IPART Independent Pricing and Regulatory Tribunal | NSW

Monitoring the NSW electricity retail market 2020-21

Final Report

November 2021

Energy »

Tribunal Members

The Tribunal members for this review are:

Ms Carmel Donnelly, Chair
Ms Deborah Cope
Ms Sandra Gamble

Enquiries regarding this document should be directed to a staff member:

Chris Ihm (02) 9113 7736

Regina Choi (02) 9019 1942

The Independent Pricing and Regulatory Tribunal (IPART)

IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from IPART's website.

Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders, past, present and emerging.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

Executive Summary

The Australian energy markets will be transformed over the coming decade. As coal fired power stations are retired as they reach the end of their asset lives, the penetration of renewable energy sources will continue to grow. This will require changes to how the energy systems work, and how households engage with the energy market.

IPART is required to report annually on the performance and competitiveness of the retail energy markets. This report provides our findings on how competition has developed to date, and the new opportunities that will arise from the energy market transformation.

NSW is transitioning to renewable energy

In 2020, more than 20% of electricity in NSW was generated from renewable sources,[1] and renewables made up around 40%[a] of the 60 GW of installed generation capacity in NSW.[2] The NSW Electricity Infrastructure Roadmap is forecast to deliver an additional 12 GW of solar, wind and dispatchable storage by 2030 as coal fired generators are retired.[3] Under this roadmap, the NSW Government will enter into long term supply agreements with generators and battery providers in new renewable energy zones. At a national level, the Energy Security Board (ESB) has also considered mechanisms to ensure demand can be met.

New investments in renewable generation and storage will help ensure that our energy remains secure and affordable. They will also be key to reducing carbon emissions - close to 40% of NSW's emissions currently comes from the electricity generation sector.[4] The NSW Government is targeting 50% emissions reductions on 2005 levels by 2030, and net zero by 2050.[5]

Greater household engagement will help manage supply and demand

In 2021, wind and solar supplied around 50% of demand in the National Electricity Market (NEM) on certain days. Within the next five years, there are times when energy from these sources is anticipated to meet 100% of demand.[6] This will fundamentally change how the energy system operates. At times, there could be more electricity being generated from renewable sources than the demand for this electricity. It could also mean large momentary fluctuations of supply – for example, when clouds pass overhead. In addition, frequency, voltage, and system strength – which are currently provided by coal and gas generators – will need to be provided in other ways.[7]

[a] Including hydro generation.

Future advancements in inverter technology should be able to address many of these challenges.[8] Households will be part of the solution. Household batteries could balance out these fluctuations by storing electricity at times of excess supply and discharging when additional supply is required. Different prices at different times of the day would signal to customers when to use more or less electricity.[9] For example, low prices in the middle of the day would encourage people to use more when there is plenty of electricity generated from solar systems. Retailers could reward customers for using less electricity during peak periods.

New products are continuing to emerge

As retailers and networks realise operational value from these solutions, there will be more opportunities for energy retailers to provide customers with different energy offerings. In the same way that data and smart phones changed how telecommunications services are offered to customers, batteries and electric vehicles will also result in new bundling and pricing structures as the costs of these technologies fall.

The reduction in the costs of solar systems has in part driven the recent entry of new retailers. 16 new retailers have entered the market in the past 2 years alone (Table 1). Several of these are bundling solar systems in customers' retail contracts, for example, offering solar systems with no upfront costs, and instead incorporating the system costs into retail charges. Others are trialling new technologies such virtual power plants that automatically feed electricity in and out of home batteries depending on the wholesale price at the time.

It is important to strike the right balance between consumer protections and encouraging innovation in the market. The ESB has indicated that the existing consumer protections provided under the National Energy Customer Framework may need to be reviewed as new products and service providers emerge, to ensure that the framework remains fit for purpose. Additional measures could include longer cooling-off periods to allow consumers more opportunity to decide if the energy product is right for them.

There are now 40 retailers competing in the NSW electricity market. The small retailers have gained 19% of market share from the 3 largest retailers (Origin Energy, EnergyAustralia, and AGL).

