs increases alongside the increased deployment of charging infrastructure these concerns should reduce and purchasing increase.

The 2018 Queensland Household Energy Survey (QHEs) highlighted that there is an increasing willingness to consider EVs at lower price points, though the lower price models currently available on the market do not have sufficient range. QHEs pinpointed a tipping point of range and price that would facilitate widespread adoption as an EV model with a range of 500 km at a cost of \$50,000.²⁴³

241 State of Electric Vehicles, Electric Vehicle Council, August 2019, p.23

242 Ibid.

243 Queensland Home Energy Survey 2018, Insights Report, Colmar Brunton, p. 61.

8.1.5 Charging infrastructure

The number of public charging stations in Australia has increased by 143 per cent between June 2018 and July 2019, with a total of 1,930 stations as of July 2019.²⁴⁴ The roll out of public charging infrastructure is significant as in other markets it has had a positive correlation with increased uptake of EVs.²⁴⁵ Studies have shown that public charging stations at less than 60km intervals are required for drivers to both complete journeys beyond the range of their vehicle, and for them to feel secure travelling longer distances and further from their usual charging location.²⁴⁶

The different types of charging infrastructure are listed in Table 8.1 below. It is expected that as battery prices reduce EVs will continue to have larger battery capacity and therefore faster charging infrastructure will be preferred by consumers. This will likely include level 2 at the home and progressively more level 3 chargers in public, as explained in Table 8.1 below. These chargers also have differing software capabilities affecting communication abilities between vehicle, charger and across charging networks.

Chargers and EVs have also had ad-hoc development regarding the level of interoperability with the electricity system. The absence of comprehensive EV grid integration standards increases the risk of an inefficient transition to electrified transportation for consumers, potentially leading to additional costs and reduced uptake of EVs. Notable standards gaps include charger performance, capability and compatibility as well as interoperability and cyber security. This will be an area of focus for the DEIP EV Working Group standards taskforce which seeks to assess the gaps in existing Australian Standards frameworks relating to EV grid integration.²⁴⁷

Table 8.1: EV charging infrastructure

CHARGING INFRA-STRUCTURE LEVEL	ONE	TWO	THREE
Equipment and location	Charging through a standard existing power point. Requires a specialised vehicle cable but no specialised	Charging that requires installation of a dedicated EV charger, typically found in homes, shopping centres, hotels, workplaces and apartment complexes.	Fast charging units that are typically found in commercial premises or en-route highway locations similar to fuel stations.

244 State of Electric Vehicles, Electric Vehicle Council, August 2019, p. 19

245 Ibid.

246 The Transport and Environment study identified that there are around 2,550 rapid charging sites installed on European main roads with a total of about 5,000 chargers. This is equivalent, in average, to one site with two chargers placed every 60 km in average on EU motorways for every direction on the highway.
https://www.euractiv.com/wpcontent/uploads/sites/2/2018/09/Charging-Infrastructure-Report_September-2018_FINAL.pdf. Australian Energy Council submission, page 2.

247 AEMO, Submission to EV Issues paper, p. 3.

CHARGING INFRA- STRUCTURE LEVEL	ONE	TWO	THREE
	installation equipment.		
Rate of charge	Operates at 120V AC up to 10A or 2.4kW. Roughly 10km/hr of charging provided to a standard EV. Can be used to top up daily use, will not recharge an EV fully overnight.	Operate at 240V AC up to 22kW (32A three-phase). Providing 15-100km/hr of charging. Capable of providing a full recharge overnight.	Currently available rapid AC chargers can charge at 43kW while rapid DC chargers are typically 50kW though can reach up to 350kW (40-500A, three-phase). Providing up to 150km/hr on the lower end and at higher rates could fully charge an EV in 10 minutes.

Source: Electric Vehicle Council, viewed on 30 January 2020, <https://electricvehiclecouncil.com.au/about-ev/charger-map/>.

8.1.6

Charging behaviour

A recent review of charging behaviour by Energeia segmented the Australian market between drivers with and without access to dedicated charging infrastructure. Drivers with access to dedicated charging at the home or workplace, representing around 70 per cent of the market, were estimated to only require public charging for one per cent of kilometres travelled.²⁴⁸

Drivers without access to dedicated charging facilities, representing the other 30 per cent of the market, would require public charging facilities for 100 per cent of charging requirements.²⁴⁹ For these drivers without a dedicated parking spot at home or work, Energeia identified public workplace charging to be the best option for recharging their EVs based on a study of daily parking patterns.²⁵⁰ The consumer facing interoperability, referring to the compatibility of different vehicles' charging components, as well as accessibility of public charging infrastructure will also shape charging behaviour and consumer experience.

Similar analysis by AEMO in the 2019 ESOO modelled the charging behaviour of EV consumers under different levels of availability of public infrastructure, tariff structures, energy management systems, and the driver's routine. Figure 8.3 below shows an example of the charge profile used in the 2019 ESOO's Central Scenario on an average weekday for NSW in January 2039. This profile highlights the scale of the potential impact EV charging

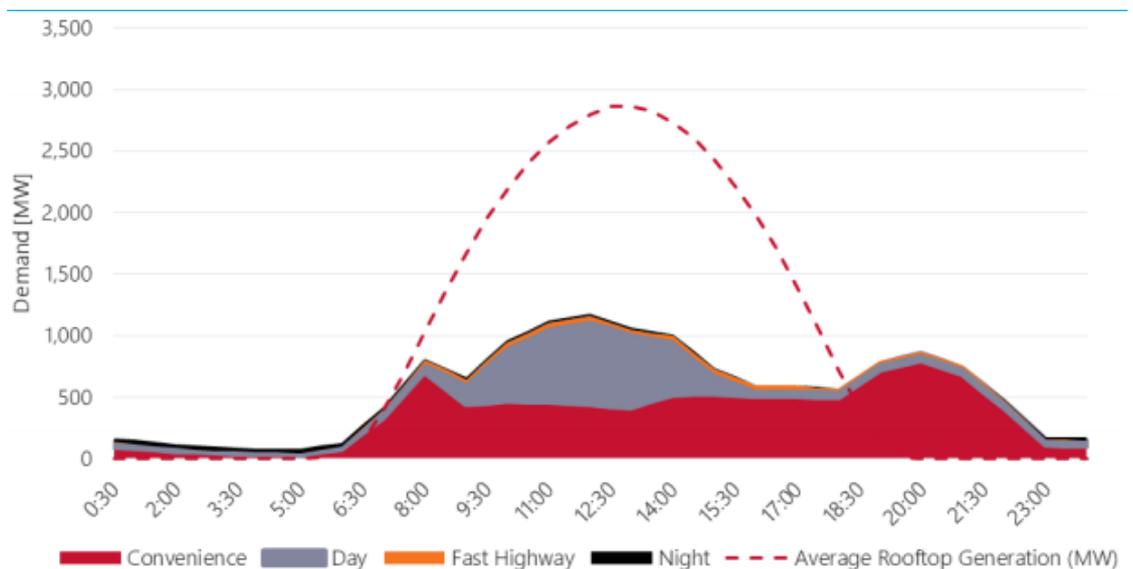
²⁴⁸ The Energeia review relies on the UK National Travel Survey (2016) for statistics on access to private parking.

²⁴⁹ Energeia, Electric Vehicle Market Study, May 2019, p. 4.

²⁵⁰ This was based on a University of Monash study of parking behaviour by location and time. Energeia, Electric Vehicle Market Study, May 2018, p.33.

and in particular 'convenience' charging²⁵¹, could have on evening demand and the electricity system as a whole.²⁵²

Figure 8.3: Average weekday EV demand by charge profile type assumed for the Central scenario in January 2039 in New South Wales



Source: AEMO, Electricity Statement of Opportunities 2019, August 2019, p. 41.

8.1.7

Government strategies

Governments at all levels in Australia control policy levers that can influence the uptake of EVs considerably. Government policies have become even more influential due to the impact of COVID-19 in that there is potential to drive coordinated change through stimulus measures across multiple sectors. Supporting the uptake of EVs represents an opportunity to add much-needed flexibility in the NEM and to support the integration of a higher share of renewables.²⁵³

Governments have a number of levers available to them, as highlighted by Energeia research of leading international jurisdictions, including:

- Purchase incentives -- up-front financial incentives, that reduce the purchase cost of the EV, have the most impact on EV uptake and can also increase manufacturer EV model allocation.

²⁵¹ Convenience charging refers to vehicles assumed to have no incentive to charge at specific times, resulting in greater evening charging after vehicles return to the garage.

²⁵² AEMO, Electricity Statement of Opportunities 2019, August 2019, p. 40.

²⁵³ Global Renewables Outlook : Energy Transformation 2050, International Renewable Energy Agency, April 2020, p. 76.

- Procurement targets -- government fleet targets have the potential to increase model availability and creates a second hand market for EVs when fleets are renewed.²⁵⁴
- EV import and vehicle efficiency regulations -- vehicle emissions (e.g. CO₂, PM_{2.5}, NO_x, etc.), fuel efficiency and vehicle import regulations are a key driver of EV uptake.
- EV charging infrastructure development -- market research and results from leading jurisdictions show that availability of public charging infrastructure has a positive correlation with increased EV uptake.²⁵⁵

The potential of governments to use these levers in the future also places a large amount of uncertainty on forecast uptake in section 8.1.3 above. Outside of these policy levers governments around the world have also been increasingly restricting the sale of new fossil fuel cars by certain dates. For example, the UK government recently brought forward its ban by five years to 2035.²⁵⁶

This highlights the impact government policy can have on accelerating the uptake of EVs while also underlining the uncertainty in medium to long term forecasts. The bans also have an indirect effect on the vehicle market available in Australia as global automakers increasingly either remove ICE vehicles from portfolios or shift investment, as highlighted in section 8.1.1, due to these policies.

Existing Australian government policies surrounding EVs are listed below.

Table 8.2: Government EV policies

JURISDICTION	POLICY
Commonwealth	<ul style="list-style-type: none"> • The Federal Government's Technology Investment Roadmap Discussion Paper identified EVs as a priority low emissions technology for inclusion in the first Low Emissions Technology Statement, which will distil priority technologies for short, medium and long term impact • the Federal Government is currently preparing A National Electric Vehicles Strategy which is expected to be finalised in 2020.
Victoria	<ul style="list-style-type: none"> • Funding a commercial EV manufacturing facility that is being established in Morwell and commencing operations in 2021, manufacturing around 2,400 vehicles per year • investment in ultra-rapid and fast chargers at 7 locations • \$100 discount in annual registration for EVs • currently developing a Zero Emissions Vehicle Roadmap.
Tasmania	<ul style="list-style-type: none"> • Electric Vehicle Working Group: Developing a coordinated approach to support the uptake of EVs in Tasmania

254 Interviews with car manufacturers conducted by Energeia found that a minimum of 200 units in expected sales is needed to introduce a new EV model into Australia.

255 Energeia, Electric Vehicle Market Study, May 2019, p. 18.

256 'Petrol and diesel car sales ban brought forward to 2035', BBC, 4 February 2020, Accessed 19 April 2020, available at <https://www.bbc.com/news/science-environment-51366123>

JURISDICTION	POLICY
	<ul style="list-style-type: none"> EV ChargeSmart Grants Program: Grant funding to support a state wide EV charging network (fast, destination and workplace chargers) Smarter Fleets Program: Supporting State and Local Government fleets to prepare for EV uptake community awareness of EVs: Supporting a variety of events including community EV 'try and drive' events and a driverless electric bus demonstration.
Australian Capital Territory	<ul style="list-style-type: none"> All newly leased passenger fleet vehicles will be zero emissions vehicles from 2020–21 (where fit for purpose) an annual vehicle registration discount of 20 per cent for zero emissions vehicles zero emissions vehicles can use transit lanes until 2023.
South Australia	<ul style="list-style-type: none"> Climate Change Strategy under development by the Premier's Climate Change Council, including a focus on transport emissions the SA Government is considering the contribution that smart charging of EVs could make to increase total electricity consumption and make efficient use of the grid during off-peak and high renewable generation periods to reduce electricity prices for all South Australians.
New South Wales	<ul style="list-style-type: none"> Target for all NSW agencies of 30 per cent new passenger vehicles to be electric or hybrid by 2023 plans to replace Sydney's bus fleet with electric buses developing an Electric Vehicle Infrastructure and Model Availability Program.
Queensland	<ul style="list-style-type: none"> Consumer awareness website: The Future is Electric phase 2 of the Queensland Electric Super Highway is under development battery EVs registered in QLD attract lower registration fees invested \$2.5 million in Tritium.

8.1.8

Relevant work programs

Relevant AEMC work programs that are addressing barriers related to the efficient integration of EVs into the wider electricity market are detailed below to help provide context on the scope of this paper.

DER minimum technical standards

AEMO submitted the DER minimum technical standards rule change on 5 May 2020. The proposal seeks to enable the coordination and amendment of DER technical capabilities

through mandatory DER minimum technical standards. This relates to, in the first instance, inverter performance and grid responsiveness, interoperability, and cyber security. The proposal seeks to include:

- distributed generation, for example, solar PV,
- energy storage, for example, small and medium-scale batteries and electric vehicles that can deliver energy from the vehicle to the power system
- controllable loads, for example, air conditioners, electric storage hot water systems, pool pumps, and electric vehicle supply equipment that connect to the distribution system.

The AEMO rule change proposal for DER minimum technical standards proposes they be set out in a subordinate instrument to provide flexibility and allow AEMO to update the standards in consultation with industry, to reflect the evolution of DER technology and progress towards a two-sided electricity market.²⁵⁷

Integrating energy storage rule change

On 23 August 2019 AEMO submitted the Integrating energy storage systems (ESS) into the NEM rule change request which considers amending the NER to recognise and define ESS. The proposal provides a framework that supports ESS participation and business models where there are a mix of technology types connecting behind a connection point. This framework seeks to more efficiently accommodate increasing numbers of grid-scale connections where bi-directional electricity flows occur and business models where there are a mix of technology types are connecting behind a connection point. This rule change may be relevant for operators of large fast charging sites who seek to incorporate ESS behind the same connection point. It may also be relevant for EV charging at residential sites if amendments to accommodate two way energy flows for grid scale sites has a flow on effect to small customer connection points, particularly for small generation aggregator connections points.²⁵⁸

Wholesale demand response mechanism

The Commission received three rule change requests seeking to facilitate wholesale demand response in the national electricity market. The three rule change requests followed a recommendation in the AEMC's Reliability Frameworks Review to integrate more demand response in the wholesale market by enabling demand response aggregators and providers to be recognised on equal footing with generators in the wholesale market and so offer wholesale demand response transparently into the market. In July 2019, the Commission made a draft determination to introduce a wholesale demand response mechanism which would allow a new category of market participant, a demand response service provider, to sell wholesale demand response directly in the wholesale market. The Commission published a second draft determination on the Wholesale demand response mechanism rule change request in March 2020. The second draft determination sets out a framework that allows large consumers to participate in wholesale demand response. As such, this rule change

²⁵⁷ For more information see: <https://www.aemc.gov.au/rule-changes/technical-standards-distributed-energy-resources>.

²⁵⁸ For more information see <https://www.aemc.gov.au/rule-changes/integrating-energy-storage-systems-nem>

process may be relevant to EV charging load operators who seek to utilise EV chargers as a demand response resource from large energy users.²⁵⁹

NECF Review

In the AEMC's 2019 Retail energy competition review final report the Commission mapped the consumer protections that energy consumers in the national electricity market currently receive under the National Energy Customer Framework (NECF) and the Australian Consumer Law (ACL). The Commission concluded that the NECF generally complemented the ACL in protecting energy consumers from harm.

The Commission continued two further areas of analysis as part of the 2020 Retail energy competition review: consumer protections related to new energy products and services, and the impact of digitalisation on regulatory provisions under the NECF for the traditional sale of energy.²⁶⁰ This work is relevant for new energy service providers that are seeking to provide energy services for EV consumers and for traditional retailers selling energy to customers charging EVs.

Electricity network economic regulatory framework - Grid of the future

In the 2019 Electricity network economic regulatory framework (ENERF) review final report, the Commission recommended regulatory reforms to efficiently integrate distributed energy resources (DER), including EVs, into the electricity system and optimise benefits for all electricity system users. The Commission identified a number of 'tools' to integrate DER and optimise benefits for all customers. The report recommended further consultation be undertaken on potential different distribution access and pricing models to be conducted through the Australian Renewable Energy Agency's (ARENA) Distributed Energy Integration Program (DEIP).²⁶¹

Distribution access and pricing

Through the DEIP DER Access and Pricing Working Group, the Commission expects to receive a rule change request that considers potential new access arrangements that may form part of DNSPs' new service offerings. One aspect of the regulatory framework that will have a major impact on efficient DER and EV integration is the distribution system access, connection and charging arrangements. In the near future while most customers will continue to use networks to import electricity from the grid, the networks will also be used by other consumers to access new energy services markets. The regulatory framework needs to accommodate this diversity of use and enable DNSPs to develop and price new services that meet the evolving needs of all consumers, including EV consumers.

259 For more information see <https://www.aemc.gov.au/rule-changes/wholesale-demand-response-mechanism>.

260 For more information see <https://www.aemc.gov.au/market-reviews-advice/consumer-protections-evolving-market>.

261 For more information see <https://www.aemc.gov.au/market-reviews-advice/electricity-network-economic-regulatory-framework-review-2019>.

Metering review

Advanced meters plays a key role in the integration of distributed energy resources. The Commission committed to commence a review of competitive metering arrangements in December 2020, when it made the Competition in metering determination in November 2015. The Commission will commence this review as planned. The key issues for the review is likely to include monitoring the roll out of smart meters, along with assessing the potential benefits of greater data collection.

8.1.9

Industry work programs

Relevant work programs that are addressing barriers related to the efficient integration of EVs into the wider electricity market are detailed below to help provide context on the scope of this paper.

Two-sided markets

On 20 April 2020, the ESB released a paper to open discussions on how a two-sided market could benefit consumers, particularly with increased decentralisation of the power system. The discussion paper sets out what a two-sided market could look like and its key foundations. It also outlines the features for how both supply and demand should participate to get the greatest benefits. Technological advances in digitalisation mean that consumers, instead of having to actively monitor the electricity market and decide how or when to participate, can now 'set and forget'. Consumers, or someone acting on their behalf, can set EV chargers, batteries, pool pumps, smart air conditioners and any other number of devices to consume electricity at the cheapest times and export at the most expensive times, lowering costs for all consumers. COAG Energy Council has tasked the ESB with creating a fit for purpose market design for 2025, which includes a two-sided market.²⁶²

ARENA trial programs

ARENA have a current focus on facilitating the integration of electric vehicles with the electricity grid to benefit electricity users generally. ARENA considers that working out how to manage EV charging to best complement an electricity system increasingly powered by renewables will require testing new technologies and business models. This includes encouraging coordination between the EV industry, electricity sector – including retailers, networks and market bodies – and government. ARENA have supported several projects involving EVs and renewable energy to date, including consumer tools and ultra-fast charging infrastructure, which could help to overcome barriers to uptake. ARENA is also looking to support more trials of managed charging and V2G demonstrations.²⁶³

Distributed Energy Integration Program (DEIP)

DEIP is a collaboration of government agencies, market authorities, industry and consumer associations. Through several working groups DEIP aims to develop a series of actions that would provide a foundation for DER reforms. For 2020 this includes four work packages:

²⁶² For more information see <http://www.coagenergycouncil.gov.au/post-2025/two-sided-markets>

²⁶³ For more information see <https://arena.gov.au/renewable-energy/electric-vehicles/>

- Electric vehicles – facilitating the efficient integration of EVs into existing networks and markets
- DER Access and Pricing – Building consensus and developing arrangements to support evolving regulatory frameworks to meet changing community expectations and higher penetration of DER
- DER Interoperability – Coordinated industry wide support and implementation of DER interoperability platform, cyber security & device standards
- DER Market Development – Testing how DER marketplaces may deliver the most efficient outcome for consumers.

The 2020 work program for the DEIP EV taskforce covers data availability, standards development, residential tariffs and incentives, and high capacity tariffs and connections.

VPP trials

AEMO has established a VPP demonstration program. AEMO notes that these demonstrations are the first step in a broad program of work designed to inform changes to regulatory frameworks and operational processes so DER can be effectively integrated into the NEM, maximising value to consumers while also supporting power system security. Notably, within the demonstrations AEMO has loosened restrictions on VPP providers supplying raise and lower FCAS services to assess the ability to reduce the technical barriers of these services.

OpEN

The OpEN project is a joint initiative between Energy Networks Australia (ENA) and AEMO to explore a new network operational model that optimises the flow of electricity across distribution and transmission networks. It is considering how to manage the trades in a range of wholesale and network markets within network limits, by sending signals to use, store or provide real or reactive power anywhere in the network so they can realise the most value. OpEN is considering how to optimise DER, while managing network constraints. For example, under a proposed hybrid framework the distributor would be responsible for managing and communicating network constraints and the need for network services, while AEMO would manage a market platform that provides a standardised interface for DER to participate in the wholesale energy market. These inputs could be incorporated into a security constrained economic dispatch – which would be calculated at a nodal level and aggregated to the whole system. The market platform could also be utilised to facilitate participation of DER in network markets and services and it provides the potential for co-optimisation with the energy and FCAS markets.²⁶⁴

8.2 Role of retailer

For most small consumers, the primary interaction they have with the electricity market is through their electricity retailer. The retailer is the final segment of the traditional electricity supply chain, and facilitates the supply of electricity to customers. Some of these consumers may perceive electricity retailers as sellers of electricity, through a network of electricity

²⁶⁴ For more information see <https://www.energynetworks.com.au/projects/open-energy-networks/>

wires. In fact, the retailer is not involved in the physical supply of energy to the consumer. Instead, the retailer provides the consumer with a financial product, which is the retail contract, that packages wholesale, network, metering, customer service and other costs. The range of retail offers available in the market are essentially a range of financial products related to facilitating the supply of energy.

The main risk that these financial products serve to protect consumers against is price volatility in the wholesale market. Electricity retailers must source supply from the wholesale spot market, to satisfy their customers' demand. Due to the need to balance electricity supply and demand in real time the spot market price can fluctuate greatly depending on the conditions in the market in a given trading interval. Energy retailers manage the risks associated with wholesale market volatility through the purchase of hedging products on the contract market and through vertical integration with generators. Small customers are then generally charged a fixed rate for their energy consumption and billed at regular intervals.

Another part of the financial product that retailers provide is the choice of whether to match network and retail tariff structures. DNSP pricing structures have traditionally taken the form of a fixed and variable component which retailers generally adopt and pass on to consumers. However, over time, with the roll out of advanced metering and the implementation of the Commission's Distribution network pricing arrangements rule change network tariffs are becoming more dynamic. Similar to their role smoothing wholesale costs, retailers, based on their risk appetite and customer preferences, will need to choose whether to pass through these new network tariff structures in retail tariffs or to provide simplified products to customers.

Opportunities

The electrification of Australia's passenger vehicle fleet is expected to be the primary driver of future increased electricity consumption in Australia. It will also change the underlying residential demand profile, as noted in section 8.1.3. This poses a significant opportunity for retailers to innovate their service offerings to attract EV consumers who are likely to have higher electricity consumption than non EV consumers. Stakeholders generally agreed that the benefits of this opportunity outweigh the challenges surrounding efficient EV integration for retailers.²⁶⁵

This opportunity is in stark contrast to that of residential PV uptake which has resulted in reduced consumer consumption and thus revenue for retailers. Given the unique interaction of EVs with the electricity and transport industries there is also potential for new retailers to emerge.²⁶⁶ These new entrants may utilise fundamentally different retail business models, such as utilising the EV as a physical hedge to avoid the cost of financial hedging. It also provides a low cost channel to market through the sale of EVs or charging equipment.²⁶⁷

Challenges

²⁶⁵ Submission to EV Issues paper: EV Council, p.3; ANU, p. 1; AGL, p.6.

²⁶⁶ Examples of this already include car manufacturer Volkswagen developing retailing arm Elli and fossil fuel retailer Shell entering the electricity market in Australia and developing a broader EV strategy globally. Jet Charge, submission to EV Issues paper, p. 2.

²⁶⁷ Submission to EV Issues paper: Jet Charge, p.2; ANU p.3

Central to the challenge surrounding EVs is that while the customer sees the primary purpose of the EV as mobility, retailers may wish to utilise the asset within the electricity system. Where retailers seek to use EVs they will need to build a strong relationship with customers to achieve EV charging that facilitates value realisation. This will require the retailer to provide strong incentives for the consumer to behave in particular ways (i.e. to charge at defined times or respond when particular network conditions arise) or to agree to provide the retailer with control. This will be a challenge for retailers that is compounded by the historic trust issues and lack of engagement an average consumer has had with retailers.²⁶⁸

Alternatively, consumers may choose not to utilise the technical capabilities of EVs and then the impact on the electricity system will simply be through the additional load of convenience charging, as seen in section 8.1.6.²⁶⁹ This large additional load has the potential to considerably increase peak demand and lead to costly network augmentation that will be paid by all consumers. Given this it will be important that the current programs on rolling out cost-reflective network tariffs and smart meters continue. These changes should result in more dynamic retail offers over time that support the efficient integration of DER. Though, it is important that retailers, or third party energy service providers, have the ability to manage the extent consumers are exposed to cost reflective price signals in retail offers.

It is important that retail market regulation enables consumers, retailers, or new energy service providers, to efficiently realise and deliver value streams from the charging, or discharging in the case of V2G, of EV batteries. This is explored further in section 8.3.2.

8.3 Regulatory environment

This section provides an overview of the current regulatory framework for EV consumers in the NEM. By laying out the regulatory environment, specifically the consumer protections present for EV consumers we can then use that lens to view the separate interaction points between EV consumers and the retail electricity market later in this chapter. This section also reviews the current arrangement for consumers to engage with multiple service providers.

8.3.1 Consumer protections

In NEM jurisdictions, 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. The ACL is the principal consumer protection and fair trading law in Australia. The NECF provides a framework for consumer protections in addition to those general protections provided under the ACL. The NECF applies in each participating jurisdiction through state and territory laws.²⁷⁰ Each jurisdiction has adopted the NECF at different times and to different degrees.²⁷¹ The NECF includes specific provisions to provide

268 AEMC, 2018 Retail Energy Competition Review, Final report, 28 June 2018, p.85.

269 Submission to EV Issues paper: AGL, p.7;

270 NERL, Part 2.

271 The NECF commenced in the Australian Capital Territory and Tasmania on 1 July 2012, followed by South Australia on 1 February 2013, New South Wales in 1 July 2013 and Queensland on 1 July 2015. Victoria has adopted the NECF in a limited manner.

consumers with effective access to energy supply and network services (guaranteed connection obligations, limitations on disconnections and energy interruption, etc.).²⁷²

Currently, the NECF and ACL apply in different ways depending on the way in which an energy related product or service is provided for an EV consumer. Regardless of where, when or by whom the sale of electricity occurs, the ACL applies. In addition to the ACL, where electricity is supplied by an:

- authorised retailer at a home or small business, the NECF applies
- exempt seller, any conditions placed on the exempt seller under the NECF through the exempt seller authorisation applies

Sale of energy

Any person who sells energy "to a person for premises" in the NEM is required to have a retailer authorisation or hold an exemption.²⁷³ The NERL sets out the types of exemptions that are available and the types of entities that could be exempted from holding a retailer authorisation.²⁷⁴

The Australian Energy Regulator (AER) considers that the phrase "to a person for premises" captures the sale of energy to a home or small business, but does not apply to EV chargers at commercial EV charging stations.²⁷⁵ Based on this view, commercial EV charging station operators do not need to hold either a retailer authorisation or an exemption to sell electricity to consumers.

The home will be the most convenient charging location for the majority of EV owners. The sale of energy in a residential environment would require a retailer authorisation or exemption, bringing consumers under the protection of the NECF or exempt selling guideline. The AER has noted that for an entity selling to a residential premise it is likely that any exemption agreement would place conditions similar to the NECF obligations on the exempt sellers.²⁷⁶

Stakeholders highlighted some uncertainty with the current regulatory environment in relation to the consumer protections available in certain environments. Some stakeholders noted that it is unclear if a new entrant providing non-residential charging, that is not a retailer, would be subject to price regulation or NECF-related obligations, including consumer protections.²⁷⁷ The Commission encourages stakeholders to contact the AER about EV charging situations in which they are uncertain of the regulatory requirements and consumer protections expected in that environment.

In terms of the suitability of existing regulatory expectations around consumer protections for new technology the Commission agrees with stakeholders that there is a continued need to

272 AEMC, Consumer protections in an evolving market: New energy products and services - 2020 Retail Energy Competition Review, 12 December 2019.

273 Section 88 of the National Energy Retail Law, *Schedule to the National Energy Retail Law (South Australia) Act 2011*.

274 Division 6 of Part 5 of the NERL, for more information see <https://www.aer.gov.au/retail-markets/authorisations>.

275 Australian Energy Regulator, Response to AEMC Issues Paper - Energy market arrangements for electric and natural gas vehicles, submission to the AEMC, 28 February 2012, p. 2.

276 AER, AER Final Retail Exempt Selling Guideline, March 2018, p. 19.

277 Submission to EV Issues paper: Energy Queensland, p.8; EV Council, p.5.

update consumer protection frameworks for developments in new technologies.²⁷⁸ The Commission has been undertaking such work within this review which can be found in Chapter 9 and 10. This work is seeking to improve the NECF for the traditional sale of energy, which includes the sale of energy at the home for EV charging. For new charging situations like under an SGA arrangement, described below in section 8.3.2, this falls under the work done in the new energy products and services work program within the NECF review and is likely to continue to require refinement through the Commission's work on two-side markets.

8.3.2 Multiple trading relationships

Under current arrangements, a consumer is only able to have a single financially responsible market participant (FRMP) at each network connection point, i.e a retailer from which they buy electricity. There are a number of situations in which a consumer may wish to engage with separate service providers. This could include separating the responsibility of controlled loads (such as air conditioning, hot water, pool pumps or EV charging) or DER between multiple retailers. Consumers are able to achieve this by establishing a separate connection point or through the existing embedded networks framework. However, these options contain either considerable complexity, connection costs or multiple network tariffs. Consequently, the current regulatory framework does not facilitate consumers easily engaging with multiple FRMPs.

Multiple trading relationships

The Commission's 2012 Final Advice on the Energy market arrangements for electric and natural gas vehicles (2012 EV review) considered how metering arrangements could enhance choice and facilitate efficient use of electricity services for customers with electric vehicles. A key recommendation was that a customer should be able to engage with a different FRMP at its premises for different portions of load without having to establish a second connection point, an arrangement referred to as multiple trading relationships (MTR).²⁷⁹

Following this, in 2015, the Commission received a rule change request from AEMO aiming to better enable MTR. The rule change proposed 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. The Commission decided not to make a rule at the time as consumers could already engage multiple retailers at a premises under the current rules by establishing a second connection point.²⁸⁰

Expert advice provided to the Commission through the rule change process identified that it was far more economical for customers to engage multiple retailers through a second connection point than initially thought in the original 2012 EV review. Therefore, the cost of implementing the proposed changes across IT systems and operational processes of retailers

²⁷⁸ Submission to EV Issues Paper: PIAC, p.1; ANU, p.3; Motor Trades Association Queensland, p.5.

²⁷⁹ AEMC 2012, Energy market arrangements for electric and natural gas vehicles, Final Advice, 11 December 2012, Sydney.

²⁸⁰ If a customer requests the establishment of a second connection point, this must be provided by the customer's DNSP.

and distributors would have outweighed the benefit provided to a small subset of consumers.²⁸¹ The majority of stakeholder submissions to the rule change considered that the benefits were not significant, or were not sufficient to warrant the costs of implementation.

Subsequently, through the 2018 Reliability Frameworks Review the Commission highlighted a number of aspects of the energy market that are continuing to evolve, that may warrant further consideration of MTR. These include:

- The increasing uptake of DER, including solar PV, batteries, EVs and dynamic controllable loads. A formerly passive demand side is becoming increasingly engaged through the uptake of DER which is greatly expanding the choices that consumers have to manage their energy needs at the household or business level.
- The growing number of virtual power plants where DER are being orchestrated to provide services on a wholesale level. This may lead to higher rates of uptake of multiple trading relationships than was considered previously.
- Renewed stakeholder support from across industry for consumers to have more options for participating in the wholesale market.
- New metering configurations that would reduce the cost and complexity of accessing multiple FRMPs at a connection point. Differing metering arrangements than were considered in the MTR rule change request may enable MTR at a lower cost.²⁸²

There was general agreement amongst stakeholders that it is important that regulatory frameworks encourage smart EV charging at the home. Some stakeholders considered that MTR would enable innovative and valuable business models to emerge to facilitate this.²⁸³ However, retailers and DNSPs generally considered that the cost of implementation of MTR for industry still outweigh the benefits for consumers and highlighted the pre-existing avenues for a second connection point at a customers premises.²⁸⁴

The Commission considers that it is more appropriate to consider any potential MTR reforms in the context of the ESB's 2025 work program. This will enable the required consultation process for such a significant regulatory change and allow the potential costs to be aligned with the broader ESB 2025 work program. Given the existing options of setting up a second connection point (under an SGA or retailer registration) already exists for consumers it may be a lower cost and "no-regrets" option to enhance this as an interim change.

The UK Balancing and Settlement Code (BSC) administrative body Elexon is currently considering a modification to the BSC to enable individual consumers in the UK to be supplied by multiple retailers through one meter (i.e. MTR). It envisions this change will support the development of non-traditional business models and innovation.²⁸⁵ Given this and recent changes in UK legislation in support of EV uptake, the UK might provide a useful reference point regarding the demand for multiple trading arrangements to support EV charging in

281 AEMC 2016, Multiple Trading Relationships, Final Rule Determination, 25 February 2016, Sydney.

282 AEMC, Reliability Frameworks Review, Final Report, 26 July 2018

283 Submissions to EV Issues Paper: Enel X, p.1 ; ANU, p.2 ; Tesla, p.3; Jet Charge, p.2, Magnis Energy Technology Limited, p.3.

284 Submissions to EV Issues Paper: AusNet Services, p.1 ; Energy Queensland, p.3 ; EnergyAustralia, p.4; Endeavour Energy, p.1; Ausgrid, p.5; AEMO, p.6; AGL, p.9.

285 Further information is available at <https://www.elexon.co.uk/mod-proposal/p379/>

preference to EV charging through packaged products at the standard customer connection point.²⁸⁶

Small Generation Aggregator

A potential option to enable innovative products and services for EV consumers (amongst others) may be to amend the small generation aggregator (SGA) registration category. An SGA is a registered participant who may supply electricity aggregated from one or more small generating units (under 30MW) to a transmission or distribution system and purchase all electricity supplied to that point. An SGA requires a second connection point (unless within an embedded network) of which the SGA is the FRMP.²⁸⁷

AEMO supported this position and stated that there are current examples of service providers utilising SGA connections for services at small customer connection points. Further AEMO stated that the SGA model provides a framework that can be adapted to facilitate more general arrangements, not just limited to generation. AEMO noted that these concepts and related design considerations are matters that are likely to be considered in the work currently being pursued by the ESB in its post-2025 market design work-stream on two-sided markets.²⁸⁸

The AEC noted that a second supply point arrangement that facilitates a second energy provider, would have the same practical effect of MTR in facilitating uptake of new technologies. The AEC considered that in order not to discourage uptake of this arrangement, cost dispersion of implementation could be spread across all users in some way.²⁸⁹

The Commission considers that there may be merit in changes to the SGA framework, as an interim measure before wider post 2025 market reforms on two-sided markets. An enhanced SGA framework would incentivise entry from aggregators or third parties that can harness EV charging technology, or other DER assets, as it develops to accurately track demand and identify opportunities to better participate in the market. This would allow the SGA operator to act as a third party, who can participate in the wholesale market or provide network support on behalf of small customers with EV chargers, batteries or other controllable devices.

The potential benefit to making changes to the SGA framework to facilitate this is that it leverages the existing market structure to facilitate the efficient integration of DER. It would also likely be a lower cost model than MTR and would provide information on the involvement of small consumers in a two-sided market.

The Commission notes that any enhancement of the SGA framework to encourage new entrants innovating in EV charging would require a review of a number of issues:

286 AEMO noted in its submission that although the UK market is often a good reference point for NEM market development, the operating model and regulatory framework for metering provision and metering data management in the UK is very different to the NEM thus options made available for MTRs to support in-home charging in the UK are unlikely to suit the NEM.

287 The SGA framework was originally designed to incentivise small generating systems (such as stand-by generating systems in offices, hospitals and shopping centres) to engage directly in the market. For more information on the SGA registration category see https://aemo.com.au/-/media/files/electricity/nem/participant_information/registration/small-generation-aggregator/small-generator-aggregator-fact-sheet.pdf?la=en.

288 AEMO, Submission to EV Issues Paper, p. 6.

289 AEC, Submission to EV Issues Paper, p. 5.

- Changing definition of the SGA registration category to formally represent load and generation.
- How network tariffs for SGA connection points should allocate fixed and variable costs across multiple connection points at one customer site.
- SGA access to ancillary services markets to enable EV charging services to capture more the value they can provide the system.
- Whether the financial obligations, including cost recovery mechanisms and AEMO prudential requirements should be changed or placed upon SGA participants.
- Consumer protections for the range of situations that could be enabled by changes to the SGA framework.
- The operation of SGA connections within an embedded networks.
- Review the process for approval for revenue grade meters to enable more asset level devices to provide the same outcome and reduce the costs of providing new energy services.²⁹⁰

There are a number of existing work programs that could consider these issues. These include the: Integrating ESS rule change, two-sided market work program, DEIP EV working group and VPP trials. Alternatively, there may be scope for AEMO to propose a rule change.

8.4 EV value streams

The primary value of any vehicle to consumers is as a form of transport. Secondary to this, for EVs, there are a number of value streams available to consumers that if utilised could help integrate DER into the electricity market. The optimisation of these value streams could provide substantial benefits to individuals and to all electricity system users. This is through the charging of EVs at times which lead to a greater utilisation of the grid without increasing peak demand and the potential use of EVs as a battery system leading to bidirectional flows providing a wider range of system benefits, as described in the section 8.4.2 below.

Stakeholders noted that EVs are unique in relation to the significant scope for charging requirements to be shaped by the needs of the system with limited change in outcomes for consumers making EVs a highly flexible and valuable load.²⁹¹ This is because cars today, including EVs, typically spend around 95 per cent of their lifetime parked²⁹² and so charging can be altered based on wholesale market prices, ancillary services market prices, network congestion or internal hedging policies.²⁹³

8.4.1 EV charging

Smart and flexible EV charging, which responds to controls or market signals, may provide benefits to the wider grid by promoting more efficient use of current infrastructure. If provided efficient price signals, EV charging load could provide a significant aggregated

²⁹⁰ Tesla, submissions to EV Issues Paper, p. 4.

²⁹¹ Submissions to EV Issues Paper: Jet Charge, p.2 ; CEC, p.3, Magnis Energy Technology Limited, p.1.

²⁹² Global Renewables Outlook : Energy Transformation 2050, International Renewable Energy Agency, April 2020, p. 76.

²⁹³ Submissions to EV Issues Paper: EnergyAustralia p.3; Jet Charge, p.2.

demand response resource for the system. This large flexible resource could reduce system demand peaks, fill load valleys or absorb excess wind and solar generation. This flexibility would assist in supporting the higher shares of renewables in the system.

At a household level the EV charging load may also be optimised to charge off excess rooftop solar generation or assist DNSPs to manage local congestion and voltage control. The interaction of household DER with EV charging also has the potential to reduce the payback period of a solar plus battery investment through the increased self consumption of PV and savings on fuel costs.²⁹⁴ It is expected that the system benefits of flexible charging may be achievable automatically in the future, without requiring conscious consumer action, due to digitalisation.

This is supported by upcoming changes making stationary EV chargers subject to demand response standards, providing the system with greater functionality and responsiveness.²⁹⁵ This change could support and enable greater participation in the upcoming wholesale demand response market, as detailed in section 8.1.8.

Enel X, an example of a business that is actively aggregating EV charging loads, in California currently deploys a 30MW/70MWh aggregated charging capacity which is active in wholesale day-ahead and real-time markets through dynamic management of charging loads. This 'virtual battery' of over 6,000 chargers is able to ramp up and down to meet grid needs with customers involved receiving reward incentives.²⁹⁶

8.4.2

EV as a battery

Vehicle-to-Grid (V2G) and Vehicle-to-Home (V2H) refers to the capability of utilising the EV batteries as behind the meter batteries to discharge electricity to the grid or the home. V2G and V2H home technologies may significantly increase the abilities of consumers to interact with the electricity market and this capability is being included in some new EV models (e.g. Nissan Leaf).

A new retailer to Australia, OVO Energy, UK's second largest electricity retailer, is currently trialling V2G technology in the UK on a two year V2G project involving over 1,000 households with a Nissan Leaf. This trial will provide OVO Energy with an understanding of the technical and social feasibility of V2G services.²⁹⁷

The Australian National University (ANU) is planning to launch an ARENA funded project entitled "Realising Electric Vehicle-to-grid Services" (REVS), in which the consortium partners will be developing advanced metering and control systems to enable V2G services as well as customer value propositions for bringing V2G services to the Australian market. This project will be complemented with research on the broader suite of V2G services for all customer segments.²⁹⁸

294 Institute for Energy Economics and Financial Analysis, *Steering by the Southern Sun: Australians Are Missing a Trick on Solar-Powered Electric Vehicles*, December 2019.

295 Submission to EV Issues paper: AGL, p.4; AEMO, p.4.

296 For more information see <https://evcharging.enelx.com/news/blog/606-why-electric-vehicle-grid-integration-matters-today>.

297 For more information see <https://www.ovenergy.com/electric-cars/vehicle-to-grid-charger>.

298 ANU, submission to EV Issues Paper, p. 3.

What value can batteries provide?

For the 2019 Retail Energy Competition Review the Commission identified potential value streams batteries could provide.

Battery storage devices have a range of technical capabilities, including the provision of energy, voltage control, frequency regulation and reactive power. These capabilities can be used to provide a range of services that are of value to a number of parties, including consumers, retailers, energy service providers, AEMO and network businesses.

1. **Customer services:** Consumers may use battery storage devices to manage their demand, reduce their reliance on the grid, maximise the value of their solar PV system, provide back-up supply or arbitrage their retail tariff.
2. **Network support services:** A network service provider (NSP) may procure the services provided by batteries to help them provide distribution or transmission services. For example batteries are capable of reducing peak load in order to defer network augmentation, or to help manage the technical characteristics of their networks.
3. **Wholesale market services:** Electricity retailers or SGAs may use a battery to participate as a generator in the NEM, or a retailer may use the generated electricity and/or consumed by distributed energy resources in aggregate to manage their risk of participating in the NEM.
4. **Ancillary market services:** Other parties may use distributed energy resources to provide ancillary services, such as FCAS, to AEMO.

A range of parties are able to benefit from the services that battery, stand-alone or within an EV, storage devices can provide. They may do this by aggregating battery storage units, and potentially other types of DER, into a VPP to maximise the value creation potential. It is important that the market design provides price signals regarding the value that batteries and VPPs can provide. This will provide incentives to maximise the value that batteries and VPPs can provide which will reduce overall system costs in the long run.

What are the regulatory barriers to realising these value streams

The key regulatory barriers that exist for realisation of the four value streams are:

1. **Customer services:** no regulatory limitations or barriers have currently been identified.
2. **Network support services:** any party can contract with a NSP for network support. However:
 - a. NSPs will usually require a minimum level of scale within the specific area of the network requiring support.
 - b. Network support is procured through bilateral contracting with NSPs. This is likely to increase transaction costs because of a lack of standardisation of contracting and requirements to negotiate individual contracts with each NSP.
3. **Wholesale market services:** under the current market settings only a retailer or an SGA can buy and sell energy on behalf of the customer from the wholesale market. For battery related value from the wholesale market to be realised, either the retailer or SGA

will need to control the battery (at given times or in given circumstances) so the provision of the service is reliable.

4. **Ancillary market services:** Any party can register as a market ancillary service provider (MASP). However, this is a relatively new feature of the market and there are technical issues related to the Market Ancillary Services Specifications (MASS) which are being worked through by AEMO and participants through the AEMO VPP demonstration program.

There are a number of regulatory processes under way regarding these issues described in section 8.1.9 including the wholesale demand response mechanism rule change, VPP trials and ARENA DEIP work programs. A number of stakeholders highlighted that it is important that EVs are incorporated into existing VPP programs and that barriers to accessing revenues from supporting both network and wholesale markets should be reviewed.²⁹⁹

The Commission considers that it is important that EV chargers can access ancillary services revenues to increase market efficiency and stimulate development of EV charging services. This should be carried out in further work programs that consider enhancements to the SGA category, as described in section 8.3.2, or further DEIP EV work programs to encourage the development of business models utilising the V2G capability of EVs.

What are the technological barriers to realising these value streams

There are also technological barriers to realising these value streams. The EV and the charging infrastructure require the capability to discharge into the grid to access value streams available to V2G.

1. **Car:** Currently the Nissan Leaf is the only vehicle on the market with V2G capability.³⁰⁰
2. **Charging point:** There are two main charging point standards CHAdeMO and CCS. The CHAdeMO charging protocol, favoured by Japanese EV manufacturers, is currently capable of V2G. The CCS charging protocol, favoured by European manufacturers, will become V2G capable when it is updated to CCS-2 by 2022-23. Tesla utilises its own charging protocol and it is unclear if it will become V2G capable in the future.³⁰¹
3. **Charging unit:** There are a limited number of charging units currently on the market that are V2G capable and available units come at a significant price premium.³⁰²

The Commission considers that interoperability and compatibility of charging infrastructure across these three points will make charging more accessible for consumers while reducing the risk of stranded assets and technology obsolescence. This issue is expected to be covered by the DEIP EV working group standards taskforce and through the DER minimum technical standards rule change.

299 Submission to EV Issues paper: Mondo, p.2; Tesla, p.3; AGL, p.12; Swap & Go alliance, p.2.

300 For more information see <https://www.nissan-global.com/EN/ZEROEMISSION/APPROACH/COMPREHENSIVE/ECOSYSTEM/>

301 IRENA, Innovation Outlook: Smart charging for electric vehicles, May 2019, p. 111.

302 For more information see <https://jetcharge.com.au/services/vehicle-to-grid>

8.5 Residential charging

The home will be the most convenient charging location for the majority of EV owners who have off-street parking. EVs are capable of charging off standard household power points (level one charging) or owners can install a dedicated electric vehicle charger to achieve faster charging times (level two charging). In Norway, a country with a significantly higher penetration of EVs, 63 per cent of 11,274 surveyed electric vehicle drivers use level one charging at home.³⁰³ Level two charging provides a faster charge though the ability to install may be limited by a customer's service connection to the network or the capacity of their switchboard.³⁰⁴ For EV owners in apartment buildings with off-street parking the ability to install charging infrastructure will depend on the specifics of each circumstance.

The sale of energy at a customer's residence, as noted in section 8.3.1, would require a retailer authorisation or exemption, bringing consumers under the protection of the NECF or exempt selling guideline. For apartment owners, this would be more case specific and depend on the charging and metering infrastructure.

The potentially large impact EV charging may have on demand and network use at specific times may increase local or system peak demand or cause technical issues which trigger significant network investment.³⁰⁵ A deeper investigation into the technical issues DNSPs are starting to face as DER uptake, including EVs, increases, can be found in the Commission's 2019 ENERF Final report, as detailed in section 8.1.8.

8.5.1 Current residential offers

Currently EV specific retail offerings either provide standard flat rate, time of use or controlled load tariffs with attached products or services value added. The current market offers based off a desktop study and stakeholder feedback include:

- AGL's Electric Vehicle Plan is a flat rate tariff of 25 per cent less than the reference price with an incentive of \$480 in bonus credits over two years and free household carbon emissions offsetting household consumption.³⁰⁶
- Origin are offering an EV plan in partnership with Hyundai that provides Hyundai electric car owners with up to \$750 off a solar or battery system.³⁰⁷
- Powershop is offering a 'super off-peak tariff' for those who own an electric vehicle in Victoria, NSW and Queensland. With the 'super off peak' tariff, customers will pay a considerably reduced usage rate between 12am and 4am on weekdays. Powershop also has a partnership with Chargefox, Australia's largest EV Charging network, that provides Chargefox customers \$100 off their bill when they join Powershop.³⁰⁸

303 Electric Vehicle Council, submission to EV Issues Paper, p.3.

304 Energy Queensland, submission to EV Issues Paper, p.5.

305 Energy Queensland, submission to EV Issues Paper, p.4.

306 For more information see <https://www.agl.com.au/get-connected/electric-vehicles/electric-vehicle-plan>.

307 For more information see <https://www.originenergy.com.au/blog/hyundai-ev-partnership/>.

308 For more information on see <https://www.powershop.com.au/electric-vehicle-tariff/>.

- Ergon Energy Retail, currently offers a load control product for EV charging.³⁰⁹
- Red Energy currently offers the Red EV Saver electricity plan which provides customers who own an EV and a smart meter electricity for free between 12pm and 2pm on Saturdays and Sundays.³¹⁰

Although not EV specific offers, Powerclub and Amber Electric both have residential customer wholesale spot market pass through electricity offers, that could be attractive for EV consumers. By directly passing through spot prices, these tariffs allow these businesses to split off the customer's energy usage charges from charges which they earn a gross margin on.³¹¹ The result of this split is that the retailer no longer has an incentive to increase their profits by increasing the customer's consumption rate. In interviews with Commission staff, for last year's review, Amber Electric noted that its tariff would be likely to become even more dynamic over time as cost reflective network tariffs are rolled out and five minute settlement is introduced.³¹²

Sonnen, a battery service provider that currently offers the sonnenFlat retail package in Australia, has expanded its service offerings into electric mobility in Germany with sonnenDrive. The current sonnenFlat package includes the installation, maintenance and operation of a battery and solar PV system in return for a flat monthly rental fee.³¹³ The expanded offer currently available in Germany, sonnenDrive, offers customers the addition of an EV to this package for an additional monthly subscription fee.³¹⁴ This highlights the potential for EV charging services to be bundled together with other DER assets and managed on behalf consumers by a retailer or third party.

8.5.2 Barriers to innovation in the residential charging market

It is also important to consider what limitations currently exist in the retail market to further innovation in this space.

A number of stakeholders have highlighted that the current limited roll out of smart meters in a number of jurisdictions acts as a barrier to developing retail products. Smart meters are considered by stakeholders to be essential for a greater uptake of more cost reflective tariffs for home EV chargers.³¹⁵ The Commission considers that smart meter roll out is important for improved outcomes for consumers and notes that a review into metering will be carried out later this year.

309 Energy Queensland, submission to EV Issues Paper, p. 5. Ergon Energy is owned by the Queensland Government and operates in regulated areas of regional Queensland.

310 For more information see <https://www.redenergy.com.au/docs/Red-Energy-EV-Saver-Terms-and-Conditions.pdf>.

311 Retailers' gross margin has typically been included in the usage rates. Powerclub charge customers an annual membership fee to cover licensing fees as well as a small daily supply charge to cover operational costs. Amber Electric charge customers a daily supply charge which includes the fixed daily network supply costs, metering costs and a monthly subscription fee.

312 For more information and discussion of the Powerclub and Amber offers see the 2019 Retail Energy Competition Review, Final report, 28 June 2019.

313 The sonnenFlat offer is offered through the authorised retailer Energy Locals.

314 PV Magazine, 'Sonnen adds electric cars and rooftop PV to its monthly payment plan', viewed 31 January 2020, <https://www.pv-magazine.com/2019/11/13/sonnen-adds-electric-cars-and-rooftop-pv-to-its-monthly-payment-plan/>. Also available on SonnenGroup website at <https://sonnen.de/sonnen-drive/>.

315 Submission to EV Issues paper: EV Council, p.3; CEC, p.3.

Another barrier to developing more suitable EV offers highlighted by stakeholders was the suitability of existing network tariffs and the ability of new network tariffs to flow through into retail tariffs.³¹⁶ Encouragingly Ausgrid highlighted that 35,000 customers have been placed on new demand tariffs in eight months³¹⁷ and other networks look to soak up excess solar energy during the day through specific controlled load tariffs.³¹⁸ However, Mondo stated that controlled load tariffs require metering and wiring at a house and lack the dynamism of smarter alternatives such as VPP options.³¹⁹ These issues will likely be considered by the EV DEIP taskforce on residential tariffs and incentives.

For those residing in higher density living, EV charging may not be simple for retailers to provide and there will be a number of barriers to overcome. Those interested in installing an EV charger in an existing building will require approval of the strata or building management. Subsequently, a solution to appropriately bill separate users of common charging facilities or allocate extra network demand charges caused by the installation will be required.³²⁰ Local Government NSW highlighted that packaged commercial products that address this issue do exist and will continue to develop.³²¹

8.5.3 Assessment of residential charging market

Given the limited uptake of EVs so far in Australia it is promising to see five retailers currently with EV specific offers in the market. Interviews with retailers indicated that other retailers also have plans to target EVs. Additionally, the available offers all have separate tariff designs and strategies for targeting EV customers, highlighting that retailers are leveraging off their strengths and competitive advantages to provide value to customers. The Commission considers this indicates retail competition is facilitating innovation and will likely result in offers that meet consumers preferences as EV uptake continues.

For the barriers that do exist it is important that at this early stage the DEIP EV residential tariffs and incentives taskforce look to address some of these issues. The Commission considers that it is important that DNSPs continue to move to tariffs that more closely reflect the costs of network service provision at different points in time. This is likely to result in more dynamic retail tariffs over time. However, it is important that retailers have the ability to manage the extent customers are exposed to cost reflective tariffs in retail offers.

8.6 Non-residential charging

The roll out of public charging infrastructure plays an important role in addressing the charging needs and 'range anxiety' concerns of consumers thus supporting EV uptake and creating new opportunities for retail energy services. The number of public charging stations

316 Submission to EV Issues paper: EV Council, p.3; Evie Networks, p.4, CEC, p.2.

317 Submission to EV Issues paper: Ausgrid, p. 2.

318 Energy Queensland, Submission to EV Issues paper, p.3. Additional to Ergon Energy's controlled load tariff SAPN have created a 'solar sponge' controlled load tariff that could be utilised by EV chargers. For more information see <https://www.sapowernetworks.com.au/public/download.jsp?id=9508>

319 Submission to EV Issues paper: Mondo, p. 2

320 Submission to EV Issues paper: Energy Queensland, p. 5.

321 Submission to EV Issues paper: Local Government NSW, p. 2

in Australia, as stated in section 8.1.5, has increased by 143 per cent between June 2018 and July 2019, with a total of 1,930 stations as of July 2019 including 110 fast charging stations.³²²

It will be important as public charging station deployment continues to increase that they are operated with exposure to the right market signals to ensure efficient operation and utilisation of the grid. Public charging stations can have a large impact on the grid, for example a charging station built in 2017 in Adelaide with eight chargers was equivalent to the connection of 100 new homes.³²³

There are a number of different charging station network operators across Australia which have so far been predominantly either automotive associations, EV manufacturers, government owned network corporations or private developers. There is a growing prevalence of Australian public charging operators moving towards user-pays centric business models with free charging gradually being phased out.³²⁴

Each charging station network can have different usage, account and payment requirements that act as a barrier to accessibility for consumers using public chargers.³²⁵ Tritium, an Australian EV DC fast charging specialist, has recently launched a 'plug and charge' capable unit that increases the interoperability between different public charging networks.³²⁶ This unit is capable of communicating directly with the EV for payment requirements, removing the need for a new smartphone app or network membership RFID card to access different charging networks.³²⁷

Shared mobility services, ride-hailing and car-sharing, currently account for around five per cent of global passenger vehicle distance travelled. This is predicted to rise to 19 per cent by 2040. The shared mobility services fleet is predicted to transition to EVs much faster than the public passenger vehicles and may heavily utilise public charging facilities.³²⁸

The sale of energy in a non-residential charging situation would not require a retailer authorisation or exemption as it does not occur at a consumer's residence. This brings consumers under the protection of the ACL for these situations.