Table 1 Indicators of competition

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Market structure								
Number of retailers	13	18	22	22	24	25	33	40
Market share of small retailers	4%	7%	10%	12%	14%	17%	18%	19%
Customer engagement								
% of customers on market offers	60%	63%	69%	74%	78%	83%	87%	88%
Customer switching rates	NA	15%	16%	17%	19%	21%	18%	20%

Note: 2020-21 shows a net increase of 7 retailers. 8 new retailers entered the market and two existing retailers merged.

The influx of renewables has reduced electricity retail prices

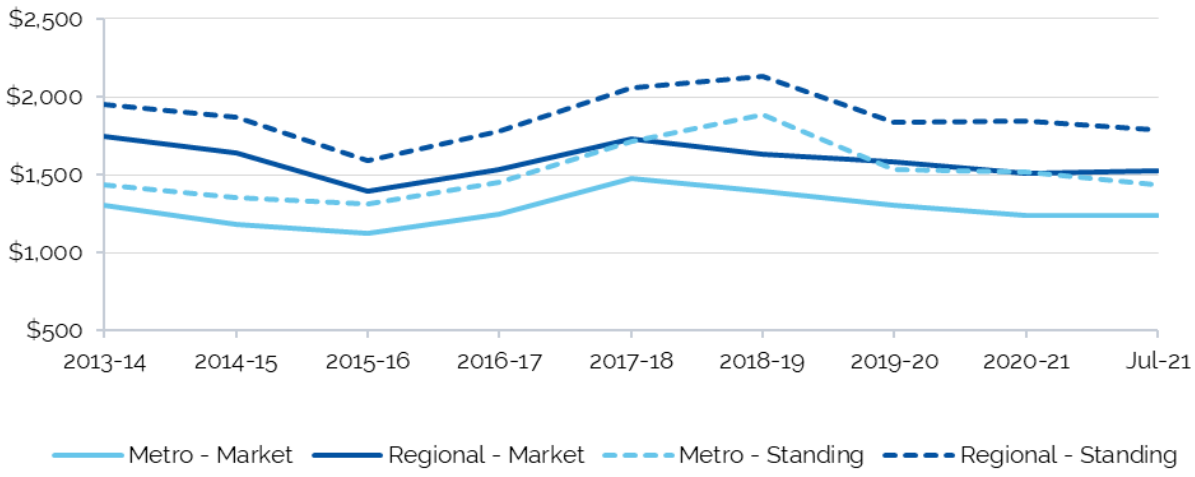
The growth in household solar systems has driven down wholesale prices in the middle of the day, leading to lower average wholesale and retail prices over the past two years. Since June 2020, retail prices have fallen by around 5%.

In combination with falling wholesale costs, the introduction of the 'default market offer' ('DMO') in 2019-20 has also reduced prices. This is a cap set by the Australian Energy Regulator (AER) on 'standing offers' - which are the offers for customers if they have not actively shopped around.

Figure 1 shows that prices have fluctuated since IPART started monitoring prices in 2014. Prices are now lower than 2013-14 levels. In real terms (once the impact of inflation has been removed), prices have fallen by around 10% to 20%. However, prices may increase again with the closure of the Liddell coal fired power station in 2022-2023, which currently supplies around 12% of NSW's electricity.[10] A key objective of the NSW roadmap is to smooth price volatility as more coal fired power stations close, by ensuring the timely replacement of this capacity.

Figure 1 also shows that prices in regional areas remain around 25% higher than metro areas due to higher network costs, but this gap has narrowed since 2013-14.

Figure 1 Annual residential electricity bills for median offers by offer type and region (based on 4,125 kWh of electricity purchased, including GST, nominal)



Note: The regional prices are for the Essential Energy network, while the metro prices are a median of all offers in the Ausgrid and Endeavour Energy networks.

Source: Offers available on EnergyMadeEasy.

Customers can save by shopping around

While standing offer prices have reduced significantly since 2019-20, Figure 1 shows that customers can still save around 20% off these prices by shopping around for a 'market offer'. Around 20% of customers switched retailers last year, which is up on the year before. 88% of residential customers, and 78% of business customers are on market offers (Table 1). However, some market customers are likely to be paying prices similar to standing offers, and so would benefit from further engaging the market.