8.6.1

En-route

The en-route charging location will be the most familiar to current ICE drivers as they will likely be mostly co-located with current service stations and follow a similar business model. Though there has only been limited deployment of EV charging infrastructure by service station operators in Australia they have been shifting into this space faster in other markets

³²² State of Electric Vehicles, Electric Vehicle Council, August 2019, p. 19

³²³ Everengi, Managing the impacts of renewably powered electric vehicles on electricity distribution networks, 2019. These chargers included two 22kW AC chargers, two 50kW DC fast chargers and four 125kW Tesla Superchargers.

³²⁴ Energeia, Electric Vehicle Market Study, May 2019, p. 9.

³²⁵ Submission to EV Issues paper: Blacktown City Council, p.1.

³²⁶ This functionality has previously only been available for Tesla owners utilising the Tesla EV charger network.

³²⁷ For more information see <https://thedriven.io/2020/05/21/tritium-unveils-world-first-plug-and-charge-ev-fast-charger/>.

³²⁸ Bloomberg NEF, Electric Vehicle Outlook 2019, viewed 23 January 2020, <https://about.bnef.com/electric-vehicle-outlook/#toc-viewreport>.

and are well placed to develop and manage Australia's future en-route public charging network.³²⁹

Energy Queensland highlighted that EV level 3 charger installations lack the considerable environmental and planning requirements of petrol stations which should lead to a competitive market for fast charging en-route services to form.³³⁰ Though, other stakeholders highlighted that the application of existing network tariffs leads to unsustainable and excessive energy supply costs for level 3 chargers. They stated this is due to tariffs reflecting historical load profiles and bearing no resemblance to EV fast chargers' volatile load profiles and low load factors.³³¹

Evie Networks flagged that network connection processes are inefficient due to protracted grid connection time frames, connection conditions lacking national standardisation, network hosting capacity lacking transparency and an absence of interconnectivity frameworks.³³² Though, other stakeholders highlighted that installation of solar and battery storage co-located with fast charging sites can help to smooth demand on the network and reduces connection capacity costs.³³³ These issues will be considered by the DEIP EV taskforce on high capacity tariffs and connections.

8.6.2

Destination

Destination charging locations are where an EV will likely be left for a longer period while another task is carried out, such as shopping, dining or working. It is currently common for retail business locations to attract customers with EV charging facilities that are either free or pay for use.

A pay for use model would commonly rent the parking spot out to a third party who carries out installation and charges for its use. This could also be the case for government owned sites, apartment complexes and workplace employee car parks. Local Government NSW stated that MTR could be beneficial for these situations.³³⁴

Workplace charging may also be an integral part of many consumers' charging habits, especially those without access to charging infrastructure at home. A study of EV charging behaviour in the US involving 17,000 charging locations and 8,200 EVs found that over 40 per cent of charging on weekdays was carried out at the workplace.³³⁵

Vehicle purchases in Australia by business, government and rental fleets account for around half of annual new vehicle sales.³³⁶ The electrification of these fleets and the long durations

329 Energeia, Electric Vehicle Market Study, May 2019, p. 9.

330 Submission to EV Issues paper: Energy Queensland, p. 4

331 Submission to EV Issues paper: Energy Queensland, p. 4, Evie Networks, p. 4, EV Council, p. 3.

332 Submission to EV Issues paper: Evie networks, p. 3

333 Submission to EV Issues paper: Magnis Energy Technology Limited, p.8, Ausnet Services, p.2. A recent ChargeFox EV fast charging site in Goulburn is an example of this with a battery system installed as a cheaper alternative to upgrading the sites network connection. For more information see <https://thedriven.io/2020/05/07/new-goulburn-battery-beats-grid-upgrade-for-electric-vehicle-ultra-rapid-charging/>

334 Submission to EV Issues paper, Local Government NSW, p. 2.

335 Idaho National Laboratory, Plug-in Electric Vehicle and Infrastructure Analysis. September 2015.

336 Australian Financial Review, Car fleets are big business in Australia, Nina Hendy, May 2018.

during the day, i.e. during work hours, when cars may be parked lead to a significant opportunity for charging management and to soak up co-located solar generation. This may be a focus of some retailers.³³⁷

8.6.3

Street

Street charging of an EV at public charge points may become common in densely populated areas with a higher proportion of residents without access to dedicated charging infrastructure in off-street parking. This is also likely to be required wherever shared mobility services are utilised (e.g. GoGet). To date, street charging facilities have been mostly provided by local councils. Councils have installed public charges to avoid situations in which extension charging cords are used across the public domain.³³⁸

With a greater uptake of EVs, street chargers may become more ubiquitous, though councils have noted that the high cost of installing a new meter for multiple chargepoints along a street is a barrier.³³⁹ An example of a retailer installing street charging is British retailer OVO Energy, in partnership with Ubitricity running a trial in London installing charging points in 50 street lamp posts.³⁴⁰

Residential chargers which are offered up for public use through peer-to-peer (P2P) platforms could also improve the availability of chargers for owners without off-street parking or for shared mobility services. An example of this is Everty which currently operates a P2P charging network utilising existing residential and commercial charging infrastructure in Australia.³⁴¹

337 Submission to EV Issues paper: AGL, p. 11, Richard Davoren (private individual), p. 1.

338 Submission to EV Issues paper: Blacktown City Council, p. 2, Local Government NSW, p. 2.

339 Submission to EV Issues paper: Local Government NSW, p. 3

340 For more information see <https://www.ubitricity.co.uk/>.

341 For more information see <https://everty.com.au/>.

9

CONSUMER PROTECTIONS IN AN EVOLVING MARKET: THE CURRENT FRAMEWORK AND THE EVOLVING MARKET

BOX 17: SUMMARY OF KEY FINDINGS

- The NECF was created to protect consumers in a market where energy flowed to the consumer, and retail offerings were largely homogeneous. This is no longer the case.
- The market is undergoing a transition. Consumers can import and export energy via new technologies, there is increasing competition, a trend to digitalisation and consumer preferences are diverging. These are combining to test the boundaries of consumer protections in the NECF.
- While the retail market evolution is delivering innovation and new energy products and services to consumers, it is important for the customer protections framework to also adapt and continue to protect the interest of customers.
- The Commission has analysed different forms of regulation for their applicability to the evolving energy market. This work builds on the mapping of the Australian Consumer Law (ACL) and NECF that was done in the *2019 retail energy competition review*.
- The analysis found that a variety of regulatory approaches could be used to develop a fit-for-purpose consumer protection framework that can accommodate new products and services, while also ensuring potential harms to consumers are minimised.
- One of the main opportunities is to consider when a principles-based approach can be used, in order to provide flexibility for the rules to keep pace with the market.
- However, principles-base regulation can be implemented in various ways, and there is a need to consider a series of factors before determining the right approach for each circumstance. For example:
 - clarity on the expected consumer outcomes can help with developing and interpreting relevant principles
 - processes can be led by consumers, industry or the regulator
 - participation in processes can be voluntary or mandatory.
- These choices will influence which processes are more responsive to market changes and consumer needs, which are more effective at protecting consumers, and the ease with which compliance can be monitored and enforced.
- The Commission considers that the growing diversity in the market is likely to require more diversity in the regulatory approaches that are used, to strike the right balance between facilitating innovation and consumer protection.
- The Commission will continue to look for opportunities to move to these different regulatory approaches to suit the current and emerging market conditions.

9.1 Introduction

The NECF and ACL are the two frameworks that offer consumer protections to energy consumers in the NEM. Last year the Commission published the *2019 Retail energy competition review* final report. In the report the Commission mapped the relevant consumer protections for energy consumers in the NEM under the NECF and the ACL. This was the first step in assessing whether energy consumers are receiving appropriate protections and whether barriers to innovation are minimised.

In this mapping exercise, the Commission noted that energy consumers are protected by the core principles of the ACL's consumer protections for the supply of goods and services. The ACL includes prohibitions to protect consumers from certain conducts that harm effective competition, fair trade and commerce. Complementary to the general protections under the ACL, energy consumers are further protected by the energy-specific provisions under the NECF. While both frameworks limit energy retail practices and market participants' behaviour, the NECF provides more targeted protections for the sale and supply of energy. These protections focus on energy as an essential service, vulnerable consumers and information requirements.

The Commission concluded the ACL and the NECF largely complement each other to maintain consumer protections in the provision of energy. However, given the evolution and digitalisation of the energy market, the Commission noted the need for further analysis in two areas:

1. The current information related provisions in the NECF are prescriptive and may prevent consumers from making the most of innovation, particularly in relation to digital technologies. Furthermore, in recent years there have been piecemeal, one off additions to these information provisions.
2. The combination of market developments and a range of new, non-traditional energy related products and services raise questions about the application of the NECF and if these should be considered under energy-specific consumer regulation.

The Commission has progressed both of these areas as part of this report. This chapter includes an analysis on the current energy-specific consumer framework and characterises the evolving energy market. This forms the basis for the following chapters which deal with the two issues outlined above. Chapter 10 focuses on the traditional sale of energy and potential changes to the NECF needed to allow consumers to make the most of digital technologies. Chapter 11 focuses on how market developments and new, non-traditional energy products and services are raising key questions from a regulatory perspective.

9.1.1 What the AEMC has done in the last 12 months

On 12 December 2019, the AEMC published two issues papers to start the review of consumer protections in the evolving energy market. The first paper focused on new energy products and services (Issues paper 1) and the second on the traditional sale of energy (Issues paper 2). Submissions to both papers closed on 13 February 2020. The Commission received 24 submissions and held individual meetings with stakeholders at their request.

On 6 February 2020, the AEMC held a public workshop to discuss ideas and receive stakeholder feedback. Fifty-two stakeholders attended the workshop, representing 26 organisations, ranging from retailers, new technology suppliers, energy departments, consumer advocates, energy Ombudsmen and market bodies.³⁴²

In relation to the traditional sale of energy, most retailers encouraged changes to the NECF, submitting that the NECF is very prescriptive and inhibits innovation in a more digital market. EnergyAustralia described the review as:³⁴³

a positive initial step in addressing the shortcomings of recent reform since 2015 which has been in the form of piecemeal individual rule changes, without a broader structural view on regulatory reform.

Consumer groups were more cautious, noting that while there have been a number of people that have started engaging with the market digitally, not everyone is capable or willing to participate in the market through these new innovations.

In relation to market developments and new, non-traditional energy products and services, stakeholders were generally supportive of the review. Consumer advocates noted it is a timely opportunity to "*ensure consumer protections are robust and applicable in the future*"³⁴⁴ and "*...to explore more flexible, 'principle-based' models, which can be more easily adapted to mitigate changing risks for consumers...*".³⁴⁵ AEMO highlighted their support on the "*...timing and scope the review, particularly as the boundary between the traditional sale of energy and new energy products and services is becoming increasingly blurred.*"³⁴⁶

All submissions were supportive of the Commission's forward-looking review with many recommending a more expansive review into the NECF. For example the Energy and Water Ombudsman South Australia (EWOSA) flagged their support of a more comprehensive review stating "...it would be timely to initiate a full review of the NECF, as the framework has been in operation for a lengthy period and the market has undergone significant change over that time."³⁴⁷

The Commission and stakeholders recognise that it is vital to maintain consumer protections in this more dynamic environment while also meeting their expectations. A retailer noted that "[i]n future proofing the framework it is important that the changing needs and expectations of consumers are met and that regulation that has been made redundant is removed."³⁴⁸ The Commission is aiming to future proof the NECF to maintain consumer protections and balance consumer expectations with the opportunities of a digitalised market.

342 AEMC, Consumer protections in an evolving market - Public workshop, 6 February 2020, for further details please see workshop discussion notes available on the project's [website](#).

343 EnergyAustralia, submission to issues paper 1, p. 1, February 2020.

344 EWON, submission to issues papers, p. 2.

345 Energy Consumers Australia, submission to issues papers, p.1.

346 AEMO, submission to issues papers, p. 2.

347 Energy and Water Ombudsman South Australia, Submission to Issues Paper 2, p. 2, February 2020.

348 ERM Power, Submission to Issues paper 2, p. 3, February 2020.

External consultant

As part of the review of the NECF, the Commission engaged consultant, Regulatory Economics, to provide a comparative analysis on other industries and jurisdictions to identify:

- how the regulation of essential services has evolved with technology advances
- areas of consumer protection that would be best suited to mandatory regulation, voluntary industry regulation, and co-regulation
- principles that could guide potential modifications to the NECF given the evolution and digitalisation of the market.

Throughout this chapter, we draw on Regulatory Economics' report to inform our analysis. The final report is published with the 2020 Retail energy competition review on our [website](#).

9.2 Why energy-specific consumer regulation is needed

In the mapping exercise developed in our *2019 Retail energy competition review*, the Commission analysed some differences between the ACL and the NECF. An infographic summarising this mapping exercise, with key consumer protections under the ACL and the NECF, is available [here](#). Relevant to this second stage of the analysis in consumer protections, is the difference identified on the scope of each of these frameworks.

The ACL provides certain protections for energy consumers in relation to the supply of goods and services, including the supply of energy and energy related products (such as solar panels). It also includes prohibitions to protect consumers from certain conduct that harms effective competition, fair trade and commerce.

The NECF complements the ACL and specifically regulates the sale and supply of electricity and gas to retail customers, and harmonises most energy consumer protections across participating jurisdictions.³⁴⁹

The NECF was developed in recognition that energy is an essential service that requires specific consumer protections above general consumer law. Accordingly, the NECF requires that at least one retailer will be obliged to supply a small customer in the NEM. This seeks to eliminate the risk of a customer being refused service by all retailers and therefore having no access to energy.³⁵⁰ It also includes the concept that a customer should be supplied on fair and reasonable terms.³⁵¹ Additionally, it includes provisions on a range of other requirements to make sure consumers have access to energy supply and network services (for example, guaranteed connection obligations, limitations on disconnections and energy interruption, etc.).³⁵²

349 AEMC, *2019 Retail energy competition review — Final report*, 28 June 2020 p. 163.

350 NERL (Adoption) Bill 2012, Second Reading Speech.

351 NERL (Adoption) Bill 2012, Second Reading Speech and NERL, Section 88.

352 AEMC, *2019 Retail energy competition review — final report*, 28 June 2019. See section 9.1.6.

9.3 Approaches to regulation

For the purposes of this review, the Commission has developed a framework to analyse the general approaches to regulation. This was used to assist the Commission in making recommendations for the traditional sale of energy and to explore regulatory approaches for new energy products and services (set out in Chapters 10 and 11).

The Commission encourages stakeholders to use the following analysis when considering submitting rule change requests under the National Energy Retail Rules (NERR). Similarly, the Commission has and will continue to consider this analysis in the future when it undertakes retail rule changes, especially in the context of consumer protection regulation. This is because modification to the NERR via rule changes can have long-term implications.

This section is divided in two subsections and will explore the benefits and challenges of different forms of regulation as follows:

1. principles-based and prescriptive regulation
2. mandatory and voluntary regulation.

9.3.1 Principles-based and prescriptive regulation

The NECF was developed in the context of regulating one form of energy supply, the traditional sale of energy from a retailer to a customer's premises through the interconnected power system. However, the energy market evolution means customers can now generate and store their own energy (via solar PV and batteries). A way to approach the development of consumer protections in this changing energy market is to assess where and when principles-based provisions are more practical, and where and when prescriptive provisions are needed.

Characteristics of principles-based and prescriptive frameworks

Scope – Level of specificity

Prescriptive regulation sets out in detail how regulated businesses should behave. This regulatory approach outlines specific requirements to fit every business while assuming that these businesses have similar characteristics. It is generally a 'one size fits all' regulatory approach. Prescriptive regulation is clear on how to comply with the rules by standardising processes and requirements amongst businesses.³⁵³

Where the range of products, services and business models is narrow with similar market participants (suppliers and consumers) and similar participant preferences and incentives (e.g. a specific consumer profile), it may be more appropriate to prescribe obligations and requirements under a 'one size fits all' regulatory approach.³⁵⁴ However, because it is highly detailed, prescriptive regulation can require significant effort to review and amend over time if any of these aspects change. In particular, if the market is constantly evolving, prescriptive

³⁵³ Regulatory Economics, *Consumer protection frameworks for new energy products and services and the traditional sale of energy in Australia*, final report for the Australian Energy Market Commission, 2020, p. 49.

³⁵⁴ Ibid.

regulation is unlikely to be able to easily keep up and may stifle innovation and market developments.

Prescriptive regulation can also target specific consumer issues or concerns and specify particular outcomes. Where the regulator has identified a specific practice that harms competition or consumers, a prescriptive approach can prohibit the specific practice.

In contrast to prescriptive regulation, principles-based regulatory frameworks specify an expected regulatory outcome and let suppliers choose the means by which they achieve the outcome.³⁵⁵ Principles-based regulation has a more general and universal application because it is less specific to business models. It sets a broad scope with principles that apply to every business (regulated participant), who must comply regardless of their specific characteristics or business incentives. This approach is likely to be more effective where there are new products and services, constant innovation, different market participants or diverse participants' preferences as it is more accommodating and adaptive to market developments.

BOX 18: EXAMPLE OF PRESCRIPTIVE REGULATION IN THE NECF

Rule 25 of the NERR specifies 24 requirements that an energy bill must include. This means that every retailer in the market must provide its small customers with all 24 pieces of information on their bill, regardless of the consumer's preferences.

Digitalisation means that retailers are increasingly offering more options to consumers in how they receive their bills. Applying the same requirements to a less homogeneous group of consumers and retailers is challenging this provision. This raises the question of whether these requirements continue to be fit for purpose.

In June 2018, the Commission received a rule change request to consider if energy bills must include start and end meter readings in energy bills for consumers who have a smart 'interval' meter. The Commission found this requirement was practical for consumers with accumulation meters. However, for consumers with smart meters this was not as practical and including such information on the bill could have an unintended consequence of increasing consumer confusion. This was because the meter reading would not easily correspond to the consumer's energy usage (as interval meters measure usage in intervals and not on a cumulative basis).

In April 2020, the Minister for Energy, the Hon Angus Taylor, on behalf of the Australian Government, submitted the *Bill contents and billing requirements* rule change request. As part of this, the Commission will consider how bill content requirements under the NECF can better reflect consumer needs. This is discussed further in chapter 10.

Source: AEMC and NERR

³⁵⁵ Ibid, p. 2.

Compliance

There is debate about the benefits and drawbacks of a principles-based versus prescriptive-based regulatory approach in achieving effective compliance of obligations. The question on which approach is better depends on the subject matter. Where there are common consumer risks, similar technologies and similar participants, a 'one size fits all' may be a good approach.³⁵⁶

Principles-based regulation is broad and should contain well-articulated principles that businesses are expected to follow. With this approach, the consumer framework would be specific about the regulatory outcomes expected. Businesses would have to decide what they need to do to meet these outcomes and document how their actions would achieve this. There would be less ambiguity about these outcomes but there would be a level of uncertainty related to the ways business must comply with the framework. With principles-based regulation there would be more room for interpretation on the ways the outcome can be achieved. The regulatory task is then to monitor outcomes and work with industry to ensure the specified outcomes are achieved.

In contrast, in a prescriptive approach, regulation establishes in detail what the businesses can and cannot do (input focussed). The rules specify what businesses must do to comply but the regulatory objective may be ambiguous. This leaves space to find a way to circumvent the regulatory objective but continue to comply with the process required in the rule, commonly known as regulatory arbitrage.³⁵⁷ Under this approach, regulated businesses have more clarity on the steps they need to take to comply with regulation and their compliance systems are focused in specifically delivering what is prescribed. Prescriptive regulation provides clarity about the compliance process and enforcement bodies can easily apply the provisions.

BOX 19: EXAMPLE OF PRINCIPLE-BASED COMPLIANCE IN THE NECF

In relation to hardship customers, the NERL sets an expected consumer outcome by requiring that retailers provide support and assistance to their customers who are experiencing difficulty paying their energy bills due to hardship. Under section 43 of the NERL, energy retailers must develop and maintain a customer hardship policy to identify hardship customers and assist them in better managing their bills. Beyond a list of minimum requirements, the NERL does not prescribe specific details about what each retailer must include in their hardship policies.

On 15 November 2018, the Commission made a rule to strengthen retailers' hardship policies. The final rule requires the AER to develop a Customer Hardship Policy Guideline that includes consistent and specific statements that retailers must include in their hardship policies. The

³⁵⁶ Regulatory Economics, *Consumer protection frameworks for new energy products and services and the traditional sale of energy in Australia*, final report for the Australian Energy Market Commission, 2020, p. 49.

³⁵⁷ FRANTZ, Pascal et al., 'Rule vs Principles Based Financial Regulation 1', London School of Economics, *SSRN publication*, 25 November 2014.

aim of these statements is to provide guidance to customers (and their advocates) on their rights under the hardship policy, while also allowing retailers to develop their hardship programs to meet their customers' needs. These changes to the rules, follow the principles-based approach in the NERL where the expected outcome is clear, while giving flexibility to retailers on the way hardship policies are developed.

On 29 March 2019, the AER published its Customer Hardship Policy Guideline setting out the requirements to be included in a customer hardship policy. This guideline provides the details of what industry must include in its customer hardship policy without requiring these to be in the rules. The benefit of this approach is that it allows the AER to modify the Guidelines in consultation with industry in a more timely way than would occur if the prescription was in the rules or the law.

Source: AEMC, NERR and Regulatory Economics, *Consumer protection frameworks for new energy products and services and the traditional sale of energy in Australia*, final report for the Australian Energy Market Commission, 2020 p. 2.

Figure 9.1 summarises the characteristics of prescriptive and principles-based regulatory approaches.

Figure 9.1: Prescriptive and Principles-based regulatory approach

	Prescriptive	Principles-based
Scope	Specific market model	Allow market developments – innovation
	Specific consumer profile	Allow different consumer preferences
	Limited application – applies to particular services and products	General/broad application
Compliance	Inputs – how things should be done	Outcomes focused – result/objective
	Direct application – less scope for interpretation	Discretionary application – interpretation

Source: AEMC, Regulatory economics, *Consumer protection frameworks for new energy products and services and the traditional sale of energy in Australia*, Final report for the Australian Energy Market Commission, 2020, p. 2.

Benefits and challenges

A prescriptive approach is generally less flexible and businesses may simply follow what is specified in the rule rather than actually understanding the overall context or the desired outcome. This can result in institutionalising a culture of dependency on the rules telling a business what to do without seeking the regulatory outcome.³⁵⁸ In contrast, a principles-based approach provides "flexibility and room for judgement in different circumstances", creating less dependency on the rules and promoting a focus on outcomes.³⁵⁹

However, there are circumstances where a prescriptive approach can target a market issue or a practice that may harm consumers. Being specific about what businesses can or cannot do

³⁵⁸ Surendra Arjoom, 'Striking a balance between rules and principles-based approaches for effective governance: A risks-based approach', *Journal of Business Ethics*, 2006, p. 70.

³⁵⁹ *Ibid*, p. 73.

might be the only way to restrict a behaviour that is well-known by the regulator as harmful. A principles-based approach will specify the outcome desired but if there is a specific problem the regulator needs to address, having more details and prescribing what is the detriment to consumers or the market may be the most efficient regulatory approach. A principles-based approach also relies on effective monitoring and compliance activity by the regulator so that both the spirit and the letter of the rules are adhered to.

BOX 20: EXAMPLE WHERE A MORE PRESCRIPTIVE APPROACH WAS NECESSARY

Conditional discounts are allowed under the ACL. However, the ACCC identified energy market retailers were offering large conditional discounts causing significant harm to a material group of consumers. A significant portion of consumers were unable to realise their discounts, with 58 per cent of hardship consumers failing to meet a pay-on-time condition. A rule change request was submitted to the Commission to solve this specific market issue.

The Commission found that the magnitude of conditional discounts (a significant portion were priced above 20 per cent prior to July 2019) indicated retailers were passing on a financial risk to consumers beyond the costs associated with late payment. The risk imbalance between retailers and consumers, particularly within a context where confusing discounting practices existed, meant that a cap on conditional discounts was necessary. Subsequently, the AEMC made a rule that restricted the level of conditional discounts and fees in energy retail contracts to reasonable costs retailers are likely to incur when a consumer fails to satisfy a payment condition.

These two approaches are not exclusive and a consumer regulatory framework could implement both. In practice, regulations that implement both approaches are typically adopted which combine elements of each approach to regulation. Incorporating a balance between a prescriptive approach within a well-established principles-based framework that focuses on the regulatory objective, would combine the advantages of both regulatory approaches.³⁶⁰

Currently, the NECF has a high level of prescription. The rate of change in the market presents an opportunity to evolve consumer protections by moving to a principles-based approach in some circumstances.³⁶¹

As mentioned, the Commission's final rule for the *Strengthening protections for customers in hardship* rule change is an example where the NECF included a principles-based approach to protect consumers in hardship but additional requirements were needed to improve compliance. The Commission determined that consistency across policies is an important outcome but retailers should have the flexibility in how they implement their minimum requirements to best suit their customers.³⁶² Hardship provisions under the NECF are a good

³⁶⁰ Regulatory Economics, *Consumer protection frameworks for new energy products and services and the traditional sale of energy in Australia*, final report for the Australian Energy Market Commission, 2020, p. 29.

³⁶¹ Please see Chapter 10.

³⁶² AEMC, *Strengthening protections for customers in hardship*, Final determination, 11 November 2018.

example that illustrate a balanced approach between principles-based provisions and prescription.

Stakeholder feedback

During the AEMC workshop held in February, stakeholders discussed the benefits and challenges of both approaches. It was noted that prescriptive frameworks are easier to enforce and to comply with. However, it also means some level of inflexibility which limits the ability of retailers to respond or adapt to technological change. In its submission, Energy Consumers Australia (ECA) stated that this review is "an opportunity to explore more flexible, 'principles-based' models, which can be more easily adapted to mitigate changing risks for consumers (...)".³⁶³ In general, stakeholders agree that the Commission should continue to explore moving from more prescriptive to more principles-based regulation considering the benefits and challenges that this implies.³⁶⁴

Figure 9.2 includes the mentioned benefits and challenges of each approach.

Figure 9.2: Benefits and challenges for principles and rules based regulatory approaches

	Benefits	Challenges
Principles-based	Flexibility on how outcomes are achieved/implemented by regulated businesses	Inconsistent implementation across the industry
	Proportional regulation to the complexity of the market and businesses (high level of innovation and fast change)	Requires a strong and active compliance body (regulator)
	Risk-based	May require businesses to have a higher initial budget for compliance
	Flexible over time	Some level of uncertainty for regulated businesses
Prescriptive	Consistent implementation across the industry (easier to implement)	Potential loopholes – regulatory arbitrage
	Compliance body has established expectations as the regulation clearly sets out what business must do (provide confidence to regulators)	Regulation is likely to be left behind by the complexity of the market or fast pace of change
	Higher level of certainty for regulated businesses	Inflexibility over time

Source: AEMC based on Surendra Arjoom, *Striking a balance between rules and principles-based approaches for effective governance: A risks-based approach*, Journal of Business Ethics, 2006; Brigitte Brugemestre et al, *Rule-based versus principle-based regulatory compliance*, Delft University of Technology, 2009.

9.3.2

Mandatory regulation and voluntary regulation

This section analyses the benefits and challenges of mandatory and voluntary regulation and how a mix of these could be an opportunity to future-proof the NECF.

Characteristics of mandatory and voluntary regulation

Mandatory regulation is incorporated in a set of binding regulations, either in laws or rules developed by a legislator or rule maker under their statutory powers. Mandatory regulation

³⁶³ Energy Consumers Australia, submission to issues paper 1, p. 1.

³⁶⁴ Submissions to issues paper 1: AEMO, p. 6; AER, p. 7; AGL, p.2; Clean Energy Council, p. 3; Energy Consumers Australia, pp. 4, 6; EWOV, p. 8; NSW Business Chamber, p. 2.

includes requirements, obligations and practices which every business must comply with, and sanctions for non-compliance and/or contravention. The NECF is a mandatory framework. Using statutory powers, governments have developed a set of laws and rules to regulate the relationship between energy retailers, distributors and customers. In contrast with other industries such as telecommunications, the NECF does not include provisions to allow and promote the use of industry self-regulation.³⁶⁵

In contrast, voluntary regulation is incorporated in codes of conduct, best practice codes or in general, industry non-binding codes. It is voluntarily developed by businesses in the specific sector. In the absence of legal compulsion, this means there is discretion in whether a business chooses to be a signatory or how it will comply with the code.

In Australia, the ACCC has oversight of industry regulation developed through voluntary and mandatory industry codes.³⁶⁶ The ACCC approves voluntary industry codes of conduct and works with industry groups to promote their success. If participants in the energy sector wish to introduce an industry code of conduct or a consumer code, they must do so through that process. Currently, the energy market does not have any voluntary industry codes for the traditional sale of energy.³⁶⁷

There are also approaches which combine binding regulations under the law or rules (developed under statutory power) and industry codes that could be binding or non-binding, depending on each specific case. Usually, these industry codes are integrated with the mandatory framework as the mandatory framework requires its development. In some cases, the mandatory framework requires voluntary codes to be approved and reviewed by a statutory body (e.g. the regulator). In other cases, industry codes are mandatory.

The telecommunications and banking sectors in Australia have developed a co-regulatory framework where associations representing the industry develop an industry code via a consultation process with stakeholders, and public agencies and bodies. The *Telecommunications Act 1997* states the Australian Communication and Media Authority (ACMA) has to be satisfied that certain conditions have been met before it can register an industry code.³⁶⁸ Once a code is registered by ACMA it becomes effective and ACMA can then enforce compliance with the code.

Benefits and challenges

Mandatory regulation prescribes industry-wide obligations and requirements which, in general, are well-known across the industry. This model provides certainty to the industry and consumers. Given that mandatory regulation is generally somewhat enduring and changes are not frequent, industry compliance costs are generally predictable and not subject to change.

³⁶⁵ *Telecommunications Act 1997*, Part 1, Section 4 Regulatory policy.

³⁶⁶ *Competition and Consumer Act 2010*, Part IVB — Industry Codes.

³⁶⁷ The Energy Charter is an industry body which to date, has not submitted a voluntary code of conduct under the ACL and ACCC procedures. There is a mandatory Electricity Retail Code prescribed under the ACL that applies to all retailers that supply electricity to small customers.

³⁶⁸ *Telecommunications Act 1997*, sections 112-113.

However, most of the challenges around mandatory regulation are related to the inflexibility of this model. The application of specific and rigid provisions has the potential to hinder innovation as it maintains the *status quo*. It is likely that less dynamic markets would have mandatory frameworks over voluntary flexible frameworks.

In the context of consumer protection, voluntary regulation (or self-regulation) has some potential advantages over government regulation (statutory mandatory regulation). For example, the Australian government has stated that "*effective self-regulated codes are generally the preferred method of addressing specific problems in an industry.*"³⁶⁹ Similarly the ACCC has stated that the advantages of self-regulation include:³⁷⁰

- It provides a flexible approach to market problems and has the ability to adapt to change. This offers flexibility to industry to develop product innovation, diversification and development.³⁷¹
- It addresses industry specific problems, practices and consumer needs and can respond more readily (faster) to the dynamics of the market place.³⁷²
- Given it is developed by the industry there is a sense of ownership and a higher level of accountability from them.
- Can provide a cost effective approach in contrast to statutory regulation. It has a more streamlined process compared to a legislative change and therefore, lower transactional costs. Voluntary regulation can involve lower administrative and enforcement costs than statutory regulation.³⁷³
- Can provide public access to quick and informal complaints handling and redress mechanisms. These are easier and cheaper to access for consumers.³⁷⁴

There have been attempts in many sectors of industry to overcome market failure or issues by implementing self-regulation.³⁷⁵ To succeed in achieving their objectives, voluntary codes must overcome some challenges. The ACCC developed guidelines to set out the essential criteria needed for an effective voluntary industry code of conduct.³⁷⁶

The main challenges with industry voluntary codes relate to participation and compliance. Given that industry choose to be a signatory of these type of codes, its effectiveness will depend on two main factors:

369 The Treasury, Australian Government, *Industry Code of Conduct — Policy Framework*, November 2017, p. 2

370 ACCC, *Industry regulation — can voluntary self-regulation ever be effective?*, Centre for Corporate Public Affairs 2003 Oration, Graeme Samuel (Chairman), Melbourne, 20 November 2003, pp.3-5.

371 Ibid.

372 Regulatory economics, *Consumer protection frameworks for new energy products and services and the traditional sale of energy in Australia*, final report for the Australian Energy Market Commission, 2020, p. 159.

373 Ibid.

374 Ibid.

375 ACCC, *Industry regulation - can voluntary self-regulation ever be effective?*, Centre for Corporate Public Affairs 2003 Oration, Graeme Samuel (Chairman), Melbourne, 20 November 2003.

376 Addressing stakeholder concerns; consultation process for drafting; clarity in its contents; responsible code administration and implementation; transparency in operation; industry-wide coverage; effective complaints handling; in-house compliance; sanctions for non-compliance; independent review of complaints handling decisions; industry and consumer awareness; data collection from a reporting point of view; regular monitoring for compliance; annual reports; regular reviews to incorporate changes and meet objectives; performance indicators. For further details please see: ACCC, *Industry regulation - can voluntary self-regulation ever be effective?*, Centre for Corporate Public Affairs 2003 Oration, Graeme Samuel (Chairman), Melbourne, 20 November 2003; ACCC, *Guidelines for developing effective voluntary industry codes of conduct*, July 2011.

1. its coverage
2. signatories complying with what they committed to under the code.

Both factors are key differences with mandatory regulation, and two reasons that have led to governments adopting mix of mandatory and self-regulation (co-regulation).

In Australia, the telecommunications and banking sectors have adopted some level of co-regulation. Insights from the telecommunications and banking sector experience with industry codes is that enforcement has been lacking in the past. In telecommunications, some consumer bodies have argued there is a need for a 'stronger regulatory posture' from the regulator (the ACMA). However, reviews into across sectors have not recommended moving away from co-regulation.³⁷⁷ In banking, the Financial Services Royal Commission expressly acknowledged the importance of the banking industry being able to continue to develop their industry codes over time.³⁷⁸

ACMA recommended adopting a stronger 'regulatory posture'. Similarly, the Royal Commission into banking recommended that Australian Securities and Investment Commission's (ASIC) role must go further and it should be more active in compliance and enforcement. It also recommended that provisions in the Code of Banking Practice, a code owned and developed by the Australian Banking Association, be designated as 'enforceable code provisions' which could be pursued by consumers through the courts.³⁷⁹

The reviews of the telecommunications and banking sectors noted that, while issues and problems were identified with industry codes, the industry code approach should not be "*entirely abandoned in favour of statutory regulation*".³⁸⁰ The Commission considers that the growing diversity in the market is likely to require more diversity in the regulatory approaches that are used, to strike the right balance between facilitating innovation and consumer protection. However, this will depend on a number of factors and will require careful consideration, monitoring and review to determine it is the right approach for energy consumers.

Industry has shown some willingness to improve consumer outcomes and has created instruments, such as the Energy Charter, to deliver energy in line with community expectations.³⁸¹ However, further review of the effectiveness of industry led voluntary codes are effective and would be reviewed on a case by case basis. The Commission will continue looking for opportunities to move to more flexible regulatory approaches where they suit the current and emerging market conditions.

Figure 9.3 summarises the benefits and challenges of voluntary and mandatory regulation.

377 Regulatory Economics, *Consumer protection frameworks for new energy products and services and the traditional sale of energy in Australia*, Final report for the Australian Energy Market Commission, pp. 156-157.

378 Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry, 2019, p. 111.

379 Regulatory Economics., *Consumer protection frameworks for new energy products and services and the traditional sale of energy in Australia*, final report for the Australian Energy Market Commission, 2020, p. 157.

380 Ibid, p. 156.

381 For further details, please see <https://www.theenergycharter.com.au/>

Figure 9.3: Benefits and challenges of voluntary and mandatory regulation

	Benefits	Challenges
Voluntary	Flexibility for product innovation, market diversification and development	Consumer awareness
	Responsive to the dynamics of the market (industry specific problems, practices and consumer needs)	Industry-wide coverage
	Ownership and higher level of accountability from the industry	Compliance Enforcement is critical
	Cost effective	The role of the regulator is active
	Public access to quick and informal complaints handling and redress mechanisms	Effective complaints handling
Mandatory	Certainty	Stiffness – Inflexible over time
	Strong enforcement powers	Less industry ownership
	Industry-wide coverage	Low or limited dialogue between stakeholders

Source: AEMC.

9.4 The evolving energy market

The NECF was created to protect consumers in a market where energy flowed to the consumer and retail offerings were largely homogeneous. This is no longer the case. When the NECF was developed, the distribution of electricity and gas through an interconnected grid was almost exclusively the model used to provide energy to consumers. However, the market is undergoing a transition. Consumers can now import and export energy, and manage their energy in increasingly sophisticated ways.

Two market developments that are testing the boundaries of consumer energy protection are:

1. Digitalisation — Digitalisation provides richer and more regular data, and a broader range of communication opportunities to allow customers to interact with their retailer, their data, and the market. This affords us with grounds to review the specific and prescriptive approaches to customer communication currently in the rules and to consider if alternative approaches would be more suited for consumers. Digitalisation is also leading to new ways for consumers to control, use and store energy.
2. The development of new energy products and services — With new technology and digitalisation there is a need determine if new products and services for the control, use and storage of energy should be covered under the NECF, or are adequately covered under the ACL.

This section describes both to provide context the analysis in chapters 10 and 11.

9.4.1 Digitalisation and the traditional sale of energy

The NECF was originally developed and designed, between 2006 and 2012,³⁸² in the context of regulating traditional retail services and the NEM being opened up to full retail competition. At the time:

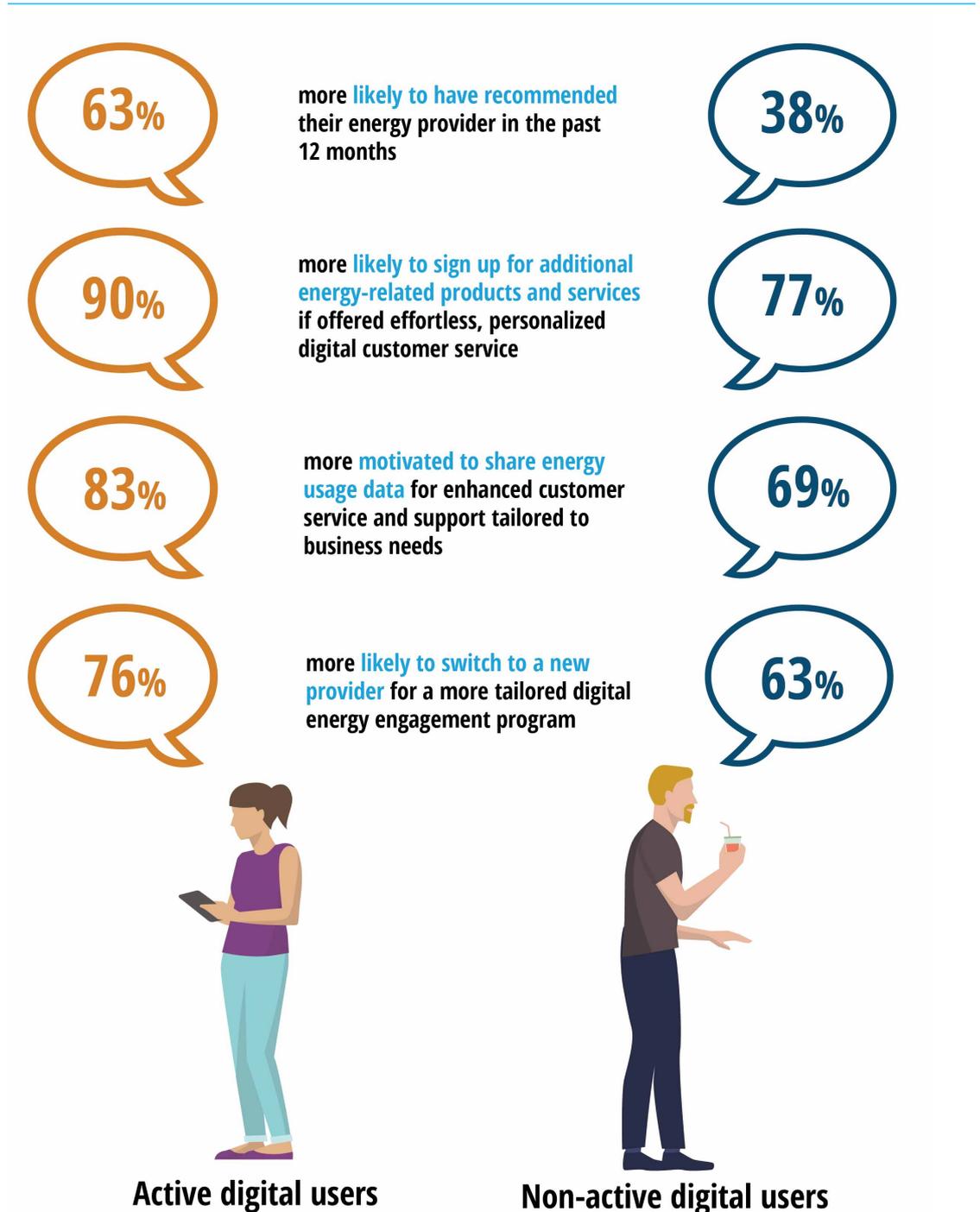
- the metering stock was largely comprised of accumulation meters
- there was a small number of retailers and energy offers
- the majority of customer data was available through quarterly paper bills or email.

However, since the introduction of the NECF, these factors have changed significantly. Advanced 'smart' meters are being rolled out across the NEM along with other energy management devices. The introduction of digital technologies allows consumers, retailers and potentially other third parties to interact with each other and the market in ways that were not previously available. These technologies also enable more opportunities for retailers to tailor energy offers to consumer needs and for other market players to support consumers to better manage their consumption, production and storage of energy.

Digitalisation has transformed the consumer experience and how consumers behave. Consumers that are digitally engaged are more likely to trust their energy provider and are more likely to engage in managing their energy consumption (see Figure 9.4). The number of consumers digitally engaged is growing and the energy market will increasingly move to digital means.

382 From the first consultation process conducted by the Ministerial Council on Energy (MCE) retail Policy Working Group (RPWG), including the five reports done by Allens Arthur Robinson in 2006/07 proposing the outline of the framework to July 2012 implementation date in Tasmania, the Australian Capital Territory and the Commonwealth.

Figure 9.4: The digitally engaged energy consumer brings more business value for energy providers



Source: Data sourced from Accenture, New energy consumer research program, 2019 consumer survey, p.15.

Technology now allows consumers to access increasingly dynamic retail tariffs. These can vary from time of use tariffs to direct spot price pass through contracts. Tariffs can also more accurately reflect the cost of providing network services, including peak demand charges. These all provide consumers with varying levels of 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.

These changes facilitated by technology have potential regulatory implications, in particular on regulation designed to protect energy consumers. To address these changes, the Commission considered the analysis in section 9.3 to propose potential modifications in the NECF for the traditional sale of energy relating to contents of bills, notification, explicit informed consent and cooling-off periods. This is discussed further in Chapter 10.

9.4.2 Digitalisation and other market developments

When the NECF was developed, the distribution of electricity and gas through an interconnected grid was almost exclusively the model used to provide energy to consumers. However, the market is undergoing a transition. With new technologies (smart meters, solar panels, batteries) and the 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 and what to do with the energy they produce and store.³⁸³

New, non-traditional energy products and services

The NEM continues to evolve as new technology enters the market. New generation in the NEM is increasingly 'behind-the-meter' (BTM). In particular rooftop solar PV, is now installed on around 20 per cent of houses in Australia. One of the early signs of the uptake of DER was the fast growth in small scale solar installations. 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 2019.³⁸⁴

Progressively, these systems are being installed with battery storage. While battery costs have fallen significantly, they are not yet cost effective for most small customers on flat tariffs. However, there are a number of state-level schemes supporting the uptake of batteries to make them more economic for small customers.³⁸⁵

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. As a result,

383 Please see Appendix B for further details on how consumers could have saving on their energy bill and maximise the use of DER.

384 AEMO, *2019 Electricity Statement of Opportunities*.

385 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.

the proliferation of 'smart devices', coupled with improvements in communications technologies, means that the capability to respond automatically to price signals should increase.

The new energy consumer

The traditional role of the energy consumer in the NEM is changing. Competition is emerging among retailers to provide more targeted retail offers to accommodate to consumer preferences.³⁸⁶

Beyond being able to access new tariffs discussed in section 9.4.1, consumers can access other services where they are able to manage costs and participate in demand response programs with retailers, distributors and third parties. 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. With this, small consumers benefit financially but may also be exposed to greater levels of price volatility and financial risk.

Small consumers can participate in demand response through retailers, aggregators and distributors. They 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.

For example, aggregated batteries are allowing small customers to participate in providing frequency control ancillary services (FCAS) and reliability and emergency control trader (RERT) programs. Reposit and ActewAGL have partnered to provide FCAS by activating household batteries to respond to power system frequency disturbances. On the reliability side, Powershop has a demand response program in place with 8,000 customers to provide nearly 4MW of emergency reserve through reducing consumption. The result shows residential energy users can play an active role in responding to grid emergencies. These programs allow customers to reduce their energy bills and access new revenue streams. Please see Section 11.3. for further details.

New market participants

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 BTM battery storage and EVs become more prominent, there may also be different providers competing to provide aggregator services for energy³⁸⁷, system services and network support.

³⁸⁶ Please see Chapter 4 for further details.

³⁸⁷ 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.

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 and new market participants to enter the market. 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.

Examples of new business models and innovations in services where there is a two-way relationship include:

- battery service providers (BSPs)
- VPPs
- peer-to-peer energy trading
- aggregator services to participate in frequency control ancillary services and/or reliability and emergency reserve trader
- solar purchase agreements
- white-label retailing.

Please see Section 11.3 for further details.

Given that the retail market evolution provides value to consumers with new energy services and products, there is an opportunity for the current framework to adapt and promote innovation while also continuing to protect the interest of customers. Chapter 11 will look at two key issues identified by the Commission that warrant further review:

1. the scope of application of the NECF
2. whether additional consumer protections over and above the ACL are needed for new energy products and services not covered under the NECF.

10

CONSUMER PROTECTIONS IN AN EVOLVING MARKET: THE TRADITIONAL SALE OF ENERGY

BOX 21: SUMMARY OF KEY FINDINGS

- The Commission considers there is a need to future-proof the NECF to develop consumer protections that are fit-for-purpose for the emerging, more diverse retail energy market which is characterised by digitalisation.
- For the traditional sale of energy, digitalisation brings new ways for consumers to interact with their retailer, data and even the market. While not all consumers will want to interact with the market in these new ways, the Commission considers that the NECF needs to be flexible enough to provide consumers with choice in how they engage.
- This is particularly relevant for billing and notifications where new applications allow some consumers with instant access to data and billing information, and the usual means of getting this information, via a bill in the mail or by email are not necessarily needed. Other customers however, may still prefer paper bills as the best way to access their information. And this where the need for flexibility and choice are important.
- As outlined in chapter 9, regulation can be developed in a number of ways through prescriptive or principles-based approaches and, mandatory or voluntary approaches. Each has its own benefits and challenges.
- The Commission considers that the growing diversity in the market is likely to require more diversity in the regulatory approaches that are used, to strike the right balance between facilitating innovation and consumer protection.
- The Commission does not consider that the current bill content requirements reflect the digitalisation of the market and the technological developments available to consumers. In April 2020, the Minister for Energy, Hon Angus Taylor, submitted on behalf of the Australian Government the *Bill contents and billing requirements* rule change request. Through this, the Commission will address how bill content requirements under the NECF can better reflect consumers needs, including increasingly diverse communication preferences and availability of real-time consumption data.
- Similarly, requirements under the NECF to provide customers with certain notices by mail may not reflect changes in the way consumers want to access information. The Commission believes the notification requirements should be reviewed. However, while flexibility enabled via a more principles-based approach may be appropriate in relation to a range of issues, there would still need to be prescriptive provisions for other items such as disconnection notices.
- The Consumer Data Right (CDR) is another avenue to consider how consumers can benefit from greater access to data. The Commission will continue to engage with the Treasury, ACCC and Data61 to develop the CDR in the energy market.

RECOMMENDATION 7: NOTIFICATIONS OF CONTRACT CHANGES

The Commission recommends that a rule change request is developed to change the current NECF notification provisions relating to contract changes to move towards a more principle-based regulatory approach. Detail on what the Commission considers should be included in any such rule change request is provided in section X.

RECOMMENDATION 8: EXPLICIT INFORMED CONSENT

The Commission recommends the CDR in the energy market introduces authorised third party access to switch consumers on their behalf (known as 'write' access in the CDR). The Commission will continue to engage with the Treasury, ACCC and Data61 to develop the CDR in the energy market.

Should the necessary changes not be made to implement 'write' access in the energy sector under the CDR, the Commission will seek to work with stakeholders towards a proposal to change explicit informed consent (EIC) requirements under the NERL and Rules to allow authorised third parties to switch consumers on their behalf. The Commission also considers it important the Australian Government progresses a previous recommendation from the Commission and the ACCC regarding the regulation of third-party comparator sites.

RECOMMENDATION 9: GREATER INDUSTRY ENGAGEMENT IN DEVELOPING CONSUMER PROTECTIONS THROUGH CO-REGULATORY APPROACHES

The Commission recommends that industry should play a greater role in developing energy consumer protections. In the first instance, this could include trials and testing of industry led initiatives supported by the AER. These trials should inform the process for developing protections, the outcomes for consumers, and monitoring and compliance costs. The design results should therefore inform the design of a framework for regulatory and co-regulatory approaches in the energy sector.

10.1 Introduction

Changes in technology, enabled by digitalisation, are changing energy markets. Digitalisation can facilitate greater and different forms of consumer engagement and participation in the energy market. This raises questions about the appropriateness and form of existing energy specific consumer protections and whether they empower consumers to make the most out of the innovation and digitalisation of the market.

As the NEM continues to evolve as a result of new technologies, the Commission is prioritising five key areas of policy reform so that customers can access safe, secure and

reliable energy at the lowest possible costs. One of our 5 priorities is the *digitalisation of energy supply* (further information on our areas of priority can be found [here](#)).

The digitalisation of energy supply is:

a power system and market that efficiently utilises digital technologies to make it easier to choose and control how, when and where power is generated, delivered and used, including to empower customers to optimise their energy use within their homes and businesses.

As mentioned in Section 9.4, the market has evolved in two different ways relevant to the analysis on consumer protection. This chapter focuses on how digitalisation and the market's evolution could lead to changes to the consumer protections under the NECF for the traditional sale of energy in order to deliver better outcomes for consumers and promote innovation. Chapter 9 provides the context for this chapter, and both should be read together.

The Commission considers there is room for improvements under the NECF to continue to protect consumers, maximise the use of technological advancements and promote innovation in the energy market. This chapter focuses on the traditional sale of energy³⁸⁸ and covers potential changes to the NECF:

- information provisions: bill content requirements
- information provisions: mandatory notifications to consumers
- explicit informed consent (EIC)
- cooling-off period.

10.2 Contents of bills

As noted in chapter 9, under the NERR, there are 24 requirements for the content of a retail bill.³⁸⁹ The requirements include identifying information, the parameters of the bill and basis for charging, as well as specific details of the customer's energy habits. Bills are required to be in a written form that includes all the 24 requirements set out in the rules.

The current NECF bill content requirements can be characterised as seeking to achieve two objectives:

- Facilitate payment: by providing customers with the information they need to know about the cost of their consumption within the billing period by showing their:
 - consumption information
 - related fees and service costs
 - the rate of energy
 - options to pay for their consumption.³⁹⁰

³⁸⁸ The traditional sale of energy means, for the purposes of this review, the sale of energy to customers whose premises are connected, or to be connected, to the interconnected power system.

³⁸⁹ NERR, rule 25.

³⁹⁰ NERR, rules 25 (a)-(j), (m), (n), (p)-(x).

- Inform consumers of usage patterns: provide information on consumers' usage patterns and behaviours of consumption, presenting their usage compared to the same period in the year before or average local consumption.³⁹¹

The requirements under the rules are prescriptive in nature, outlining specific elements that a bill requires rather than specifying what the rule seeks with each requirement. For example, instead of stating the bill needs to identify the customer, there are 5 separate specific requirements to identify the customer. Further, the rules are not sufficiently flexible to allow for changes in technology. Of particular note is how the rules do not allow for bills to be delivered to consumers by their preferred means of communication. Prescription in billing has remained despite market changes that have led to a less homogeneous group of consumers and retailers. The Commission considers that the bill contents provisions would benefit consumers more through adopting more principles-based regulation so that billing methods could respond to more diverse consumer preferences as they emerge.

10.2.1

Key issues and analysis

Contracts are not same across the retail industry

In the energy market, retailers are introducing increasingly diverse market contracts with new tariff designs and payment schemes. Offers can depend on consumers' interaction preferences. For example, new digital only retailers that reward consumers for only engaging online or through pre-paid energy contracts. Here consumers pay in advance for a set amount of energy, paying additional fees should they exceed the pre-paid usage. These new pre-paid plans mimic the telecommunications model of monthly payments for a specific amount of usage, with additional charges if they use more energy than what is paid for.

Whether a consumer has a smart meter or accumulation meter will also affect the types of offers available to them. Depending on the type of meter a consumer has they may have further tariffs available to them such as time-of-use tariffs or demand tariffs.³⁹² Furthermore, there are new types of plans that can have additional features available to customers with smart meters, such as "roll-over credits", which are hard to reflect in the current NECF bill content rules.³⁹³

Consumer expectations on how they want to engage with their energy retailer change over time. A number of consumers are very engaged and have adopted new applications and tools offered by retailers. The Australian Energy Council noted in their submission to this review that market contract customers often prefer digital engagement options. Currently, 81.5% of residential customers are on market offers across the NEM³⁹⁴ and there is a growing proportion of customers digitally engaged. However, they also noted that many consumers on standard retail contracts do not have the same level of engagement.³⁹⁵ The Commission

391 NERR, rules 25 (k), (l), (o).

392 Demand tariffs are an emerging tariff type increasingly offered to small customers, that has an energy charge, as well as a per-kW 'demand' charge, which is based on a consumer's peak demand (in kilowatts). An extensive list of these tariffs is available in the 2019 Retail Energy Competition Review, Table 4.2, July 2019.

393 A 'roll-over credit' refers to "unused energy" allocation being allocated to the next billing period. This reflects the idea of unused credit in mobile phone plans.

394 AER Performance Reporting Q2 2019-20, ESC VEMR 2018-19.

notes that not all consumers, even those on market offers, have the same level of engagement in the energy sector, particularly as retail contracts become more tailored and innovative.

Over time, market contracts will continue to develop to utilise new technology and meet consumer expectations. Standard contracts are likely to remain the default contract for consumers who are unable to, or do not engage in the market. The Commission is not seeking to make amendments to how the NECF is applied to standard contracts. The Commission notes that many consumers on standard contracts (default offer) are either unable to or do not to engage in the competitive energy market, and this requires specific protection measures. Therefore, the Commission will consider these differences between consumers on market and standard retail contracts.