There has been an increase in reported satisfaction with electricity and gas retail service over 2020-21, and the number of electricity-related complaints to the Energy & Water Ombudsman NSW (EWON) were lower compared to previous years.

Gas prices offered to most small customers have decreased

Most small customers in NSW (about 95%) are located in Jemena's network and the median market price offered in this region decreased by 6% over 2020-21.

Overall, we observed a general trend of competition improving in the retail gas market. The market share of smaller retailers has generally increased, more customers are now on market offers and are satisfied with their gas service.

COVID-19 has generally been managed well by retailers and regulators

While prices are down, customers may be paying more for their energy overall due to higher consumption as a result of COVID-19 lockdowns. In addition, the lockdowns have caused a significant number of households to lose income during the pandemic.

Over 2020-21, data reported to the AER shows some increase in levels of residential electricity debt on hardship programs. As a result, retailers have experienced higher levels of bad debt. However, customers have not been disconnected at higher rates, complaints have fallen, and retailers have not left the market. This has been in part due to the AER's statement of expectations which places a moratorium on disconnections while stay at home orders are in force.

As households recover from COVID over the next year, regulators should continue to ensure that the vulnerable customers continue to have access to reasonably priced electricity.

Findings

1. Retailers are increasingly competing for customers: 19
   - there are now 40 retailers in the market, which is around three times more than in 2013-14 when we first started monitoring the market
   - retailers compete for customers on price – the lowest offers in the market are around 35% lower than the highest offers.
   - a range of innovative offers and non-price incentives are being offered to further attract customers.

2. Customers continue to engage in the market in 2020-21: 23
   - Switching rates increased from 18% to 20%
   - The proportion of customers on market offers is now 89% for residential customers (up from 88%), and 78% for business customers (unchanged).

3. There has been an increase in reported satisfaction with electricity retail service over 2020-21. 27

4. The number of electricity-related complaints to the Energy & Water Ombudsman NSW (EWON) was lower compared to previous years. 27

5. The market concentration was steady in 2020-21. The combined market share of the "Big 3" retailers (Origin Energy, EnergyAustralia and AGL) was maintained as AGL purchased Amaysim/Click. In 2020-21 30
   - 81% of customers are supplied by the "Big 3"
   - 97% of customers are supplied by 10 retailers. The remaining 3% of the market is shared between 30 retailers.

6. Prices in the market trended down in 2020-21. 42
   - The median market offer fell by around 5%.
   - The median standing offer was relatively unchanged.

7. Price changes broadly reflected the underlying changes in costs in 2020-21. A detailed review of prices and profit margins is not required. 42

8. IPART began monitoring the market when competition was found to be sufficiently competitive to protect customers. Prices have fallen in real terms since IPART began our monitoring role: 42
   - In the Essential network, market prices have fallen by 22% in real terms, and standing offer prices have fallen by 18% since 2013-14.
   - In the Ausgrid and Endeavour networks, market prices have fallen by around 15% in real terms, and standing offers are 11% lower compared to 2013-14.

9. Some customers could be better off under time-of-use offers depending on the offer chosen and when they use electricity throughout the day. Customers who use less electricity in the peak periods can save more. 46

10. Median standing offer prices fell by between 9 and 19% when the default market offer ("DMO") was introduced in 2019-20. 48

11. The spread of offers increased in the market in 2020-21. The average difference between a retailers' lowest and standing offers was around 20% up from 16% in the previous year. 49

12. Bills for residential rebate customers increased by up to 3% on average between June and December in 2020-21 compared to the same period in the previous year. This was less than the increase in usage, which was up to 7% on average. 64

Contents

Executive Summary iii

NSW is transitioning to renewable energy iii
Greater household engagement will help manage supply and demand iii
New products are continuing to emerge iv
The influx of renewables has reduced electricity retail prices v
Customers can save by shopping around vi
Gas prices offered to most small customers have decreased vi
COVID-19 has generally been managed well by retailers and regulators vi