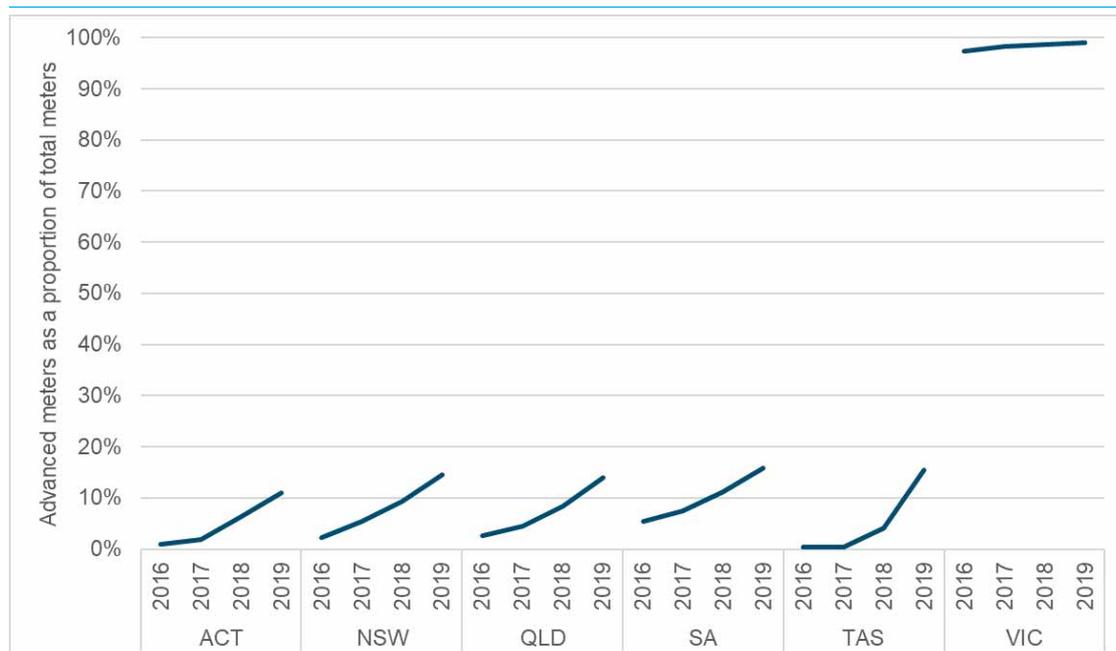
Increasing the availability of data for consumers

The usage data currently required in the bill is a historical snapshot of a consumer's usage for that billing period. The bill is how most consumers receive this usage data on a regular basis. However, because the bill must be in writing, many people are unable to access their usage data from previous periods with ease in order to observe patterns of usage. In analysing any potential changes to bill content requirements, the Commission will explore ways of making data more readily available to consumers by their preferred means.

The majority of consumers in the NEM (outside of Victoria) remain on accumulated meters which limits the type of data available to them to total energy usage. However, advanced interval meters have increased over time (see Figure 10.1). As meters are upgraded throughout the NEM more granular and regular data will be available. Data will be increasingly available to consumers in near real-time rather than quarterly as is the case now. Consumers could use this data to help them adapt their behaviour, prior to the arrival of their bill and help them save on their energy bill and reduce the risk of bill shock.

395 Australian Energy Council, Consumer Protections in an Evolving Market: Traditional Sale of Energy (Issues Paper 2), p. 3, February 2020.

Figure 10.1: Advanced metering adoption across the NEM



Source: AEMO and MSATS. The data included in this chart is the counting of the number of meters by National Meter Identifier (NMI) in December for small customers (small business and residential customers).

Note: In 2009 Victoria introduced the Advanced Meter Infrastructure Program that mandated distributors to roll out smart meters to all small business and residential customers by the end of December 2013.

In its submission, the Queensland Council of Social Services (QCOSS) noted that “[f]or most people, electricity bills are the only source of information regarding their usage and forms the foundation of their relationship with their retailer.”³⁹⁶ This sentiment was supported by other consumer groups who believe that bills could be supplemented with additional information, however that no requirements should be altered. It was noted that a change, such as that recommended by the Commission, could be seen as placing further responsibility on the consumer to seek out information.³⁹⁷

The Commission considers that consumers will benefit from being able to choose when and how they access their data enabling them to actively manage their usage and seek out the best deal for them. Any change will not prohibit the information from being presented on the bill if a customer wants it and will consider the differences between standard and market contracts.

Consumer preferences

As more and more people adopt digital communications as a preferred method of communication, their expectations on how they communicate with their energy retailer are

³⁹⁶ QCOSS, *Consumer Protections in an Evolving Market: New Energy Products and Services — 2020 Retail Energy Competition Review*, p. 5, February 2020.

³⁹⁷ QCOSS, *Consumer Protections in an Evolving Energy Market*, p. 5, February 2020.

also likely to change. Many retailers have adapted to this by introducing SMS alerts or emailing snapshots of a consumers bill, while sending a bill that complies with the NECF. However, consumers should be able to personalise their bill, particularly how it is delivered, to ensure it meets their needs. Groups that represented small businesses such as the NSW Business Chamber were supportive of changes to the billing provisions that would allow consumers to "[...]control their information preferences[...]."³⁹⁸

Retailers broadly agreed that consumers were communicating with their retailers in different ways than the NECF had intended and expected greater flexibility in how they received information from their retailer. They argued that the current content of bills and the prescribed inclusions was not necessarily in the consumer's interest and should be simplified. Some argued that the information currently on the bill can make it more difficult for them to understand, with Momentum stating that "overloading information can make customers feel more intimidated than informed."³⁹⁹

Telecommunications Billing Requirements

While the Commission notes that the energy market as its own unique challenges, it is useful to compare other industries billing practices.⁴⁰⁰ The Commission investigated a number of different industries including, health insurance, travel insurance, banking and water and found there to be no consistent national requirements for billing. The Commission found telecommunications to be the only industry that has a national standard. The table below illustrates similarities in the regulation of the industries while noting that they remain distinct. It is not intended to be a like for like comparison on bill types currently available in either industry.

Table 10.1: Bill Content Requirements

REQUIREMENTS (CATEGORISED)	NECF	TELECOMMUNICA-TIONS CODE
Identifying information of consumer, retailer, and plan	X	X
Tariff breakdown — item sold, quantity and price.	X	X
Historical usage data — i.e. benchmarking to the consumer's usage last year	X	
Hardship information — reference to availability of government funded rebate, concessions or relief schemes	X	

³⁹⁸ NSW Business Chamber, Consumer protections in an evolving market, p. 6, February 2020.

³⁹⁹ Momentum Energy, Consumer Protections in an Evolving Market: Traditional Sale of Energy -2020 Retail Energy Competition Review, p 2, February 2020.

⁴⁰⁰ The Commission considered a number of industries for comparison, however telecommunications was the most comparable as it is one of the few other competitive services with an enforceable billing code.

REQUIREMENTS (CATEGORISED)	NECF	TELECOMMUNICA-TIONS CODE
Emergency information — contact details for fault enquiries and emergencies	X	X
Payment instructions	X	X
Billing period	X	X

Source: C628:2019 TELECOMMUNICATIONS CONSUMER PROTECTIONS (TCP) CODE

The comparison with telecommunications codes shows that there are some elements of bill contents that are regulated across industry. The Commission considers that an element of prescription may be required particularly for standing offer customers, however notes that the number of individual requirements outlined in the NECF that could be combined to make the intended outcome more clear and adaptable to technological advances and changes. In particular, telecommunications does not require usage data to be on the bill, however for many consumers this information is accessible elsewhere.

BOX 22: BILL CONTENTS AND BILLING REQUIREMENTS RULE CHANGE

The Commission does not consider that the current bill content requirements reflect the digitalisation of the market and the technological developments available to consumers. Rule 25 of the NERR could be improved to provide consumers with the relevant information in a more digital market, while protecting those consumers who are unable or unwilling to engage. The Commission does not recommend that the consumer protections be watered down or removed from the NECF, but does see an opportunity to allow for greater flexibility of bill content requirements. This would make the rule more resilient to continued technological advancements and product development in the energy retail market, and more responsive to consumer preferences.

The Commission also considers that in the short-term industry could develop guidance on the terminology used in bills and start exploring ways to help consumers understand their bills. Industry participants have sound knowledge about the market and their consumers and are therefore well-placed to improve the consumer experience. There are industry initiatives that are already developing a set of principles to create tangible improvements in delivering energy services (e.g. The Energy Charter). Bill content requirements appears to be an area where industry initiatives have the potential to complement mandatory regulation to improve the consumer experience.

In April 2020, the Minister for Energy, Hon Angus Taylor, submitted on behalf of the Australian Government the *Bill contents and billing requirements* rule change request. Through the rule change process, the Commission will address how bill content requirements under the NECF can better reflect consumers needs, including increasingly diverse communication preferences and availability of real-time consumption data. As part of this rule change process, the Commission could consider how bill content requirements for market contracts may be more

principle-based to be more adaptable to changes in the market, how consumer information may be more easily accessed by consumers, and how consumer access to both their bill and data may be more flexible. This analysis will consider whether:

- bill content requirements for market contracts could be paired back to a principle based rule, underpinned by optional prescription in corresponding AER guidelines
- consumer usage information could be separated from bill contents to provide consumers with more frequent and greater access to their usage information through their preferred means e.g. phone application, online account, post.

10.2.2 **Bill contents and billing requirements rule change**

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⁴⁰¹ available at <https://www.aemc.gov.au/rule-changes/bill-contents-and-billing-requirements>.

- consumer usage information could be separated from bill contents to provide consumers with more frequent and greater access to their usage information through their preferred means e.g. phone application, online account, post.

10.3 Notifications

In recent years the NECF has been amended to include a number of notifications to alert customers when changes are made by their retailer that could impact the cost of their energy. The number of notification requirements in the rules have increased following the Independent Review into the Future Security of the NEM (the Finkel Review) and ACCC's Review of Electricity Pricing Inquiry (REPI). Both noted some customers were unaware of changes made to the conditions of their energy contract.

The Commission received three separate rule changes from COAG Energy Council and the Australian Government following the outcomes of the Finkel Review and REPI related to notification provisions. The Commission also has a pending rule change request from the Commonwealth Energy Minister proposing to require retailers to write to consumers on standing offers every twelve months to notify them they are on a standing offer. Under these new notification requirements, retailers must inform consumers in writing when there is a variation to their tariffs and charges,⁴⁰² when the contract is due to end,⁴⁰³ or when there is a change to their benefits.⁴⁰⁴

The Commission has considered notifications in line with the regulatory guidelines established in Section 9.3., and has explored how the adoption of a regulatory objective, rather than prescriptive regulation may lead to more clear compliance expectations and better outcomes for consumers. For this review, the Commission is only focussing on notifications that relate to changes to the terms of a consumers contract and will not review other notifications (for example disconnection notices).

10.3.1 Key issues and analysis

The intent of the increase in notification provisions was to protect consumers by keeping them informed of changes to their contract. However, some stakeholders argued they introduced new complexities to the market both for retailers and consumers.⁴⁰⁵ For instance, the notice periods for each notification provision are not consistent with notification of fixed period or benefit changes being 40 to 20 business days and variations to tariffs and charges having no specified period. Further, there is inconsistency in how the notifications can be communicated, with some allowing for digital notification and others still being required in writing. A number of consumer groups also noted that the current notification scheme could be confusing to consumers and that there was scope to simplify the language of the notifications and introduce more consistency.⁴⁰⁶

⁴⁰² NERR, Rule 46, amended with effect in 2019.

⁴⁰³ NERR Rule 48.

⁴⁰⁴ NERR, Rule 48A, introduced in 2017.

⁴⁰⁵ AGL, Australian Energy Market Commission — Consumer Protections in an evolving market — Issues Papers, p.19, February 2020.

⁴⁰⁶ EWON, Consumer protections in an evolving market, p. 12, February 2020.

10.3.2 Simplifying notifications for consumers

Both consumer groups and retailers have highlighted that the current notification provisions can overwhelm consumers. The lack of consistency in the NECF on how these notifications are communicated as well as the language that is used can mean that a customer gets multiple notifications through different means of communication and with varying times.

While some submissions called for changes to align benefit periods with contract periods, the Commission does not think that aligning the benefits period with contracts periods will solve the current issues with notifications relating to contract changes.⁴⁰⁷

The Commission considers that there is merit in replacing the separate requirements for notifications for changes to contracts to simplify and align all notifications under one principle-based rule. This is explored further below.

10.3.3 Future proofing notifications in an evolving energy market

The NECF notifications relating to changes in contracts could be made more robust by adopting a principles-based approach. This could provide for more consistent application across all contract related notifications, create clear deliverables for retailers, and prevent the loopholes or gaps that have arisen through the current prescriptive provisions. As noted earlier, the Regulatory Economic's report identifies principles-based legislation as being flexible enough to cover the entire market, limiting the scope for gaps in protection.⁴⁰⁸

Already, the current provisions are being tested in a wide variety of circumstances. For example, the Commission is interested to understand how retailers are applying notification requirements where consumers have contracts with:

- spot price pass through tariffs
- prices related to the wide range of product add-ons
- tariffs for demand response
- VPP dispatch credits.

With an increasingly dynamic market, a principle-based provision will be flexible enough to cover notifications associated with market developments and innovation which will continue to evolve energy retail contracts.

As outlined earlier, the Regulatory Economic's report notes there are risks to adopting principle-based regulation, specifically "the potential for imprecision and vagueness which can lead to multiple interpretations, and which can create coverage gaps and leave suppliers uncertain as to how to comply with a required regulatory outcome."⁴⁰⁹ However, the Commission considers that any rule change to notifications would have a clear policy objective and allow for an optional AER Guideline or self- or co-regulation below the rule should there be a requirement to provide further guides on how to interpret the principle.

⁴⁰⁷ Consumer Action Law Centre (CALC), submission Issues Paper 2, p. 4.

⁴⁰⁸ Regulatory Economics, *Consumer protection frameworks for new energy products and services and the traditional sale of energy in Australia*, final report for the Australian Energy Market Commission, 2020, p.46.

⁴⁰⁹ Ibid.

10.3.4 Consumer focussed notifications

Notifications are designed to keep consumers informed, and as increasing sections of the market become more engaged through phone applications, email or SMS, the NECF should more clearly allow for consumer preferred communication. This includes using those means of communication to deliver key notifications on a customer's energy contract.

The AER has highlighted there is some inconsistency in how the current notifications are able to be communicated. Most notifications require communication in writing while some newer notification provisions allowing customers to receive their notice by their preferred form of communication, including SMS.⁴¹⁰ The Commission considers that all notification provisions should allow consumers to receive their notifications through their preferred form of communication and that no consumer is disadvantaged by their preference.

In an attempt to make the NECF resilient to new contract types, notification provisions for changes to contract have been increased over time. While this has protected consumers in particular ways, it has also introduced inconsistency and complication into notifications being received by consumers.

The Commission recommends a rule-change request be submitted to replace the numerous notification provisions relating to consumer contracts to a single principle based rule. This would simplify the notification provisions and make notifications more robust to the increasingly diverse contracts available. A principle-based rule could allow for greater consistency across notifications to consumers about changes in the contract and should allow for prescription to be available through an AER guideline. Any rule-change should also consider allowing for flexibility of consumer communication preferences.

The rule change request should consider:

- that information presented in notifications is simple, clear, and easy to understand
- notifications are delivered to consumers by their preferred means of communication that could include but is not limited to SMS, email, or post
- being technology neutral and not disadvantage consumers who are unable to receive notifications electronically
- an allowance for the AER to develop a guideline to complement the rule if, following a period to allow the market to adjust to a principles-based approach, that approach is not sufficient.

10.4 Explicit informed consent

EIC is a key consumer protection designed to protect customers and make sure that any new contracts are in their name or changes to their contract are only made when they specifically agree to it. The protection was designed so that customers understood their contracts and that consent could only be provided directly by the customer.

⁴¹⁰ Australian Energy Regulator (AER), submission issues paper 1, p. 11.

In addition to the Commission's review of EIC, the Consumer Data Right is also scheduled to be implemented in the energy sector to give consumers greater access to and control over their data to improve their ability to compare and switch between products and services.⁴¹¹ EIC and the CDR are directly linked through the requirement in the NECF for EIC to be given by a consumer to a retailer to switch retailer or retail product. Therefore, the Commission considers that any changes to EIC should be considered together with the CDR design for the energy sector and not pre-emptively.

10.4.1 Key issues and analysis

The combination of more granular data provided by advanced metering and increases in retail competition has led to more diverse and complex energy offers being available to consumers. While the increase in the range of offers provides consumers with a greater set of options to meet their needs, it also increases complexity and it can be difficult for consumers to navigate the market on their own. The Regulatory Economic's report highlighted that some consumers "do not fully appreciate or comprehend the potential risks associated with the new contractual arrangements they are signing up to."⁴¹²

Many retailers submitted that EIC is currently applied to a number of actions that could make processes onerous to consumers. They argued that EIC creates an unnecessary barrier for consumers to make small changes to their contracts such as preferred payment procedures.⁴¹³ This sentiment was not echoed by consumer groups. Instead, much of the focus was on whether EIC could be transferred to a third party provider that acts on behalf of the consumer, such as a third party comparison site. The Commission has chosen to examine EIC in relation to consumer switching as this is a key issue being explored through the CDR and will have the largest impact on EIC in the energy sector.

10.4.2 Important of authorised third party access

Unlike the banking sector, in the energy sector, customers already have access to their data (referred to as 'read' access in the CDR) and can provide it to third parties. Although the availability and access to this data could be improved, see section 10.2.1, consumers are in a position where they can utilise the data to compare energy contracts. Should CDR expand it will allow accredited third parties to have access to consumers' data and to apply for, manage and change products on behalf of the customer with their consent (referred to as 'write' access in the CDR). Customers could rely on the organisations' knowledge of the electricity retail market and engage with the market through them. This could allow some consumers currently on standard contracts to access market contracts that could see them save on their energy bills.

The Commission considers that the introduction of authorised third party access within CDR would have substantial benefits within the retail energy market. Limiting the CDR to allow third parties to access customer data for the energy sector is unlikely to see the full benefits

411 See: <https://www.accc.gov.au/focus-areas/consumer-data-right-cdr/energy-cdr>

412 Regulatory Economics, *Consumer protection frameworks for new energy products and services and the traditional sale of energy in Australia*, final report for the Australian Energy Market Commission, 2020, p. 29.

413 Submissions to issues paper 2: Meridian Energy Australia, p. 2; AGL, p. 13.

of the CDR materialise for consumers. However, given the current practices of commercial energy comparison sites, there is a need for checks and balances so that authorised third party access is only given to parties that act on behalf of and in the best interest of consumers. There are a number of mechanisms that could be used to give effect to this and the Commission will work with the Treasury and ACCC towards developing an effective solution for how this could be achieved. This should be additional to the current suite of data security requirements that allow accreditation for 'read' access.

10.4.3 **Comparator sites in the retail energy market**

The Commission is concerned that, currently, most private energy comparison sites work on commissions delivered through pre-existing arrangements with energy retailers. Each commercial comparator site has an affiliation with a limited number of providers (some more than others). These concerns were raised by retailers in the Commission's 2018 review of retail energy competition, who noted that commercial comparator websites were sales-motivated and not clear in disclosing the range of retailers they represent, nor the commission arrangements that apply to them.⁴¹⁴ As a result of the commission model, the retail contracts recommended through these sites may be based on which retailer pays the highest commission and may not always be in the best interest of consumers. The Commission and the ACCC have recommended the introduction of some form of regulation of commission-based comparator sites to increase transparency regarding the function that these sites provide customers.⁴¹⁵ The Commission considers this to be separate to any regulation that guides authorised third parties that act on behalf of consumers and considers that the AEMC's previous recommendations should be progressed alongside any changes to EIC that arise from the CDR.

In contrast to the commission-based models, government comparator sites exist that work to assist consumers in finding better deals for themselves. These programs are unable to switch customers directly to new contracts and include the Australian Energy Regulator's site *Energy Made Easy*, as well as state government sites, such as *NSW Energy Switch*. These sites do not have the authority to switch consumers on their behalf with the retailer, even where the consumer is willing, due to the current EIC requirements. Several trials for comparator sites that act on behalf of customers have been commissioned over the last few years, including *NSW Energy Switch* and *CHOICE's Transformer*. However, these projects have been unable to switch customers due to complications arising from the strict application of EIC. The Brotherhood of St Laurence outlined a number of issues they faced during their trial of *Your Energy Broker*:

- the inability of third parties to provide EIC for customers, including the need to convey the terms and conditions of the new offer to the household before they could consent to them, and retailers not allowing transfers by third parties to occur via their public phone or internet channels

⁴¹⁴ AEMC, Retail Energy Competition Review 2017, July 2017, p.84.

⁴¹⁵ AEMC, 2019 Energy Retail Competition Review, p. 96, June 2019.

- difficulty automating systems that require retailers to contact consumers directly to provide EIC
- anecdotal evidence indicating that where customers did call to switch to plans suggested by these agencies, retailers would often try to up sell them to more expensive products.⁴¹⁶

10.4.4 Consumer protections needed

There is potentially significant benefit for EIC to be granted by authorised third parties who act on behalf of consumers seeking more competitive contracts to suit their energy needs. Expanding authorised third party access in the CDR:

- creates an opportunity for more consumers to engage with the retail market through accredited third party switching providers
- introduce greater competition in the market and reduce bills for customers who are currently on standing offers due to a lack of engagement.

The Commission recommends that CDR be expanded to include 'write' access to authorised third parties that act on behalf of the consumer. The Commission has made a submission to the Inquiry into Future Directions for the Consumer Data Right: Issues Paper to this effect which is available on our [website](#).

If the CDR does not expand to allow authorised third party access, the Commission still considers it would be a positive development within the energy sector and would seek alternative mechanisms to implement authorisation for certain third parties to act on behalf of consumers. One mechanism the Commission would explore would be to work with stakeholders towards a proposal to change EIC requirements under the NERL to allow authorised third parties to switch consumers on their behalf. The Commission would also explore the development of a specific energy related framework to regulate comparator sites and provide some with an EIC by proxy similar to 'write' access to increase transparency regarding the services that these sites provide to customers, in line with our previous recommendations. The Commission notes that these mechanisms may not be as effective as the inclusion of 'write' access in the CDR.

10.5 Cooling-off period

Under the NECF, a small customer who enters into a market retail contract with a retailer has the right to withdraw from the contract within a period of 10 business days.⁴¹⁷ This right is extended to all electricity and/or gas market retail contracts, regardless of whether the agreement is unsolicited or solicited.⁴¹⁸ The cooling-off period commences from the date the small customer receives the required information about the new market retail contract.⁴¹⁹ This right can be exercised by the customer by informing the retailer orally or in writing.

⁴¹⁶ Brotherhood of St Laurence, submission issues paper 2, p. 2.

⁴¹⁷ NERL, rule 47

⁴¹⁸ In this regard, the NECF goes beyond the ACL cooling-off period which is limited to unsolicited agreements.

⁴¹⁹ NERL rule 64.

Retailers must include explicit provisions in the customer’s market retail contract setting out consumers’ rights, their obligations under the cooling-off period and create a record of each withdrawal, similar to the prescribed record for EIC. This right only applies to market retail contracts and does not apply to standard retail contracts. One of the original objectives for the cooling-off period for solicited sales was likely to protect consumers from high exit fees, and allowing for copies of pricing and contract information to be received by the consumer prior to commencement.

Currently, under Rule 57(2) a consumer transfer is permitted prior to the completion of the cooling-off period, but the transfer can be reversed if the customer elects to withdraw from the contract under rule 47. AEMO are currently updating their processes to allow for customer reversals to occur in line with this rule.⁴²⁰

10.5.1 Key issues and analysis

The Commission notes that there is confusion over how cooling-off periods are currently applied within the energy retail market. Despite this, there is some agreement amongst stakeholders in their submissions, that cooling-off periods are not protecting consumers as they were originally designed to (although the reasoning from retailers and consumer groups was markedly different).⁴²¹

Current Cooling-off period for solicited transfers

Currently, the cooling-off period applies in a manner that can delay customer switching. For instance, the requirement that a physical meter read be carried out means that retailers often do not organise a meter read until the consumer’s cooling-off period has expired. Below, depicts the cooling-off period as it is currently being applied in the market.

Figure 10.2: Current Cooling-off period for solicited transfers



Note: The highlighted boxes show the period during which consumers remain on their current plan prior to switching.

AEMO is responsible for the establishment and maintenance of metering procedures specified in Chapter 7 of the National Electricity Rules (NER) except for procedures established and maintained under rule 7.17. AEMO’s current switching process is based on a formal meter read from the old retailer, which can take as long as 90-days. Most retailers only read the meter after the cooling-off period is finalised. Consumers have not experienced any of the conditions of the new contract prior to the cooling-off period expiring and the initial meter read. Therefore, in practice they can only leave an unsatisfactory contract by initiating another switch and not by exercising their right under the cooling-off period.

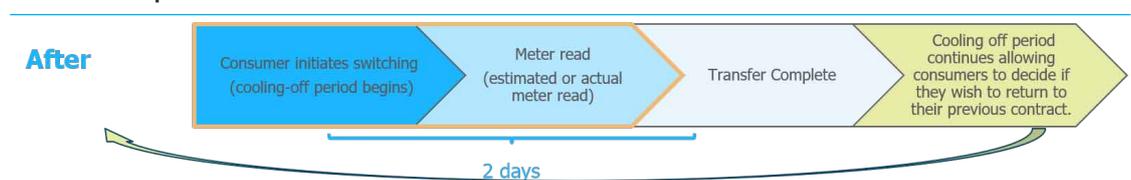
⁴²⁰ Customer switching implementation is now likely to be delayed as part of the industry prioritisation process on regulatory reform due to COVID-19.

⁴²¹ Submissions to issues paper 2: EnergyAustralia, p. 5; PIAC, p.2.; ERM Power, p.3; Momentum Energy, p. 2; Renew p.11.

AEMO's updated switching process

The switching process is currently being updated through an AEMC-AEMO joint program, which is enabling a two-day transfer period. The changes that the two-day transfer should have on cooling-off periods for solicited transfers is depicted in Figure 10.2.

Figure 10.3: Cooling-off period for solicited transfers under AEMO's updated switching process



Note: The highlighted boxes show the period during which consumers remain on their current plan prior to switching.

Currently, under rule 57(2) a consumer transfer is permitted prior to the completion of the cooling-off period only if the transfer can be reversed if the customer elects to exercise their right to withdraw from the contract under rule 47. However, this has not been easily done through AEMO processes. As part of the change in the switching process, AEMO will facilitate consumers returning to their previous contract. Retailers are not going to need to wait until the end of the cooling-off period to initiate the switching process, therefore customers that change their mind during the cooling-off period can be easily returned to the 'losing'/old retailer.

However, the reversion of customers is new, and may not be adopted by retailers as readily as expected or in the fashion the update predicts. This could mean that retailers continue to wait until the expiration of the cooling-off period before switching the customer leading, in effect, to a 12-day switching period. While the practical details as to how this will work in practice are still to be determined, it has the potential to remove or drastically reduce the lag in switching that is currently caused in part by the cooling-off period for solicited sales.

Consumer engagement and solicited transfers

It can appear that consumers who initiate transfers are more engaged with the market. However, Regulatory Economics noted this was not always the case and consumers can react impulsively in the market without having a full understanding of their actions. Regulatory Economics suggests that allowing consumers to "opt-out, or waive, their right to a cooling-off period" could be an avenue forward for consumers who believe that the cooling-off period is disadvantaging them and would like to expedite the transfer of supplier.⁴²²

Most retailers considered cooling-off periods for solicited transfers to be unnecessary in the modern switching environment. They argued that cooling-off periods should be removed for consumer initiated transfer, with one retailer describing the provision as "excessive and out of

⁴²² Regulatory economics, *Consumer protection frameworks for new energy products and services and the traditional sale of energy in Australia*, final report for the Australian Energy Market Commission, 2020, p. 164.

date."⁴²³ Consumer groups still saw merit in cooling-off periods for solicited transfers, however some, such as Energy and Water Ombudsman NSW (EWON) may support an opt-out clause for solicited transfers, in an environment where there are no exit fees and the switching period is reduced to two days.⁴²⁴ Other consumer groups supported the removal of cooling-off periods in favour of an opt-in cooling-off in which a consumer would contact the retailer after their initial interaction to confirm their agreement to the contract.⁴²⁵ However, the Commission considers this would introduce responsibilities onto consumers rather than facilitate their engagement in the market.

The AEMO-AEMC joint program will improve consumers switching experience reducing time frames of this process, and allowing consumers to change contracts and return to their previous energy contract. The Commission considers that the benefit of the cooling-off period is to allow consumers to make this change without having to pay exit fees and to allow them to go back to their previous terms and conditions. Once the two-day switching process is implemented, it is relevant to examine whether, in an environment where there are no exit fees and consumers can change contracts in two days, a cooling-off period for solicited agreements is still needed.

423 ERM Power, submission to issues paper 2, p. 3, February 2020

424 Energy and Water Ombudsman of NSW, submission to issues paper 2, p. 14.

425 Submissions to issues paper 2, CALC, p. 6; PIAC, p. 10.

11 CONSUMER PROTECTIONS IN AN EVOLVING MARKET: CHALLENGES TO THE TRADITIONAL MODEL

BOX 23: SUMMARY OF KEY FINDINGS

- New, non-traditional energy products and services, are testing the boundaries of the NECF. These new products and services include things like solar PV systems, energy storage systems, energy management services and EV charging services, among others.
- From these new products, comes a range of market developments not previously contemplated by the NECF, including battery service providers or virtual power plants, that do not neatly fit within the traditional retailer-distributor-consumer model.
- Previous market reviews, such as embedded networks and stand-alone power systems, have helped identify whether the NECF should apply and if additional or alternative consumer protections should be in place.
- With the fast pace of innovation and new technologies entering the market, it is important that the scope of the NECF is clear in order to appropriately exclude or include new market developments were necessary.

Risks for consumers of new energy products and services

- Consumers of new, non-traditional energy products and services are protected under the ACL general consumer protections. However, the Commission considers that it is important to determine if additional consumer protections over and above the ACL should be in place.
- A consumer who buys new energy products or services may find it difficult to determine if, at the time of purchase, the new product or service will meet their future energy needs. This is particularly the case if consumers are not well-informed about the effects the new product or service will have on their energy consumption.
- The Commission has identified that while there is some recourse available to consumers under the ACL in relation to new and emerging energy products and services, the main risk for consumers if things go wrong is not having access to an independent, specialised and timely redress mechanism, such as energy Ombudsman schemes.
- This could be addressed by extending the jurisdiction of energy Ombudsman schemes to deal with matters on new energy products and services that are not otherwise covered by the NECF. The New Energy Tech Consumer Code (NETCC) provides a mechanism for this so be explored and implemented (a voluntary industry code).

Consumer protections in a two-sided market

- The Commission started the assessment of the NECF and ACL in the 2019 Retail Competition Review in recognition that the energy market is changing fundamentally and

changes to regulatory frameworks to protect consumers would also be required. Since this review commenced, COAG Energy Council has tasked the ESB with considering the move to a two-sided energy market. The AEMC and AEMO are leading the development of the two-sided market work on behalf of the ESB.

- A two-sided market is one in which the supply and demand sides of the market actively engage in the process of determining the quantity and price of energy available. As such the role of consumers that can increasingly import and export energy is a key part of a two-sided market, and the protections that apply to consumers a key consideration.

RECOMMENDATION 10: DISPUTE RESOLUTION MECHANISM FOR NEW ENERGY PRODUCTS AND SERVICES

The Commission recommends that energy Ombudsman schemes consider extending their jurisdiction to handle consumer complaints regarding new energy products and services that relate to the sale or supply of energy, where they do not already have such jurisdiction.

The Commission considers that the NETCC could be the mechanism for this to be explored and implemented. If this recommendation is adopted, the Commission recommends monitoring of outcomes with the NETCC, to determine if it is providing adequate and effective protections for consumers.

The Commission considers that there is an opportunity to promote and strengthen industry codes such as the NETCC and it will continue to investigate how such codes could be used within the evolving energy market.

Action 2: Future-proofing the application of the NECF

Given the changes in the energy market, the Commission will continue to explore whether the regulatory tests that define the application of the NECF require changes to appropriately exclude or include new energy market products and services.

Action 3: Consumer protection and a two-sided market

The Commission will continue to explore the consumer protections that will be required in a two-sided market design. This will form part of the ESB's 2025 market design program and will be based on the analysis of consumer protection regulations, as outlined in Chapter 9.

11.1

Introduction

In Australia, energy consumers and providers are operating in a new market where technologies increasingly allow consumers to use, control, generate and store energy. The adoption of these innovative technologies is transforming the energy market away from traditional one-way power flows (from retailers to consumers). Now we are seeing two-way power flows where consumers can produce, store and export energy back to the grid. With

it, the energy retail model is changing and new revenue opportunities are emerging on both the supply side and the demand side. These changes raise questions about how new energy products and services should be considered under energy-specific consumer regulation.

The market evolution has transformed the ways in which energy can be sold and supplied to consumers, both by traditional retailers and distributors, and new service providers. The traditional model considered under the NECF is no longer the only model available for consumers to access energy. In this evolving market, consumers can access energy not only through the grid but through self-generation or third-party generation with solar PV, stand-alone power systems or batteries. This changing environment is testing the boundaries of the application of the NECF and the traditional ways of selling and supplying energy considered under this framework. This provides an opportunity to consider whether the NECF remains fit for purpose.

As mentioned in Section 9.4., the market is evolving in two ways, this chapter focuses on how market developments and new, non-traditional energy products and services are testing the boundaries of the NECF and whether consumer protections, over and above the ACL, are needed. Chapter 9 provides the context for this chapter, and both should be read together.

In this section, the Commission will:

1. outline the test that applies for determining whether a person is required to hold a retail authorisation, and therefore, whether the NECF applies to that energy activity
2. provide examples of new products and services where this test could be challenged.

11.2 The application of the NECF

This section outlines how the NECF and supporting arrangements determine the activity it seeks to regulate: the sale and supply of energy to customers. This includes how this:

- is set out in the NERL and exemption framework
- was considered by the AEMC under the stand-alone power systems (SAPS) and embedded networks reviews.

11.2.1 National Energy Retail Law

The NERL regulates the retail sale and supply of energy (gas and electricity) by retailers and distributors, respectively, to customers in participating jurisdictions.⁴²⁶ The objective of the NERL is to promote efficient investment in, and efficient operations and use of, energy services for the long-term interests of consumers of energy with respect to price, quality, safety, reliability and security of supply of energy.⁴²⁷

The NERL specifies that the NECF applies to:⁴²⁸

- the sale and supply of electricity or gas or both to customers

⁴²⁶ The NECF currently applies, with specific modifications in Queensland, New South Wales, South Australia, Tasmania and the Australian Capital Territory. Victoria has adopted the NECF in a limited manner.

⁴²⁷ NERL, section 13.

⁴²⁸ Section 16 NERL.

- a retailer to the extent the retailer sells electricity or gas or both
- a distributor to the extent the distributor supplies electricity or gas or both.

While the NECF applies to the sale and supply of energy (electricity or gas or both) to customers⁴²⁹ it does not provide a definition of the 'sale of energy'. However, there are provisions throughout the NERL that define the scope of the activity covered under the NECF.

For example, section 2 of the NERL defines "energy" as electricity and gas or both⁴³⁰ and defines "customer retail services" as the sale of energy by a retailer to a customer at premises"⁴³¹ Section 88 of the NERL prohibits the sale of energy to a person for premises unless the seller holds a retail authorisation or exemption.⁴³² The AER writes the *Retail Exempt Selling Guideline*⁴³³ and is responsible for exempting parties from the application of the NECF.

Therefore, from the above provisions, there are four key elements that are relevant when considering the scope of the application of the NECF to a person who sells energy. Those are:

1. the sale
2. of energy
3. to a customer
4. at/for premises.

The word 'sale' is not defined in the NERL, and the word 'energy' is defined to mean electricity or gas or both. Section 5 of the NERL defines 'customer' as follows:

- a small customer is a residential or a business customer who consumes energy below the upper consumption threshold
- a large customer is a business customer who consumes above the upper consumption threshold.⁴³⁴

The word 'premises' is not defined in the NERL. However, section 2 of the NERL defines a 'residential customer' as a customer who purchases energy principally for personal, household or domestic use at premises.⁴³⁵

Considering these elements together in the context of the sale of energy, the NECF can broadly be described as applying to the sale of energy to a residential or business customer for consumption at premises.

429 NERL, section 16(1).

430 Definition of 'energy', NERL, section 2.

431 Definition of 'customer retail services', NERL, section 2.

432 NERL, section 88.

433 Available from <https://www.aer.gov.au/retail-markets/retail-guidelines-reviews/retail-exempt-selling-guideline-march-2018>

434 NERL, section 5. Each jurisdiction has a specific consumption threshold that defines a small customer for legislative and regulatory purposes. The maximum annual consumption thresholds are: South Australia - electricity 160MWh, gas 1TJ; Australian Capital Territory - electricity 100MWh, gas 1TJ; New South Wales - electricity 100MWh, gas 1TJ; Victoria - electricity 40MWh, gas 1TJ; Tasmania - electricity 150MWh, gas 10TJ; Queensland - electricity 1000MWh, gas 1TJ.

435 NERL, section 2.

Scope of the sale of energy

The AER has stated that the 'sale of energy' can cover a wide range of activities, from energy retailing through to landlords recovering energy costs from their tenants. It has also noted that energy sales do not necessarily have to be for profit, simply passing on energy costs to another person is considered to be a sale. Nor are energy sales limited by the parties involved. These may include sales to residential homes or other places of residence (for example, a caravan park where residents permanently reside), shopping centres and commercial sites.⁴³⁶

NERL — Exemption framework

Under the NERL, a person who wishes to sell energy to a customer for premises must hold either a retail authorisation or be exempted by the AER from the requirement to hold an authorisation.⁴³⁷ The NERL specifies the principles⁴³⁸ and exempt seller and customer related factors⁴³⁹ that the AER may consider when granting an exemption. These influence the AER's decision on the need for certain exemption classes, the conditions that should attach to them and whether or not to close these classes to future entrants.

The exemption framework under the NERL gives the AER broad discretion to decide whether an authorisation or exemption is appropriate.⁴⁴⁰

AER retail exempt selling guideline

The AER's retail exempt selling guideline provides guidance about when there is a sale of energy for the purposes of the NERL. It details how the AER will determine if it should grant or refuse a retail exemption.⁴⁴¹

Given the NERL does not define 'premises', the AER has adopted a broad interpretation of what premises are and has taken a pragmatic approach when interpreting it.⁴⁴² For example, it can include residential homes or other places of residence (for example, a caravan park where residents permanently reside), shopping centres and commercial sites.

The AER guideline also includes an interpretation of what the sale of energy is. It indicates that if a person sells gas or electricity to a person or business for use at premises, and the cost is itemised in a separate, discrete charge, it is likely that a retail energy authorisation is required.⁴⁴³

The following are examples of activities considered to be the sale of energy under the AER's guideline:⁴⁴⁴

436 AER, retail exempt guideline; AEMC, *Updating the Regulatory frameworks for embedded networks*, final report, p. 13.

437 NERL, section 88.

438 NERL, section 111 and 114.

439 NERL, sections 115 and 116.

440 The AEMC recommended changes to the exemption framework as part of the embedded networks review in 2019. These recommendations are to be progressed by COAG Energy Council. For further details please see section 11.2.2.

441 AER, Retail exempt selling guideline, p. 4.

442 Ibid.

443 Ibid.

444 AER, Retail exempt selling guideline, p. 4.

- energy sold to a long-term resident of a caravan park, based on the resident's metered consumption
- energy sold to tenants of a residential apartment block based on each residents' metered consumption (but not included in rent)
- energy costs passed through—at no profit—from a landlord to a tenant
- unmetered energy where a commercial landlord is billed and then apportions the cost between tenants
- energy sold to builders working on a construction site, even though it is on a temporary basis
- energy sold through power purchase agreements to supplement the energy a customer buys from an authorised retailer.

Additionally, the exemption framework enables the AER to consider *any other seller* and *customer related matters*.⁴⁴⁵ In the past, under this provision the AER has considered the following matters to be relevant:⁴⁴⁶

- Unmetered supply: if the jurisdictional energy legislation has specific requirements in this regard an exemption may be adequate.
- Decentralised energy: for *co-generation, tri-generation and sustainable energy*, in the short term, it is covered by individual exemptions.

Using these provisions the AER has exempted certain embedded networks⁴⁴⁷, solar PV and batteries and solar purchase agreements.

AER statement of approach

Since the NERL commenced, the AER has been approached by a range of business offering new energy products and services, which involve the sale of energy. The majority of these have been from solar panel providers wishing to sell energy generated from solar panels. In June 2014, the AER published a statement of approach to outline their position on regulating *alternative* energy sellers.

In the statement of approach the AER provided more details on what they considered when deciding if a business needs to be authorised or exempted to sell energy.⁴⁴⁸ The AER noted that the principles and factors in the NERL and the elements below, should "*be read in conjunction with one another and not in isolation*".⁴⁴⁹

1. The nature of the service provided to the customer; that is, whether the customer's general energy supply could be disconnected (whether the service provided is optional or discretionary).

445 NERL, sections 115(1)(g) and 116(c).

446 AER, Retail exempt guideline, pp. 29-30.

447 There are other jurisdictional provisions to regulate unmetered embedded networks (e.g. Queensland).

448 AER, Statement of approach, Regulation of alternative energy seller under the National Energy Retail Law, pp. 7-8.

449 AER, Statement of approach, Regulation of alternative energy seller under the National Energy Retail Law, pp. 8.

2. Whether the form of regulation is appropriate and fit for purpose. The AER will examine if the full range of customer protections is necessary, a lesser level of regulation may be appropriate and an exemption may be sufficient.
3. Whether it duplicates existing regulation. The AER considers if an individual exemption can be tailored to complement protections under other relevant legislative frameworks but not duplicate them.

The AER defined a solar panel purchase agreement (SPPA) as a financial arrangement where a business provides, installs and maintains a solar panel system to a customer. In exchange, the customer pays an agreed price for the energy provided by the solar panels for a specific period. The AER considered that the energy sold under a SPPA is discretionary and additional to the energy sold by an authorised retailer. Importantly, this means the impact of disconnection by the SPPA does not mean leaving the customer without energy supply.⁴⁵⁰

The AER's final statement of approach concluded that a retail authorisation is likely to be required if the seller meets the following criteria:⁴⁵¹

- it is the primary source of energy to the premises of a small customer
- sells a particular fuel across multiple sites
- it is registered in the wholesale market for a particular fuel source
- it is the financially responsible retailer for the particular premises.

And a retail exemption may be granted if the seller is:⁴⁵²

- providing a supplementary or add-on service to customers who are purchasing energy from an authorised retailers, or
- the energy provided is part of bundled service and forms an insignificant part of that contract.

11.2.2 Reflecting on recent changes

Recently, the Commission has reviewed the application of the NECF to two models of supply. This was done as part of:

- the stand alone power systems (SAPS) reviews - priority 1⁴⁵³ and 2⁴⁵⁴
- the embedded networks review.⁴⁵⁵

Both models involve the sale of energy (in most cases), and therefore, the regulatory analysis focused on whether the NECF should apply, how to provide for it to apply, and if additional or alternative consumer protections should be in place.

The Commission's recommendations on how the NECF should be applied to these models of supply are outlined below. Both required law and rule changes.

450 Ibid, p.5.

451 Ibid.

452 Ibid.

453 AEMC, *Review of stand-alone power systems*, final report (priority 1), May 2019.

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

455 AEMC, *Review into the regulatory arrangements in embedded networks*, final report, 28 November 2017.

Stand-alone power systems

In May 2019, the Commission published a final report on its review of the regulatory frameworks for SAPS – priority 1. In this review, the Commission assessed the appropriate consumer protections for customers transitioned from a NEM connected supply to a SAPS provided by a distribution network service provided (DNSP).⁴⁵⁶ The Commission recommended that the existing energy-specific consumer protection framework be extended to such customers.

Crucial to the Commission's decision was that the customer's electricity supply was solely through the SAPS and that the transition was occurring as a substitute for grid supplied energy at the DNSPs choice.⁴⁵⁷ Consumers transitioning to a DNSP SAPS supply are not choosing to move off-grid for their own reasons. Therefore, the inability of the customer to make a choice was a criterion used in the Commission's decision to maintain existing consumer protections for DNSP-led SAPS customers.⁴⁵⁸

Regarding the application of the NECF, in New South Wales, South Australia and Tasmania, the NERL and the NERR only apply to customers supplied via the interconnected national electricity system. This is due to provisions in those jurisdictions' NERL application Acts. In the review, the Commission recommended changes to jurisdictions' NERL application Acts in conjunction with changes to the National Electricity Law to extend the application of the NECF to energy provision by DNPS-led SAPS.⁴⁵⁹

On 31 October 2019, the Commission published a final report on the provision of energy by third-party SAPS, meaning SAPS established by parties other than local distributors (priority 2). The approach set out in that report aimed to provide a more flexible framework capable of accommodating the broader range of providers and circumstances that could be associated with third-party systems.⁴⁶⁰

The Commission recommended that the regulatory framework for third-party SAPS differ in some aspects from the regulatory framework for other electricity supply models (embedded networks, DNSPs-led -SAPS, or the traditional supply of energy). It developed a tiered framework categorising third-party SAPS additionally recommending variations to regulatory obligations under each of the three categories.⁴⁶¹ These variations from both other electricity supply models, and within the categories of third-party SAPS, were recommended due to:

456 A stand-alone power system is an electricity supply arrangement that is not physically connected to the national grid. AEMC, *Review of stand-alone power systems*, final report (priority 1), May 2019, p. i.

457 The customer could still have access to behind the meter energy supply, but they did not have the option to be connected to the grid.

458 AEMC, *Review of the regulatory frameworks for stand-alone power systems*, final report (Priority 1), 30 May 2019, p. 36.

459 SAPS priorities 1 and 2 proposed changes to the definition of the national electricity system to include stand-alone power systems and stand-alone networks. The Commission recommended the definition for the national electricity system in the NEL is modified to include generating systems, transmission systems or distribution systems, regulated stand-alone power systems and covered stand-alone networks. For further details please see [Review of the regulatory frameworks for stand-alone power systems](#), priority 1, final report, p. 118.

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

461 The Commission considered three categories. The very largest systems would be regulated under national frameworks, but smaller systems - likely to be by far the majority - would be subject to jurisdictional arrangements. For further details on these categories please see [Review of regulatory arrangements for stand-alone power systems, final report \(priority 2\)](#), p. 203.

- the extent to which customers are able to exercise choice, and hence the role of customer consent
- differences in the types, sizes and circumstances of third-party SAPS
- the underlying costs to supply a customer in a third-party SAPS, particularly in the context of very small SAPS
- likely vertical integration of the SAPS provider
- the costs of regulation for category 2 and 3 third-party SAPS
- the potential for effective competition in retail and generation markets to emerge, and hence the feasibility of vertical integration.⁴⁶²

For example, given that effective retail competition is unlikely to emerge between category 2 microgrids, there are a number of obligations under the NECF which would not be applicable. These relate to the tripartite relationship between the customer, retailer and distributor along with obligations relating to Retailer of Last Resort, settlement, marketing and transfers, among others. The Commission considered that the appropriate consumer protections for category 2 third-party SAPS contained in the NECF can be applied via equivalent jurisdictional licence conditions.⁴⁶³ For category 3, which include individual power systems (IPS) for a single customer⁴⁶⁴, the Commission considered that while there might not be a sale or supply of energy (in which case the NECF would not apply), the IPS will still be covered by the ACL. Imposing additional energy-specific regulations beyond those relating to safety would not be proportionate or consistent with the existing national and jurisdictional approach to energy regulation.⁴⁶⁵

Embedded networks

In December 2017, the Commission published its final report on the Review of regulatory arrangements for embedded networks.⁴⁶⁶ In this report, the Commission found that the exemption framework was no longer fit for purpose given the growth in number and scope of embedded networks. The Commission concluded that the framework did not achieve an appropriate balance between innovation, consumer protection and facilitating consumer access to retail market competition. It recommended changing the regulatory framework so it remained fit for purpose and promote greater alignment of regulation between standard supply customers and embedded network customers.⁴⁶⁷

In June 2019, the Commission published a final report with a package of recommended law and rule changes for the subsequent review updating the regulatory frameworks for embedded networks. The new regime proposed to elevate embedded networks in the

⁴⁶² AEMC, *Review of the regulatory frameworks for stand-alone power systems- priority 2*, final report, pp. 43, 44.

⁴⁶³ AEMC, *Review of regulatory arrangements for stand-alone power systems*, final report (priority 2), 31 October 2019, pp. 54, 178-180.

⁴⁶⁴ An IPS is a SAPS that generated and supplies electricity to a single customer. Typically, power is generated by a combination of renewable generation, energy storage and/or conventional diesel generators. AEMC, *Review of the regulatory frameworks for stand-alone power systems*, final report (priority 2), p. 2.

⁴⁶⁵ *Ibid*, p. vi.

⁴⁶⁶ AEMC, *Review into the regulatory arrangements in embedded networks*, final report, 28 November 2017.

⁴⁶⁷ AEMC, *Review into the regulatory arrangements in embedded networks*, final report, 28 November 2017, p. iv.

national framework to provide consistent treatment for most small customers, including greater access to retail competition and the extension of consumer protections. The proposed framework will not be implemented until the COAG Energy Council has agreed the amendments to the electricity and energy retail laws based on the AEMC's proposed changes and these amendments have been made by the South Australian Parliament.⁴⁶⁸

Under the proposed new framework, a retailer who sells energy through an embedded network to small customers would be required to be either an off-market retailer or a standard retailer, both authorised by the AER.⁴⁶⁹ Regarding the retail exemption framework, the Commission proposed to limit individual and registered exemptions⁴⁷⁰ and to discontinue deemed exemptions.⁴⁷¹ It also recommended removing the exempt seller and customer related factors from the NERL and instead specify in the NERR the categories of activity for which the AER could determine classes of registrable exemptions.⁴⁷² If an exemption is justified the exemption would be required to be registered to give the AER regulatory oversight.⁴⁷³

The Commission recommended that the AER retain the power to grant an individual exemption subject to customer-focused criteria. Individual exemptions would only be granted in special circumstances and where customers have access to retail competition and consumer protections.⁴⁷⁴ Further, the Commission recommended that under the proposed framework, individual exemptions only be granted where the exemption is for the sale of energy for premises at a site or contiguous sites specified in the individual exemption and if the AER is satisfied that:⁴⁷⁵

- the exempt small customers will be afforded the right to a choice of retailer in the same way as comparable retail customers in the same jurisdiction
- the exempt customers will not be denied NECF customer protections afforded to retail customers
- it will result in, or is likely to result in, a benefit to exempt customers that is not available unless the individual exemption is granted
- the benefits would outweigh the detriments that would result from the grant of the individual exemption
- special circumstances exist such that the grant of an individual exemption is warranted.

468 AEMC, *Updating the regulatory frameworks for embedded networks*, final report, p. i.

469 Under the NER, the off-market retailer will be required to appoint a metering coordinator, and where it is the registered local embedded network retailer (and the designated retailer under the NERL), it will be obliged to have available an offer to all off-market and new customers in the embedded network it has been nominated for. AEMC, *Regulating the regulatory frameworks for embedded networks*, final report, p. 53.

470 An individual exemption usually applies to the supply or sale of energy at a particular site and/or to a particular customer or group of customers. Individual exemption apply to more bespoke or one-off arrangements and allow the AER to tailor the conditions of the exemption. AEMC, *Updating the regulatory frameworks for embedded networks*, final report, p. 16.

471 Deemed exemptions apply automatically to certain type of energy sellers and networks which do not require registering with the AER for the sale of energy.

472 AEMC, *Updating the regulatory frameworks for embedded networks*, final report, p. 54.

473 AEMC, *Updating the regulatory frameworks for embedded networks*, final report, pp. 15, 43-44, 55-57.

474 AEMC, *Updating the Regulatory frameworks for embedded networks*, final report, p. 55.

475 AEMC, *Updating the Regulatory frameworks for embedded networks*, final report, p. 56.

With the above, the Commission built on the criteria that help determine the application of the NECF and guide the AER to decide when an authorisation or an exemption is needed.

Providing clarity on the NECF

The above reviews on embedded network and SAPS are examples of proposed changes to the regulation of energy supply models to provide more clarity about when and how the NECF applies. For embedded networks, energy is sold to customers in the traditional way, by poles and wires through the interconnected power system to the customer's premises. But the NECF does not currently apply as the sale is made by parties who are exempted from the requirements that apply to retailers. The proposed changes would limit and regulate those exemptions. For SAPS, energy is provided in a non-traditional way given that customers are not connected to the grid. Therefore the NECF currently does not apply in some jurisdictions (as a result of the limits in jurisdictional applications Acts). The proposed changes would address this where it was considered appropriate for the NECF to apply.

Section 11.3. will consider other business models where new energy products and services may involve the sale of energy and further changes to the regulatory framework may be required to clarify the application of the NECF.

11.3 New energy products and services

In this evolving market, new business models have emerged, providing customers with new, non-traditional energy products and services. This means there are two main challenges from a regulatory perspective with new, non-traditional energy products and services that:

1. may involve the sale of energy - the boundaries of the NECF and its application is likely to become increasingly uncertain.
2. do not involve the sale of energy - it is necessary to analyse whether there is a need for additional consumer protections over and above the ACL.

These two issues will be analysed in the following sections.

11.3.1 New energy products and services that involve the sale of energy

New business models and innovations

There are a number of new business models and innovations in the NEM that were not contemplated when the NECF was developed. Examples of such business models and innovative products and services are discussed below.

Battery service provider (BSP)

A BSP controls BTM batteries and aggregates battery storage units, and potentially other types of DER, into a virtual power plants (VPP).⁴⁷⁶ 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

⁴⁷⁶ AEMC, 2019 Retail energy competition review, *final report*, chapter 8.

specific retail market offer(s) available on the condition the customer is also contracted with the BSP.

This business model means the tripartite relationship between the customers, the retailer and the distributor has changed to include a new player, a fourth party who will support the customer on their usage, generation and storage. Companies that provide these service models include Reposit, Powershop, Sonnen and Energy Locals.

Virtual Power Plants

AEMO is working with other market bodies⁴⁷⁷ to allow VPPs to demonstrate their capability to deliver services in energy and FCAS markets. By trialling VPP operations while the number of VPP operators and the aggregated capacity is relatively small (less than 5-10 MW per VPP operator), the VPP demonstrations aim to inform the effective integration of VPPs into the NEM before larger VPP scale is reached.

These demonstrations have allowed bi-directional BTM aggregated DER assets (such as home batteries) to provide frequency services as both generation and load.⁴⁷⁸ 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 RERT (i.e. emergency demand response) arrangements in the NER.⁴⁷⁹ 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.

Powershop managed 8,000 customers to provide nearly 4MW of emergency reserve through reducing consumption. The result shows residential energy users can play an active role in responding to grid emergencies.

Solar power purchase agreements

SPPA's are financial arrangements in which a business provides, installs and maintains, at no initial cost, a solar panel system to a customer. 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.

White label retailing

A third party will engage with a 'white-label' retailer (authorised retailer) and with the consumer. The white-label retailer offers a number of retail services to a third party through

477 Australian Renewable Energy Agency (ARENA), the Australian Energy Market Commission (AEMC), the Australian Energy Regulator (AER), and members of the Distributed Energy Integration Program (DEIP).

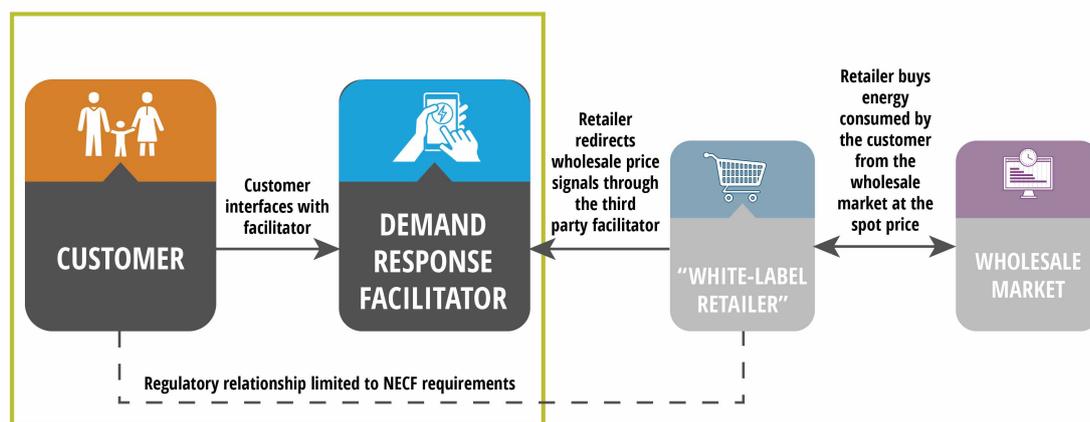
478 AEMO, [Virtual Power Plant demonstration, Knowledge sharing report](#), March 2020, p. 17.

479 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.

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.⁴⁸⁰ 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.

In the example of wholesale demand response, the third-party is leveraging the retail licence and some 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 11.1.