1 Introduction 1

1.1 What are the benefits of competition? 1
1.2 Future of the electricity market 3

2 Scope and timetable 7

2.1 What do we report on? 7
2.2 Purpose of our review 8
2.3 Review timetable 9

3 How retailers are competing 10

3.1 Retailers compete on price 11
3.2 Non-price incentives 12
3.3 Offers for solar panels with and without batteries 13
3.4 Offers to help customers manage their energy usage and bills 15
3.5 Offers for electric vehicles 16
3.6 Smart meter uptake is increasing 17

4 How customers are responding 20

4.1 Increasing levels of customer engagement 20
4.2 Comparing innovative offers 23
4.3 Consumer sentiment and confidence has improved 24

5 How the market structure is changing 28

5.1 The growth of new retailers has been slow 28
5.2 Barriers to expanding market share 31

6 Price outcomes 33

6.1 Overview of price trends 33
6.2 Prices have fallen by around 5% since June 2020 34
6.3 The recent price reductions reflect falling wholesale costs 37
6.4 Prices have fallen since IPART has been monitoring prices 40

7 Prices for time-of-use offers 43

7.1 A typical customer could be better off under time-of-use market offers 44
7.2 Customers who use less electricity in peak periods save more 45

8 Impact of the default market offer (DMO) 47

8.1 Standing offer prices have fallen 47
8.2 The spread of offers narrowed in 2019-20, before increasing 48
8.3 Impact on customer engagement and innovation 50

8.4 Mixed views on whether the DMO is at the right level 51

9 Prices for customers in embedded networks 53

9.1 Embedded networks could negotiate or seek better electricity offers 54
9.2 Improved customer protections are needed for embedded network customers 56
9.3 NSW Government energy assistance measures extended to embedded network customers 59

10 Impacts of COVID-19 60

10.1 Residential bills have increased 60
10.2 Support in response to COVID-19 64
10.3 Outcomes for vulnerable customers 66
10.4 Impact on retailers 68

A List of retailers in the market 70

B Median market offers and tariffs 72

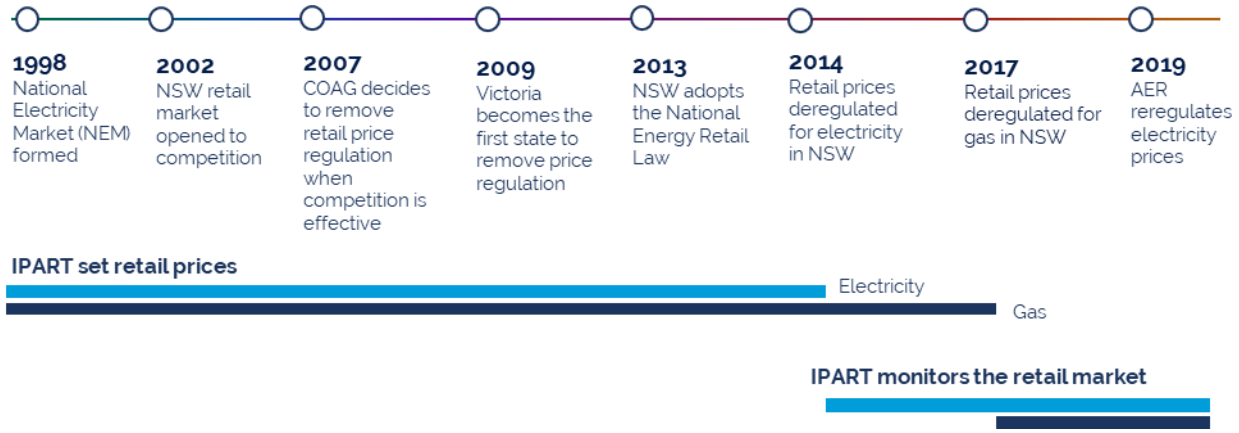
C Prices offered by retailers for GreenPower 73

D Range of offers in each network area 76

1 Introduction

The NSW Government opened the electricity and gas retail markets to competition in 2002.[11] Prior to this, there was a single government-owned supplier in each network area, that provided both distribution and retailing services.