Figure 11.1: 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. 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 still 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 and under this business model, Energy Locals does not have any direct involvement with consumers.

Charging electric vehicles

EV charging stations in apartment complexes are becoming increasingly common. The business model currently in place, requires the installation of a charging station at the

⁴⁸⁰ Energy Locals offers, a retail licence, pricing management, wholesale energy purchasing, risk management, billing, compliance, customer service.

apartment complex and that the energy provided at that connection point is measured individually. The AER has noted that for a business selling energy to a residential premise it is likely that any exemption agreement would place conditions similar to the NECF obligations on the exempt sellers.⁴⁸¹ It is unclear if the energy sold for an EV through a connection point located at an apartment complex is considered to be a sale of energy at premises and whether an authorisation or exemption is required.⁴⁸²

How the NECF applies to new business models

For the above examples, it is important that the application of the NECF is clear enough to determine when a business requires a retail authorisation or exemption. With the fast pace of innovation and new technologies entering the market, there will be new ways in which energy is sold and supplied to customers. Therefore, it is relevant to ensure the scope of the NECF is clear. There is an opportunity to consider whether the energy-specific framework remains suitable to only regulate activities that need energy specific regulation and unnecessary regulation is not imposed.

Given the changing pace of the energy market, the Commission will continue to explore whether the regulatory tests that define the application of the NECF may require changes to appropriately exclude or include new market developments.

11.3.2

New energy products and services that are not considered under the NECF

Consumers of new, non-traditional energy products and services are protected under the ACL general consumer protections.⁴⁸³ However, the Commission considers that it is important to determine if additional consumer protections over and above the ACL should be in place. Industry and consumer advocates have recently developed a voluntary framework, the New Energy Tech Consumer Code (NETCC), to protect consumers who buy new energy technologies. This voluntary framework covers all businesses providing residential and small business consumers with 'new energy tech products, systems and services'.⁴⁸⁴

In 2008, the Productivity Commission reviewed the Australian consumer protection framework and 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.⁴⁸⁵

481 AER, Exempt retail guideline, March 2018, p. 19.

482 The regulatory gap is related to the lack of clarity around regulations applicable to billing for supply of energy to EVs in a car-park of a multi-residential structure. Electric Vehicle Council's submission to AEMC Issues paper 2020 Retail energy competition review: Electric vehicles, February 2020, p. 4.

483 Unfair contract term provisions, general protections prohibiting misleading or deceptive conduct, unconscionable conduct, specific protections against unfair practices, consumer guarantees. For further details please see [How consumers are protected under the NECF and the ACL](#).

484 For further details please see [New Energy Tech Consumer Code](#).

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

Using this as a basis, the below outlines the Commission's view on whether there are some additional and complementary actions that could be taken for consumers or energy products and services that are not covered by the NECF.

Consumer risks and harms

The Commission notes that throughout the consultation for this review, stakeholders mentioned there are no additional material risks to consumers outside the scope of the existing energy consumer framework.⁴⁸⁶ Submissions noted that risks associated to new energy products and services are usually related to a financial impact given a lack of information on new energy products and services performance, installation issues or curtailment of energy coming from the DER.⁴⁸⁷

A consumer who buys new products or services may find it difficult to determine if at the time of purchase, the new product will meet their future energy needs. This is particularly the case if consumers are not well-informed of the effects of their new technology on their energy production or consumption. While these concerns may be covered by the ACL's provisions on service standards and quality,⁴⁸⁸ the Commission considers that information related to new energy products and services could be hard to gauge before or even after purchase. This risk was identified and addressed by the NETCC by requiring that signatories support consumers in making a fit-for-purpose choice given the nature, complexity and cost of new energy technologies.⁴⁸⁹

Chapter 10 provides a summary of reasons why the Commission considers voluntary codes can have benefits for the energy market and consumers. A particularly strong feature of voluntary codes is that service and product definitions such as that within the NETCC can be framed very broadly with little prospect for inadvertently capturing providers where consumer protections are unnecessary. That is, each business is able to decide whether to be a signatory of the code. Regardless of the specific business model, product or service provided to the customer, there are core protections that in general must apply to new energy technologies, which are outlined in the NETCC. Being a signatory of the NETCC will provide benefits not only to consumers but may create a competitive advantage to providers who are willing to deliver better outcomes to consumers and promote the adoption of the code. The NETCC⁴⁹⁰:

is an early and important example of a flexible, industry-led approach to consumer protection that should be supported by the sector and studied for lessons about future frameworks.

486 Submissions to issues paper 1: Australian Energy Council, p.7; EWOQ, p. 4.

487 Submission to issues paper 1: EWOQ, p. 4; EWON, p.4; EWOSA, p. 7. EWOV, *Charging ahead, New energy technology and the future of energy complaints in Victoria*, p. 6

488 Consumer guarantees and product regulation (Liability for loss or damage) under the ACL. For further details please see [here](#).

489 Practices required under the code for advertising and promotion and marketing and sales. New technology Consumer Code, Attachment B - Revised Draft for ACCC.

490 Energy Consumer Australia, submission to issues paper 1, p. 1.

However, once the NETCC comes into effect, the main risk for consumers if things go wrong is not having access to an independent, specialist and timely redress mechanism, such as an energy specific Ombudsman scheme.

Access to redress and enforcement mechanisms under the ACL is complex and the interaction with the sale of energy requires specialist knowledge. It is recognised that there are substantial barriers to seeking redress through the formal mechanisms available under the ACL, which can make it difficult or impractical for individuals to seek redress.⁴⁹¹ These barriers 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.⁴⁹²

In 2017, the Independent review into the Electricity and gas retail markets in Victoria recommended expanding the powers of the Energy Water Ombudsman Victoria (EWOV) covering emerging energy businesses, products and services.⁴⁹³ In response to this review, the Victorian Government proposed to work with industry on the 'behind the meter' code (now the NETCC), and determine if there is a need to extend EWOV's jurisdiction to cover new energy products and services.⁴⁹⁴

In a recent research report from the Australian and New Zealand Energy and Water Ombudsman Network (ANZEWON)⁴⁹⁵ ombudsman schemes,⁴⁹⁶ industry bodies and consumer advocates agreed energy consumers of new energy products and services should have access to a specialised energy and water ombudsman scheme.⁴⁹⁷ Throughout ANZEWON's consultation, there was near universal support for expanding the jurisdiction of the schemes as:

- it is faster and minimises the costs for all parties (consumers and businesses) relative to pursuing a claim through either a tribunal or court
- it reduces complexity for consumers and minimises the potential for retailer reputational harm
- consumers see the schemes as a 'one stop shop' for resolving complaints relating to energy and water sectors.⁴⁹⁸

The Commission agrees energy Ombudsman schemes have the knowledge and experience to handle consumer complaints for new energy products and services. It can also reduce confusion for energy consumers about where to go when an energy issue arises, regardless if

491 Productivity Commission, *Research report consumer law enforcement and administration*, March 2017.

492 AEMC, *How energy consumers are protected under the NECF and ACL*, September 2019, p. 31.

493 Recommendation 10. Independent review panel, *Independent review into the Electricity and gas retail markets in Victoria*, August 2017, p. 59.

494 Victorian Government, *Victorian Government final response to the Independent review of the electricity & gas retail markets in Victoria*, p.16.

495 University of Sydney, *What will energy consumers expect of an energy and water ombudsman scheme in 2020, 2025, 2030?*, December 2019.

496 EWOQ, submission to issues paper 1, p. 4.

497 University of Sydney, *What will energy consumers expect of an energy and water ombudsman scheme in 2020, 2025, 2030?*, December 2019, p. 64.

498 *Ibid*, p. 41.

it is for the traditional sale of energy or new, non-traditional energy products. This was supported by Renew who agreed that "*[h]aving different complaints mechanisms under different consumer frameworks risks consumer confusion and people slipping through the gaps.*"⁴⁹⁹

The Commission supports the ANZEWON recommendation that energy Ombudsman schemes should consider extending their jurisdiction to handle consumer complaints regarding any service relating to the *sale or supply of energy, or that may otherwise interrupt the supply or impact upon the sale or supply* of it in relation to the NETCC. Consumers of new energy products and services will continue to claim and access ACL protections through its enforcement actions and redress mechanisms before the ACL regulators. The proposed dispute resolution mechanism will complement this framework, as currently the energy ombudsman schemes do under the NECF.

The Commission considers the NETCC is an appropriate framework to use. It includes information provisions on new energy products and services performance, marketing and offers obligations and installation requirements, among others. These consumer protections address most of the issues identified by Ombudsman schemes. This code includes protections for products and services not covered by the NECF. Industry and consumer advocates considered consumer protections beyond the ACL could be provided and if there is a need for additional protections, these should be developed under this voluntary code.

The NETCC is a voluntary framework and therefore signatories of the code would be agreeing to let energy Ombudsman schemes act as part of a dispute resolution escalation process. The NETCC includes a requirement for participants to have a dispute resolution procedure, which means energy Ombudsman schemes will only be an option if the customer is unhappy with the outcome of this dispute resolution mechanism, rather than an automatic first option. Consumers must still try to resolve complaints internally with the participant prior to resorting to this process. This will also mean that if the customer has a complaint regarding any prohibited practice or consumer protection under the ACL, the resources under this framework will continue to be available (e.g. submitting a complaint before State Consumer Affairs or Fair Trading body).

Under this approach, energy consumers would have available consumer protections under:

- the NECF for the sale of energy
- the ACL for new energy products and services not covered under the NECF
- and given the technicality and relationship with the sale of energy, the option to access Ombudsman schemes if their product and services is provided by a NETCC signatory.

If the outcomes that energy consumers achieve under this model are improving over time, no further regulation action may be required.

Extending the benefits of having a specialist redress mechanisms would provide the right tools for consumers to make the most out of these new technologies without imposing the costs of a mandatory framework. This will allow the market to continue to evolve and

⁴⁹⁹ Renew, submission to issues paper 1, p. 10.

maximise the current consumer frameworks available to energy consumers (please see Section 9.3). Whether the benefits to consumers under this voluntary framework could translate into a competitive advantage for signatories or there is a need to make participation under a mandatory code, will be key considerations for jurisdictions and Ombudsman schemes when the scheme is in practice.

The Commission acknowledges there is some level of sensitivity relating to compliance with a voluntary framework. Given the NETCC is a voluntary code, it will be necessary to put in place some safeguards, such as monitoring of outcomes, to determine if the code is providing adequate and effective protections for consumers. Under this recommendation, energy Ombudsman schemes will also be able to collect more data on signatories' performance under the NETCC and will be able to track the number of complaints from non-signatories. This will help monitor the effectiveness of the NETCC.

In general, the Commission considers the NETCC is a voluntary framework that provides an opportunity to adopt a principles-based and voluntary framework and analyse what must be delivered to protect consumers of new energy products and services in an evolving market. The Commission believes that the NETCC is an opportunity to promote industry initiatives and will continue to investigate how such codes could be used within the evolving energy market.

11.3.3 Consumer protection in a two-sided market

The COAG Energy Council has tasked the ESB with developing advice on a long-term, fit-for-purpose market framework that could apply from 2025. A critical component to this work is considering the move to a two-sided market.

In 2019, the Commission considered the potential to move to a two-sided market as the next evolution of the market. A two-sided market is likely to fundamentally change the way consumers and retailers or third parties interact. In a two-sided market, consumers will be able to sell electricity and other services through a trader (retailer or aggregator). This means there may be new relationships between consumers and third parties currently not contemplated under the NECF.⁵⁰⁰

These relationships may involve, among other things:

- a third-party managing a consumer's information
- consumers facing a greater exposure to price signals
- new costs for consumers
- new financial incentives for consumers.

Information provision, pre-contractual and contractual obligations are key categories of consumer protection that must be considered in order for a two-sided market to generate value to consumers.

The Commission considers the work in considering consumer protections in a two-sided market as a continuation and extension of the work undertaken to date assessing the

⁵⁰⁰ AEMC, [How digitalisation is changing the NEM](#), The potential to move to a two-sided market, information paper, 14 November 2019.

relationship between the NECF and ACL, and the market developments that are testing whether the NECF remains fit for purpose. The consumer protection framework will need to find a balance between an appropriate level of protection while also minimising barriers to innovation.

ABBREVIATIONS

Delete and add abbreviations as appropriate.

5MS	Five Minute Settlement
ACCC	Australian Competition and Consumer Commission
ACL	Australian Consumer Law
ACMA	Australian Communications and Media Authority
ACT	Australian Capital Territory
AEC	Australian Energy Council
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ANU	Australian National University
ARENA	Australian Renewable Energy Agency
ASX 24	Australian Securities Exchange 24
ASX	Australian Securities Exchange
BEV	Battery electric vehicle
BSP	Battery Service Provider
BTM	Behind the Meter
C&I	Commercial and Industrial
CDR	Consumer Data Rights
COAG	Council of Australian Governments
Commission	See AEMC
CCA	Competition and Consumer Act 2010
DER	Distributed Energy Resources
DEIP	Distributed Energy integration Program
DMO	Default Market Offer
DNSPs	Distribution Network Service Providers
DoEE	Commonwealth Department of Environment and Energy
EAPA	Energy Accounts Payment Assistance Scheme
EBITDA	Earnings before interest, taxes, depreciation and amortisation
ECA	Energy Consumers Australia
EEPS	Emergency Electricity Payment Scheme
EIC	Explicit informed consent
ENA	Energy Networks Australia
ENERF	Electricity network economic regulatory framework
ESB	Energy Securities Board

ESC	Essential Services Commission
ESOO	Electricity Statement of Opportunities
ESS	Integrating energy storage systems
EV	Electric vehicles
EVC	Electric Vehicle Council
EWON	Energy and Water Ombudsman New South Wales
EWOV	Energy and Water Ombudsman Victoria
FCAS	Frequency Control Ancillary Services
FCEV	Fuel cell electric vehicle
FRMP	Financially responsible market participant
HCC	Health Care Card
HEEAS	Home Energy Emergency Assistance Scheme
HHI	Herfindahl-Hirschman Index
ICE	internal combustion engine
ICRC	Independent Competition and Regulatory Commission
IEA	International Energy Agency
KW	Kilowatt
KWh	Kilowatt hour
LNG	Liquified natural gas
MASP	Market ancillary service provider
MASS	Market Ancillary Service Specifications
MW	Megawatt
MWh	Megawatt hour
MCE	Ministerial Council on Energy
MLO	Market Liquidity Obligation
MT PASA	Medium term Projected Assessment of System Adequacy
MTR	Multiple trading relationships
NECF	National Energy Consumer Framework
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National electricity objective
NERL	National Energy Retail Law
NERO	National energy retail objective
NERR	National Energy Retail Rules
NETCC	New Energy Tech Consumer Code
NGL	National Gas Law
NGO	National gas objective
NGR	National Gas Rules

NSW	New South Wales
NZEA	New Zealand Electricity Authority
Ofgem	The Office of Gas and Electricity Markets
OTC	Over-the-counter
P2P	Peer-to-peer
PCC	Pensioner Concession Card
PDF	Payment Difficulty Framework
PHEV	Plug in hybrid electric vehicle
PIAC	Public Interest Advocacy Centre
QCOSS	Queensland Council of Social Service
QHES	Queensland Home Energy Survey
RERT	Reliability and Emergency Reserve Trader
ROLR	Retailer of Last Resort
SAPS	Stand-alone Power System
SCO	Senior Council of Officials
SGA	Small Generation Aggregator
SME	Small to medium enterprise
SMS	short messaging service
SOE	AER's Statement of Expectation
SOLR	Supplier of Last Resort
SPPA	solar panel purchase agreement
URGS	Utility Relief Grant Scheme
V2G	Vehicle to grid
V2H	Vehicle to home
VDO	Victorian Default Offer
VPP	Virtual Power Plant
WHO	World Health Organisation

A NEM FINANCIAL MARKET RESILIENCE REVIEW FINAL REPORT- RECOMMENDED CHANGES TO THE ROLR SCHEME

In 2015 the Commission published the NEM financial market resilience final report. The Commission concluded that while the NEM's risk management practices are well designed and established, a threat to financial stability in the NEM would arise if a large retailer experienced financial distress. This is because of the significant financial obligations that would be placed on a retailer of last resort when it acquires a large number of customers, which would need to be met in a very short time frame.

The Commission made recommendations to address this scenario, including four recommendations to improve the ROLR scheme, which targeted the cash flow and additional credit support challenges faced by a ROLR. The Commission considered changes could allow financial shocks to the NEM to be absorbed more readily through a more effective sharing of the risk across the market. They would also allow the ROLR scheme to operate more effectively in a broader set of circumstances.

This appendix explores these recommendations in detail and provides the Commission's current views on each recommendation.

A.1 Revised cost recovery arrangements

Under the existing NECF regime, the designated ROLR may be able to recover all of its reasonable costs. However, some of the NERL provisions may undermine the confidence of the designated ROLR - and those who finance it - that the ROLR can recover all of its reasonable costs. Furthermore, the NERL provides little certainty as to what costs are recoverable. Instead, the AER is given broad discretion.

If cost recovery is delayed and uncertain, it could present cash flow problems for the ROLR(s) and make it more difficult for them to secure financing. Where the ROLR event involves the failure of a large retailer, this could result in financial distress or failure of the ROLR, and lead to cascading retailer failure and instability in the NEM.

The 2015 NEM Financial Resilience Review recommended cost recovery changes targeted to address the uncertainty of cost recovery and its impact on cash flow, financing, and access to credit support. Those recommendations included the following changes to the ROLR arrangements in the NERL to provide increased certainty that a ROLR can quickly recover its reasonable ROLR costs:

- Remove the requirement in the NERL that, when making its cost recovery decision, the AER be guided by the principle that the registered ROLR will itself bear some of the costs in proportion to its customer base. The ROLR should not be required to bear a proportion of the ROLR costs. This is because it is important for ROLRs to have confidence that reasonable costs will be recovered and it could assist them to seek finance on the basis of future cash flows. However, retailers should still have the ability to offer to bear some

costs, as this may encourage retailers to offer competitive terms to become a ROLR, where retailers see a significant benefit in being able to acquire the customers of the failed retailer.

- Further clarify the AER's approach to ROLR cost recovery by introducing an additional cost recovery principle in to the NERL - that the actions of the designated ROLR in performing its obligations have been prudent in the circumstances.
- Further clarify the types of costs that may be recovered by specifying, without limitation, the types of costs that the ROLR has the right to recover in relation to a ROLR event. These costs may include:
 - administration costs
 - additional energy costs in relation to the acquired customers (to the extent that they are not recovered in the prices charged to those customers);
 - financing costs in relation to additional credit support that is required to be provided to AEMO in relation to the acquired customers; and financing costs to cover the period from when the costs are incurred and when they are recovered under this mechanism.
- Specify a three month period from the date of the ROLR event during which a ROLR cost recovery application must be made. For default ROLRs, this three month timeframe would apply from the date of appointment as a default ROLR. This approach would potentially speed up cost recovery determinations by requiring ROLR cost recovery applications to be made sooner. The AER has advised that it may not be practical for ROLRs to assess some classes of ROLR costs within three months (for example IT upgrades) for default ROLRs. Therefore, the AER should have the discretion to allow the recovery of costs beyond the initial three-month period where the ROLR can provide evidence that it is prudent to do so.
- Enable the AER to fast-track all or part of a ROLR cost recovery application where the ROLR costs claimed are clearly identifiable and quantifiable. The NERL currently requires a minimum 20 day consultation period for ROLR cost recovery applications. To facilitate a fast-track ROLR cost approval process, the Commission recommends a change to the NERL to provide the AER with discretion over the length of consultation required in considering the fast-tracked costs.
- Specify that the AER is only able to amend the costs recoverable under a ROLR cost recovery scheme if that determination is affected by a material error deficiency such as the provision of false or misleading information to the AER. This amendment would provide ROLRs with greater certainty in relation to cost recovery.
- Clarify that the full recovery of ROLR costs should be undertaken through distributor payment determinations. Currently the NERL is unclear as to the mechanism that should be used to recover ROLR costs. This change would provide greater certainty in relation to how ROLR costs would be recovered.

The Commission considers these recommendations remain relevant. They offer an appropriate balance between providing customers with protection from the pass through of inefficient costs, while recognising that the ROLR is performing an important function by

ensuring customers have continuity in retail services following the failure of a retailer. Reducing the financial uncertainty and cash flow risk faced by the designated ROLR(s) would have a number of benefits:

- The designated ROLR would be likely to have more success in borrowing funds to cover the short-term costs of being a ROLR because it would have more certainty that reasonable ROLR costs can be recovered and about the timing of cost recovery. Also improving cash flow after a ROLR event would likely reduce the risk of cascading retailer failure.
- Similarly, the designated ROLR would be likely to have more success in obtaining the additional credit support required for AEMO because its future cash flows would be more certain.
- Increased certainty over cost recovery could encourage an increase in the number of retailers volunteering to become ROLRs. The appointment of multiple ROLRs would reduce the impact of the ROLR event on each designated ROLR, spread the risks of being a ROLR among several retailers, and reduce the likelihood that the ROLRs experience financial distress or failure.
- By increasing the potential for multiple ROLRs it may also improve the long term competitiveness of the market by spreading the failed retailer's customers across a range of retailers. An increase in the number of ROLRs may also lead to ROLRs offering to bear more of the cost burden as they compete for the failed retailer's customers.

In addition, enhancing the ability for the ROLR to recover the reasonable costs of performing its functions offers benefits across the NEM, by reducing the risk of cascading retailer failure and the adverse impact this would have on customers. Furthermore, some of these recommendations offer the potential to reduce ROLR costs to the benefit of customers as providing ROLRs with greater certainty about cost recovery may mean they are able to obtain financing on more competitive terms and conditions.

A.2 Delayed designation of ROLR

The current provisions of the NERL make it unlikely that any retailer other than the default ROLR would be appointed as the designated ROLR, given the limited timeframe for the AER to designate anyone other than the default ROLR. Where the retailer in financial distress is large, this is likely to be problematic for the default ROLR because it would take on the liabilities and credit support requirements relating to a large number of customers.

It is also possible that the retailer facing suspension is a default ROLR, and that there are no firm additional ROLRs that could be appointed readily to take on its customers. In this case, the AER could be forced to make a decision at very short notice with no specific legal structure and limited information to guide it. This situation could require the AER to appoint a retailer as a designated ROLR without its consent.

Given this the 2015 NEM Financial Resilience Review recommended changes to delay the designation of a ROLR. The recommendation sought to amend the NERL to increase the time allowed for the AER to advise AEMO of the designated ROLR(s), up to 24 hours after the

ROLR event and protocols between AEMO and the AER should be amended to ensure consistency with this amended timeframe. As a result, the AER would issue a notice identifying the designated ROLR(s) 24 hours later than under the existing NECF framework, and the designated ROLR(s) would be informed of their appointment up to 24 hours later than they are at present. This would give the AER more time to assess the most appropriate allocation of customers following a ROLR event, and to negotiate with different retailers to allocate customers to designated ROLR(s).

This recommendation would require a distinction to be made between the following dates, which currently occur simultaneously under the NERL ROLR provisions:

- the date that the ROLR event occurs (for example the date of the suspension of the failed retailer from the NEM by AEMO, which constitutes a ROLR event under the NERL), which would reflect the ROLR transfer date; and
- the date that the designated ROLR is taken to be appointed.

The designated ROLR would be liable to AEMO for the energy consumed from the transfer date, while also being entitled to bill customers for energy consumed from that same point in time, as is the case under the current NECF provisions.⁵⁰¹ This delay in designation will mean there will be a period in which the designated ROLR is building up liabilities for the failed retailer's customers but has not yet been advised that it is the designated ROLR. During this time the ROLR is likely to be unhedged in relation to the energy purchases of the ROLR customers. The Commission recommended increasing this period by up to 24 hours, though the designated ROLR is likely to have some knowledge of its potential appointment as part of the AER's process.

The Commission noted that the AER currently has discretion as to whether to issue a ROLR notice following the suspension of a retailer from the wholesale market, or where a retailer ceases to be a registered participant in relation to the purchase of electricity through the wholesale market. In these situations, the ROLR scheme would need to be applied to provide for the continuity of retail services to the suspended retailer's customers. To reduce current uncertainty in relation to the application of the ROLR scheme, the Commission recommends that the NERL be amended to require the AER to issue a ROLR notice as soon as practicable in these situations.

Implementing the delay to the designation of the ROLR would require changes to the notices issued to affected participants, institutions and the public. Currently, after a ROLR event occurs, the AER must decide as soon as practicable whether to issue a ROLR notice.⁵⁰² If it decides to issue a ROLR notice, the notice is comprehensive in that it provides information on what the ROLR event was, the failed retailer, the ROLR appointed and the transfer date. Delaying the designation of the ROLR by up to 24 hours would require:

⁵⁰¹ The transfer date may be on, before or after the publication of the ROLR notice by the AER, but if the ROLR event involves a revocation of a retail authorisation or suspension from the spot market, the transfer date is the date of revocation or suspension - see NERL, section 136(5).

⁵⁰² NERL, section 136.

- the AER to issue a ROLR notice as soon as practicable following a ROLR event that identifies the date that the ROLR event occurred the failed retailer and the transfer date; and
- the AER to issue a ROLR designation notice to identify the appointed ROLRs within 24 hours of the ROLR event.

These changes would not preclude the AER from publishing a ROLR notice and a ROLR designation notice at the same time. The AER would maintain its current ability to appoint a designated ROLR before a ROLR event. There would also be no change to the current provision that where the AER determines to not designate a ROLR or issue a ROLR notice, the default ROLR is taken to be appointed.⁵⁰³

The Commission considers these recommendations remain relevant. The advantages of delaying the designation of the ROLR(s) include:

- Facilitating multiple ROLRs - The main limitation on the AER's ability to appoint multiple ROLRs relates to the tight timing of designation prior to a ROLR event occurring. Spreading customers between a number of retailers may also help maintain the long term competitiveness of the retail market, since it could reduce the concentration of customers in a small numbers of retailers;
- More time to consider the optimal allocation of customers - With more time available, the AER may be better placed to judge which retailers have sufficient financial resources to meet the obligations of the ROLR, and therefore to minimise the risk of the designated ROLR(s) failing. There would be more time for the AER to negotiate terms with potential ROLRs, while also maintaining confidentiality as the retailer tries to remedy the situation. There would be greater capacity for the AER to involve retailers who have made non-firm offers to be additional ROLRs. These retailers would have the benefit of knowing more about the extent of obligations they would incur as a designated ROLR (such as the number of customers involved and the current spot market prices).

While a delay in designating the ROLR means the ROLR would inherit an unhedged exposure to the spot price for all energy consumed over a longer period, the impact would be mitigated when combined with the recommendations to increase the certainty that the ROLR's reasonable costs would be recovered. Furthermore, the proposed changes to the timeline provide an opportunity for the AER to hold discussions with potential ROLRs, so retailers would likely be aware of their potential appointment and could begin preparations to put hedging contracts into place as soon as possible after appointment.

Separating the notices for ROLR events and ROLR designation may cause confusion to the customers of the failed retailer if they do not have information on who the designated ROLR is and when they will be transferred. However, the Commission considers the benefits to customers and market participants of delaying ROLR designation outweighs the inconvenience of not knowing which retailer(s) will take over the ROLR load for a short period of time.

503 NERL, section 132(1).

A.3 Delay in Credit support requirements

If the increase in credit support required by AEMO is substantial, it is possible that an otherwise solvent retailer could fail to meet these obligations in the time currently allowed. Should that occur, AEMO would be entitled to issue the designated ROLR with a default notice on the same day.⁵⁰⁴ If the default event is not remedied by 1pm the next day (or any later deadline agreed to in writing by AEMO), AEMO may issue a suspension notice.⁵⁰⁵ Suspension would constitute a second ROLR event,⁵⁰⁶ and could potentially have a cascading effect in which retailers are progressively suspended after being designated as ROLRs, leading to financial contagion and instability in the NEM.

Given this the 2015 NEM Financial Resilience Review recommended changes to delay the increase in credit support requirements. The recommendation sought to amend the NER to insert a minimum time before AEMO can require increased credit support from the designated ROLR as a result of its increased customer load. There would be a one-week 'period of grace' in relation to credit support requirements following a ROLR event, following which the required credit support would be ramped up in increments over a period of four weeks until it reaches the level that fully reflects the additional load of the customers from the ROLR event. This would more closely reflect the ROLR's increase in outstandings over this time as energy is consumed and its obligations to pay AEMO increase.

The recommended changes to the AEMO credit support requirements seek a balance between two factors:

1. on the one hand, allowing the designated ROLR to take up its new customers without having to bear the immediate risk or cost of sharply increased credit support requirements, thereby reducing the likelihood of cascading retailer failure; and
2. on the other hand, decreasing the amount of collateral held by AEMO and raising the possibility that, if the designated ROLR collapsed and was unable to pay AEMO, generators may be short-paid.

The precise form of credit support ramping would be set out in the credit limit procedure which AEMO is required to develop through public consultation under clause 3.3.8 of the NER. However, the Commission recommended that the NER be amended to require AEMO to take into account the desired form of credit support ramping.

The Commission considers these recommendations remain relevant. The changes give the ROLR more time to meet AEMO credit support provisions in relation to ROLR customers, which may be significant. This will reduce the risk of financial contagion occurring through operation of the RoLR scheme.

The Commission considers that it is important that the burden of a large retail load being transferred to a designated ROLR be reduced through the AER's current powers.

504 NER, clause 3.15.21(b).

505 NER, clause 3.15.21(c).

506 NERL, section 122.

The 2015 NEM Financial Resilience Review also recommended changes to delay the increase in DNSP credit support requirements. This recommendation is no longer required. The Retailer-Distributor Credit Support Requirements Final Determination removed the requirement for a retailer to provide credit support. Though, in the event of late payment, a retailer may have to provide credit support in the amount of the last invoice received which triggered the late payment provision.⁵⁰⁷

A.4 Enhancements for very large customers

Under the NERL, a large customer (i.e. a business customer who consumes energy at or above 100 MWh per annum⁵⁰⁸) can opt out of the normal ROLR arrangements and reach agreement with a retailer (the 'nominated retailer') to become its retailer if a ROLR event occurs.⁵⁰⁹ The large customer and the nominated retailer agree the terms and conditions of supply, and must both notify AEMO in writing. In the absence of such an agreement, a large customer affected by a ROLR event would be transferred to the designated ROLR. While the ROLR must charge small customers their 'standing offer' tariff, they can charge large customers a 'fair and reasonable' tariff, which must be published on their website.⁵¹⁰

The 2015 NEM Financial Resilience Review recommended enhancing the ROLR scheme in the way it applies to very large customers, which would be defined as those with an individual connection point with consumption of 10GWh per annum or greater.⁵¹¹ The changes sought to increase awareness and create incentives for very large customers to negotiate their own alternative retailer should a ROLR event occur, to reduce the financial burden on the designated ROLR.

The principal benefit of these changes was that it would likely reduce size of the customer load that is transferred to the designated ROLR as well as their energy purchase costs. Although under current arrangements the ROLR can charge 'fair and reasonable' terms and conditions to large customers, the ROLR could still face cash flow challenges if its energy purchase costs increase dramatically, and there is a delay before it can recover those costs. Furthermore, it is still required to provide credit support to AEMO in relation to the energy consumed by large customers.

The Commission notes that all large customers are currently able to arrange their own alternative retailer before a ROLR event occurs, on terms and conditions agreed by the customer and the alternative retailer. The benefit to a large customer of entering an agreement with an alternative retailer before a ROLR event occurs is that it could gain greater certainty of the terms and conditions under which it would be supplied, and by whom, if it became affected by a ROLR event.

507 For more information see <https://www.aemc.gov.au/rule-changes/retailer-distributor-credit-support-requirements>.

508 National Energy Retail Regulations, section 7. The definition of a large customer is based on a consumption threshold that varies between each region, ranging from 40MWh to 160MWh per annum for electricity, and 400GJ to 10,000GJ per annum for gas.

509 NERL, section 140(7).

510 NERL, sections 145 and 146.

511 Specifically, a new class of customer (very large customer) would need to be created, and a provision would need to be made for setting the very large customer consumption threshold in the National Energy Retail Regulations.

The Commission does not consider this recommendation remains fit for purpose. The Commission considers that the AER's existing criteria for ROLR designation can be utilised to reduce the size of the customer load that is transferred to the designated ROLR.

The other ROLR changes recommended within this report to the ROLR scheme should increase the ability of the AER to appoint multiple ROLR's and to encourage more retailers to register as ROLRs. This would give the AER the flexibility to assign the failed retailer's customers across registered RoLR's based on customer class and number. For example the AER could use the current designation criteria to split the small residential, small business and large business customers across three different RoLR's for each area in the NEM. This would reduce the size of additional load burden on individual designated RoLR's and reduce the risk of financial contagion.

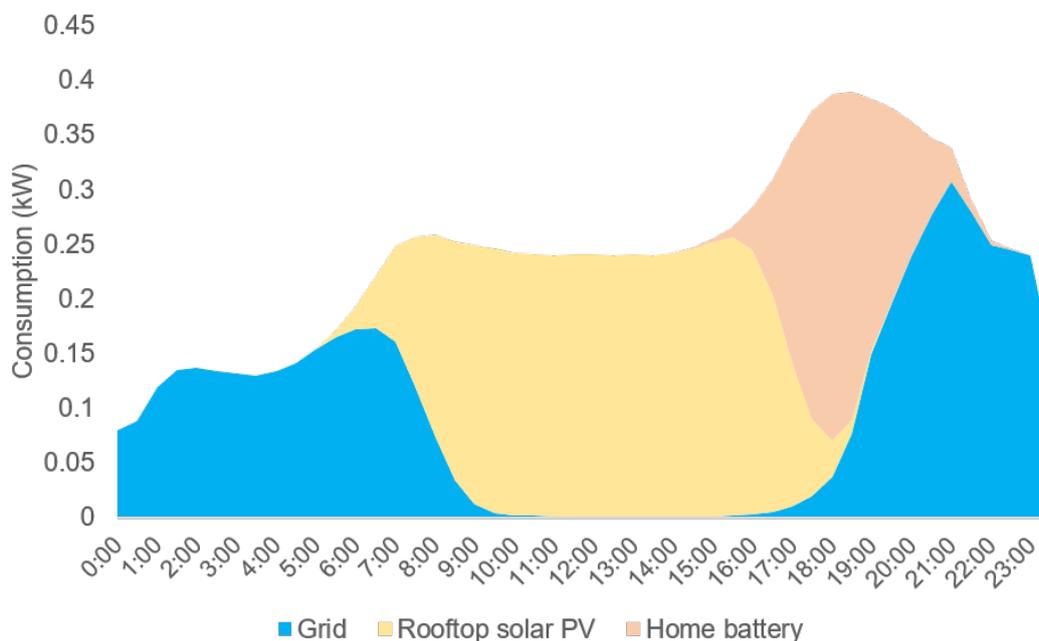
B CONSUMER PROTECTIONS IN AN EVOLVING MARKET: FURTHER DETAIL

B.1 A sophisticated customer in the future market

New tariff structures provide consumers with incentives to manage their usage, production and storage of energy and to utilise DER in response to price signals, which is likely to reduce total system costs in the long run.

This is demonstrated in the stylised example below, which is for a consumer with solar PV and a battery in addition to their grid connection. Before purchasing solar and a battery, the consumers' demand for electricity was met from the grid. Following the purchase of DER, the consumer's demand during sunlight hours is met by solar generation, and excess generation can be used to charge their battery or be exported 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 B.1 provides an example of these changes.

Figure B.1: Change in demand



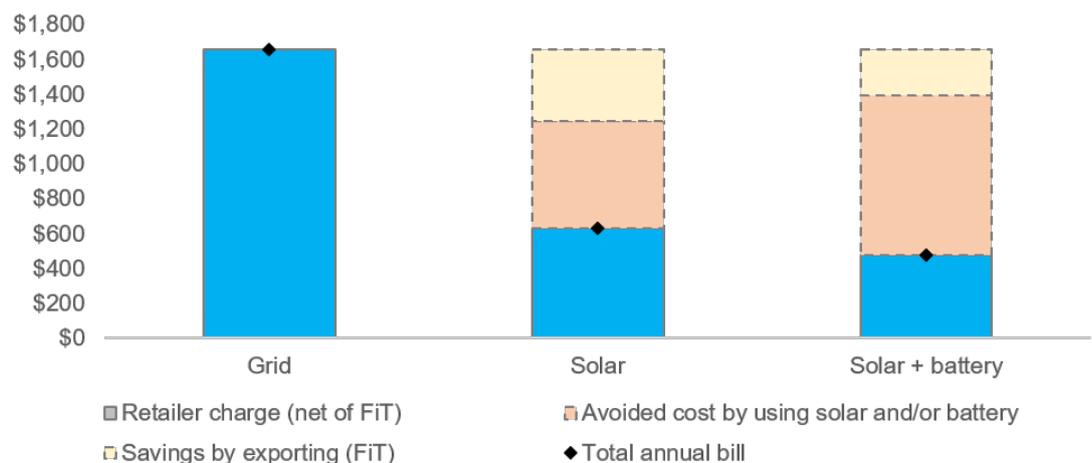
Source: AEMC simulation.

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

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 evening consumption (which is typically at a higher rate). Figure B.2 illustrates the potential savings of a specific consumption profile.

Figure B.2: Savings for consumers



Source: AEMC simulation. Assumptions: Tariff assumptions - AGL Time of Use tariffs; Hardware assumptions - solar panels 2kW and battery 4kWh.
Note: The Commission notes this would change on the basis of the consumer's profile, energy management and size of their solar PV and batteries.

B.2 Policy principles and exempt seller and customer related factors in the NERL

B.2.1 Principles (NERL, sections 111 and 114)

1. Divergence in regulatory arrangements: "regulatory arrangements for exempt sellers should not unnecessarily diverge from those applying to retailers".
2. Choice of retailer: "exempt customers should, as far as practicable, be afforded the right to a choice of retailer in the same way as comparable retail customers in the same jurisdiction have that right".
3. Access to customer protections: "exempt customers should, as far as practicable, not be denied customer protections afforded to retail customers under this Law and the Rules".

B.2.2 Exempt seller factors (NERL, section 115)

1. Core versus incidental business: "whether selling energy is or will be a core part of the exempt seller's business or incidental to that business".
2. Exempt seller characteristics: "whether the exempt seller's circumstances demonstrate specific characteristics that may warrant exemption".
3. Profit intentions: "whether the exempt seller is intending to profit from the exempt selling arrangement".

4. Amount of energy sold: “whether the amount of energy likely to be sold by the exempt seller is significant in relation to national energy markets”.
5. Appropriate obligations governing the applicant’s behaviour: “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”.
6. Costs and benefits analysis: “the likely cost of obtaining a retailer authorisation and of complying with this Law and Rules as a retailer compared to the likely benefits to the exempt customers of the exempt seller”.
7. Other relevant seller related matters: “any other seller related matter the AER considers relevant”.

B.2.3

Customer factors (NERL, 116)

1. Characteristics: “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”.
2. Access to appropriate rights and protections: “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”.
3. Other relevant customer related matters: “any other customer related matter the AER considers relevant”.

C HOW ENERGY CONSUMERS ARE PROTECTED

AUSTRALIAN ENERGY MARKET COMMISSION

HOW ENERGY CONSUMERS ARE PROTECTED

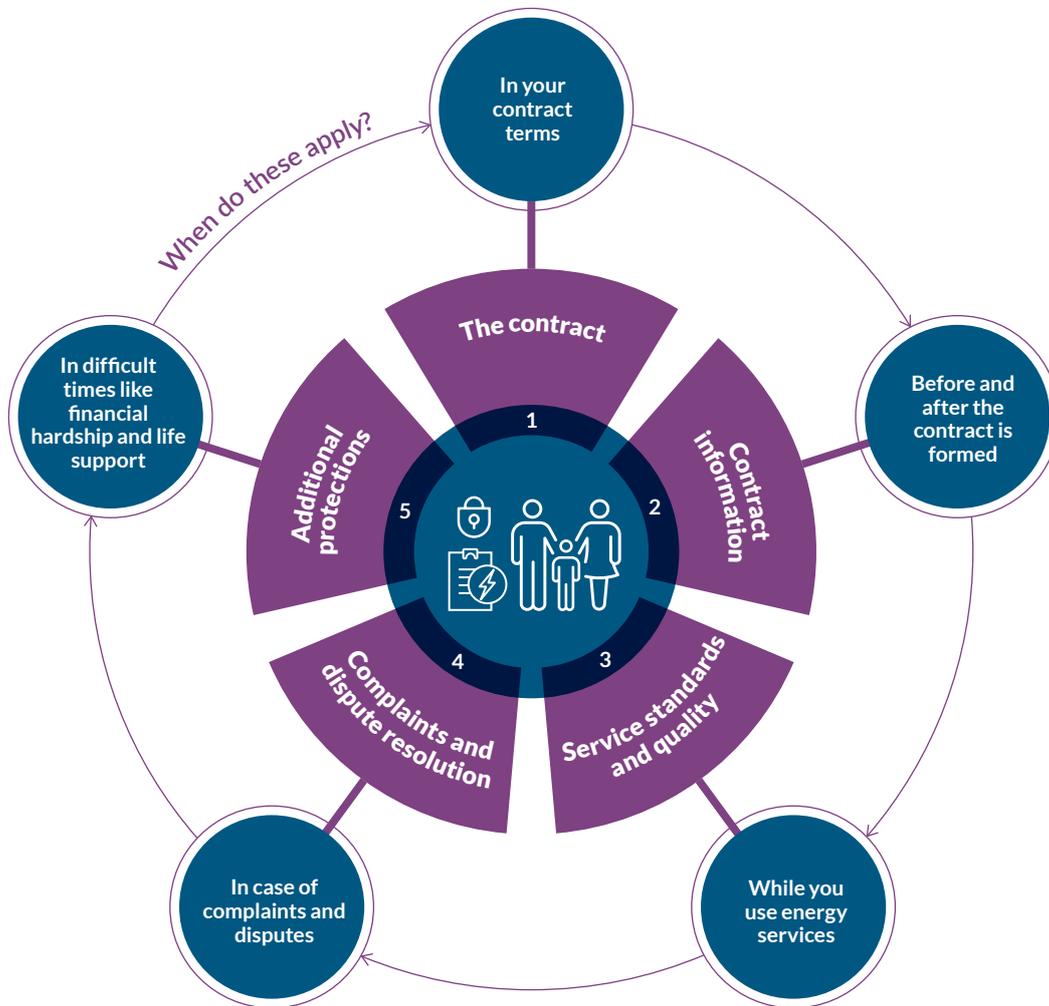
The AEMC is working on changes to make sure consumer protections are keeping pace with the restructuring power system.

We see big changes in the way electricity is supplied with increasing take-up of options like solar PV and batteries. New technology is spreading through the system and starting to get cheaper for households and businesses. Consumers have a very different place in this evolving market. More people are generating their own power through solar PV and selling locally produced electricity back into the grid.

The National Energy Customer Framework (NECF) is designed to complement Australian Consumer Law (ACL) by providing additional consumer protections for the supply of essential energy services. It works to strengthen consumers' rights to access energy on fair and reasonable terms.

This legal protections map has been produced as part of the AEMC's annual report on retail energy competition. It is a useful tool to explore how protections which apply to energy customers work together at all levels of government. It is used in our ongoing conversations with stakeholders, especially consumer representatives, to make sure families and businesses are receiving appropriate protections as the system changes.

The ACL and NECF have extensive consumer protection measures at each of these five stages:



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GENERAL PROTECTIONS	
<p>Unfair contract terms:</p> <ul style="list-style-type: none"> • Significant imbalance • Unnecessary protection • Detrimental to one party 	<p>Standard retail contracts</p>
	<p>Bill content: minimum information required</p>
	<p>Basis for bills: how retailers must bill customers</p>
	<p>Payment methods: what retailers must accept</p>
	<p>Pricing: guidelines to follow</p>
	<p>Complaints and dispute resolution: mechanisms available</p>
<p>Unfair contract terms are also those not considered transparent, which include terms:</p> <ul style="list-style-type: none"> • hidden in fine print/schedules • phrased in legalese • complex/technical • ambiguous/contradictory 	
ACL	NECF

SPECIFIC PROTECTIONS	
<p>Standard retail contract: additional protections</p>	<p>Market retail contract: additional protections</p>
<p>Frequency of bills: how often retailers must issue bills</p>	<p>Explicit informed consent</p>
<p>Payment date: setting the pay-by-date</p>	<p>Rights of withdrawal (cooling off period)</p>
<p>Allocation of payment: where retailers must first allocate payment</p>	<p>Termination notice & early termination charge</p>
<p>Final bill</p>	<p>Breach of contract or negligence & limits to indemnities</p>
<p>Pricing: applicable price, variation & information about variations</p>	<p>Prohibited discount practices</p>
NECF	NECF



AT A GLANCE

The ACL and NECF:

Put in place rules about how and when a company can advertise to you

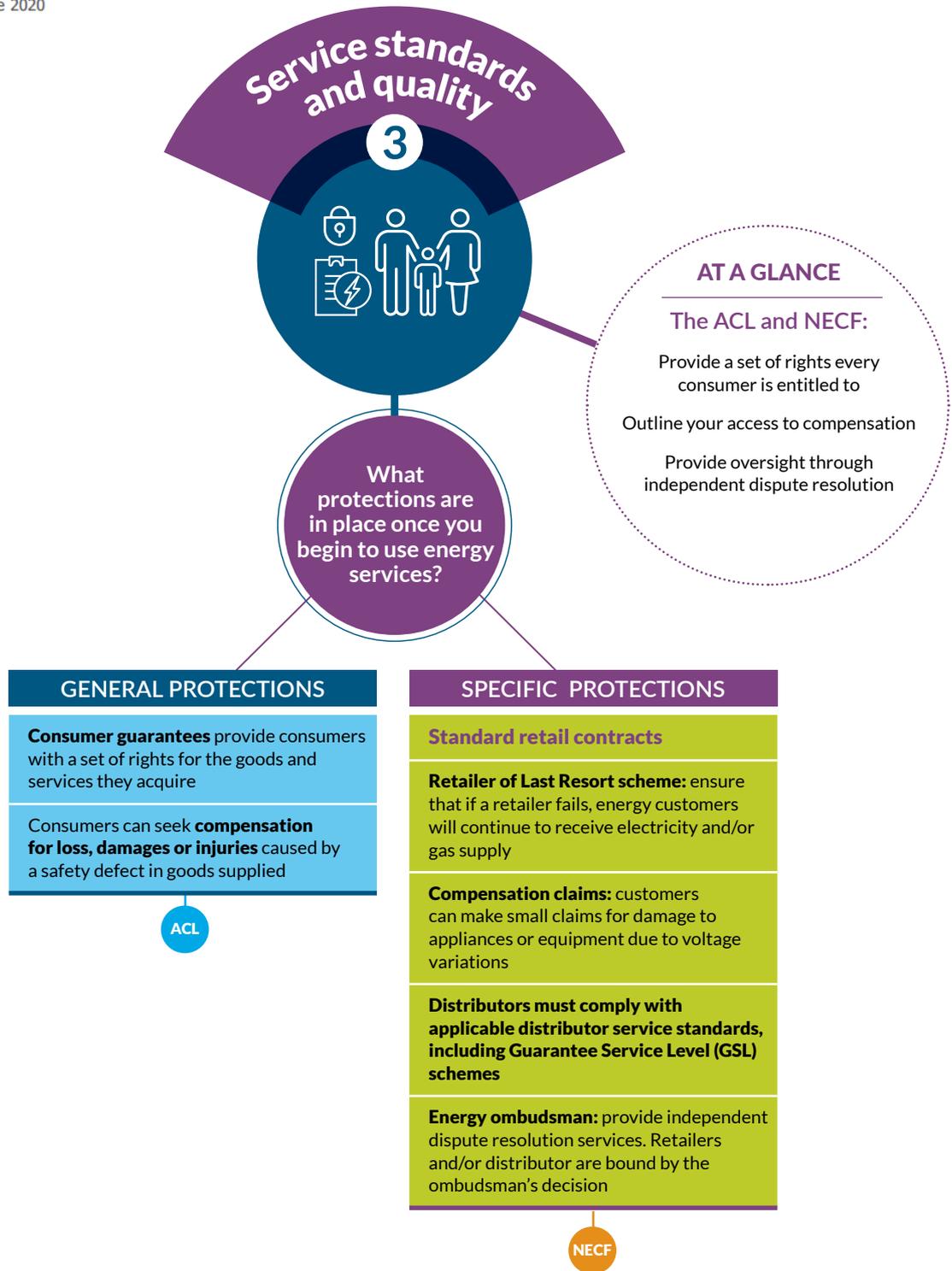
Help you understand what your retailer can and can't do

Ensure you get the right information before and after forming a contract

GENERAL PROTECTIONS	
<p>General consumer protections: to prohibit misleading, deceptive or unconscionable conduct</p> <p>Specific protections against unfair practices:</p> <ul style="list-style-type: none"> • False and misleading representations • Offering rebates, gifts prices that will not deliver what the consumer is expecting • Bait advertising • Referral selling 	<p>Standard retail contracts</p> <p>Pre-contractual information: that retailers and marketers must provide to small customers</p> <p>No contact list: retailers must not make contact with small customers who choose to be on the list</p> <p>Canvassing and advertising signs: retailers must comply with any signs at a person's premises</p>
ACL	NECF

SPECIFIC PROTECTIONS	
<p>Specific protections for standard retail contracts</p> <p>Declining a contract: a retailer cannot decline a contract if the customer complies with established pre-conditions</p> <p>Refusing to sell energy: a retailer cannot refuse to sell energy on the grounds of unpaid accounts</p>	<p>Specific protections for market retail contracts</p> <p>Pre-contractual information: ensuring retailers provide customers with information about:</p> <ul style="list-style-type: none"> • applicable prices, charges and benefits • start, duration and termination of the contract • electronic transactions • rights relating to withdrawal & complaints
NECF	NECF

ONCE THE CONTRACT IS FORMED (ADDITIONAL INFORMATION REQUIREMENTS)	
<p>General protections</p> <p>Historical billing data</p> <p>Bill review: a retailer must review a bill if requested by a customer</p> <p>Customers must be informed when contract is due to end</p> <p>Retailers must provide general information on their website</p> <p>After retailers get customers on transfer they must tell those customers they have started selling energy and the date when energy started to be sold to them</p> <p>New electricity meter deployment: retailer must inform customer who can elect not to have meter replaced</p> <p>Information that must be provided to energy customers when energy is interrupted</p>	<p>Specific protections for standard retail contracts</p> <p>Retailer must provide the customer with information about:</p> <ul style="list-style-type: none"> • standard retail contract and how copies can be obtained • rights and obligations • complaints and dispute resolution procedures • government funded energy charge rebates, concession or relief
NECF	NECF



Complaints and dispute resolution

4



What procedures are in place to honour these protections?

AT A GLANCE

The ACL and NECTF:

Outline the two mechanisms available for customers to make a complaint

Detail when a complaint should be made and how it's enforced

UNDER THE NECTF, ENERGY CUSTOMERS HAVE TWO MECHANISMS TO RESOLVE COMPLAINTS AND DISPUTES:

1. Internal dispute resolution procedures

Under the National Energy Retail Law (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 matters concerning the customer and a retailer or distributor.

Contact your retailer for questions about:

- getting connected to the network
- supply of electricity or gas arrangements to your home or business
- concerns with salespeople or how the service was sold to you (marketing)
- your rights in relation to cancelling or varying a contract (retailer's obligations under your energy contract)
- new energy contracts
- billing issues

Contact your distributor for questions about:

- your electricity and/or gas meters
- power lines and gas pipelines connecting your property to the network
- power or gas outages
- problems with supply quality, such as low frequency (for example, when your lights dim).

NECF

2. Energy Ombudsman schemes

The NECTF provides certain circumstances where the customer can initiate a dispute or submit a complaint to the retailer or distributor, under their standard complaints and dispute resolution procedures, or to the relevant energy ombudsman.

If you have difficulty resolving a problem directly with your energy provider or distributor, you can contact your energy ombudsman.

Common issues involve:

- Connection or disconnection issues
- Marketing or transfers
- Electricity outages
- High bills and billing disputes
- Changes in your contract
- Metering

When can a customer initiate a dispute or submit a complaint directly?

- energy marketing activity
- retailer's obligations before and after a customer retail contract is formed
- standard connection contracts and standard arrangements
- negotiated connection contracts
- a distributor's decision under the small compensation regime

NECF

COMPLAINTS AND DISPUTE RESOLUTION UNDER THE ACL

Consumers who are unable to resolve issues directly with traders are encouraged to bring complaints 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 (e.g. State consumer affairs or Fair trading body).

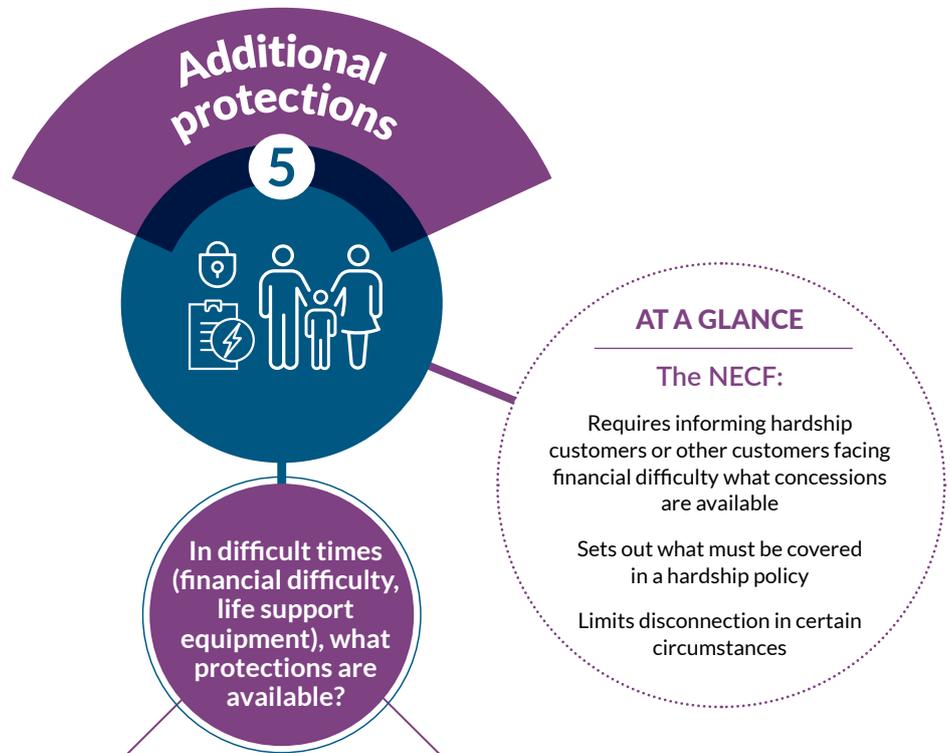
Aside from compliance and enforcement by the ACL regulators, the ACL creates private rights that consumers can enforce through Commonwealth, state and territory courts and tribunals.

The ACL is enforced by courts and tribunals in each jurisdiction subject to the specific rules that apply to enforcement processes, courts and tribunals in each state and territory jurisdiction.

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.

ACL



GENERAL PROTECTIONS	
Must provide information about rebates, concessions or relief schemes	Standard retail contracts
Shortened collection cycles: may be applied, unless customer experiencing payment difficulties	Bill content: Minimum information required
Payment plans for residential customers in hardship	Basis for bills: how retailers must bill customers
Debt recovery limitations	Payment methods: what retailers must accept
	Pricing: guidelines to follow
	Complaints and dispute resolution: mechanisms available
	NECF
General protections on disconnection and reconnection	
Planned interruptions & rules for de-energising customers' premises	
	NECF

ADDITIONAL PROTECTIONS	
Additional protections for hardship customers	Additional protections on life support equipment
Hardship policy for residential customers: policy and any variation must be approved by the AER & published on retailer's website	Explicit consent for planned interruption
Obligation to inform hardship customers of hardship policy	Limitations for disconnection
Disconnection as last resort option	Registration of customer with life support equipment
Contract terms have no effect if inconsistent with hardship policy	Requirements for medical confirmation
Centrepay as payment option	
Waiver of late payment fee	
	NECF