While competition was developing, IPART continued to set retail prices for the incumbent suppliers. Retail price regulation was the removed from July 2014 for electricity[12] and July 2017 for gas[13], when competition was found to be sufficiently developed.[14] IPART has since been required to monitor competition in these markets.[15]



While competition should deliver better outcomes for customers, increasing underlying costs can still lead to higher prices. For example, in the period since competition was first introduced, the regulated network costs more than doubled between 2008 and 2014.[16] The Australian Energy Regulator (AER) significantly reduced the allowed revenues for networks in 2015[17], and network costs have since stabilised.[a]

More recently, wholesale costs have been volatile as the generation mix has started to change. The focus of future reform has now shifted to ensuring there is investment in new generation and storage, so that these power sources are responsive to fluctuations in demand and supply throughout the day, and that they can provide the system strength and voltage required.

1.1 What are the benefits of competition?

Retail electricity competition is not an end in itself. Competition was introduced into the energy retail markets to drive down bills for customers in the longer term. Without competition, there are limited incentives for businesses to become more efficient over time.

[a] Since 2015-16, network costs have fallen by an average of 2% per year for Ausgrid customers, 1% for Endeavour customers, and increased by an average of 2% a year for Essential customers. These changes are based on network prices for an average residential customer on an anytime tariff purchasing 4,215 kWh per year.

In a competitive market, business will need to find new ways of doing things to gain customers – either by becoming more efficient to reduce prices, or by offering a better product or service. If a business increases its prices above what it costs to supply the service, then they will be outcompeted and lose customers.

1.1.1 There should be cost reductions over the long term

There are some costs to competition. For example, businesses need to spend money on marketing to attract customers. In the energy market, systems needed to be set up to transfer customers from one retailer to another. However, these costs are outweighed by the continual pressure on retailers to reduce their key cost drivers. This means buying wholesale energy efficiently to avoid exposure to high price spikes, or finding new ways to drive down these costs – like rewarding customers to reduce energy usage when wholesale prices are high, or selling electricity from household batteries back into the market at these times.

1.1.2 Pricing differences can accelerate competition

As retailers compete with each other, a range of prices will emerge in the market. This reflects the variation in service and product offerings, and the different price strategies retailers use to recover their costs.

A common strategy has been for retailers to charge higher prices to customers who are less price sensitive – recovering more of their costs from these customers. This has been called a "loyalty tax." Many people consider that this pricing strategy is unfair and inappropriate for an essential service where there has traditionally been little product differentiation.

Differences between prices provides an incentive for customers to shop around because they can make savings. As retailers attempt to outcompete each other for these customers, they should become more efficient and the quality of services and products should increase. Our recommendations in previous reviews have focused on measures that would help customers engage effectively and regularly in the market to ensure they can access the best price.

In 2019-20, the AER re-introduced a cap on the prices that retailers can charge. This is called the "default market offer" or DMO.[b] This was intended to balance the objectives of protecting some customers from very high prices, and providing an incentive for customers and retailers to engage in the market to drive better outcomes over the longer term. As a result of the DMO, the gap between the highest and lowest prices has narrowed. We discuss the DMO in detail in Chapter 8.

[b] The DMO is a maximum bill for standing offers for a given level of consumption. Retailers must structure their prices so that they do not exceed the DMO at that level of consumption.

1.1.3 Strong protections are required for vulnerable customers

Retailers may be inclined to stop supplying customers who are not keeping up with their bills, because they need to manage their costs to remain competitive. However, energy is different from other products because it is an essential service. It has the potential to impact the health, wellbeing and financial sustainability of households. Therefore, strong customer protections are needed to ensure that customers are able to connect with a retailer, and to provide customers in financial difficulties with different options for paying their bills to stay connected.

In addition to the Australian Consumer Law, which applies to all businesses, energy retailers must comply with the National Energy Retail Law and Rules. These are energy-specific consumer protections and more detailed provisions regulating the rights and obligations of retailers and consumers in retailer energy markets.

Other support measures have also been put in place to address the impacts of COVID-19. These are discussed further in Chapter 10.

In any market, there will continue to be vulnerable customers even with additional protections. Governments need to provide targeted assistance to these customers through the social welfare system.

1.2 Future of the electricity market

Over time, retail competition should help drive the right mix of generation in the wholesale market, as retailers compete to serve their customers' demand at the lowest possible cost. However, uncertainty around energy and climate policy has reduced investment in the wholesale market. In addition, the changing mix of generation will fundamentally change how the energy system operates.

Various expert market bodies have been undertaking significant work in reforming the electricity market so that it is able to meet the changing needs of the system and customers. The Energy Security Board (ESB) has delivered its final report for the redesign of the national electricity market to the Energy National Cabinet Reform Committee.

The NSW Government has also established an Electricity Infrastructure Roadmap to modernise the NSW electricity system as it replaces its ageing coal fired power stations with renewable generation.

We provide a high-level overview on these significant developments below.

1.2.1 Energy Security Board's Post-2025 market design

The ESB was tasked to advise on changes required to the NEM as it transitions from largely coal fired generation to more variable renewable generation. The main drivers of this transition are:

- the dramatic and continued increase in supply of renewable energy – driven by government policy (renewable targets) and community concerns about the impact of coal fired generation on carbon emissions
- the current thermal generation fleet ageing and becoming commercially unviable compared to renewables which have zero fuel costs and low operational costs (technology/capital costs are also decreasing)
- opportunities to unlock value from all the increased distributed energy resources ("DER") investments that customers have made and reward flexible demand.[18]

To accommodate a future market where electricity will mostly be sourced from renewable generation, the ESB has recommended a package of interrelated reforms. The main focus for the retail electricity market are the reforms related to the integration of DER and flexible demand which are shown in the ESB's recommended DER Implementation Plan (Figure 1.1). We provide further detail below.

Integration of distributed energy resources and rewarding flexible demand

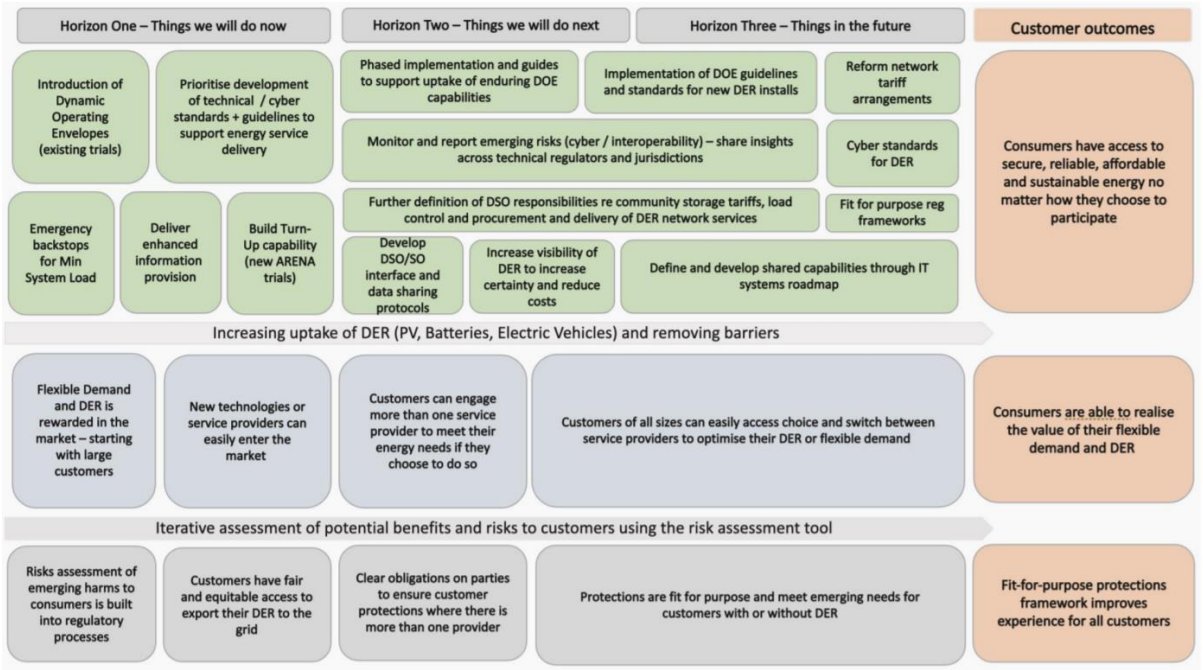
The rapid uptake of solar panels means that aggregated DER can provide a competitive alternative to large scale generation and potentially deliver low-cost system services. Further, services provided by DER and flexible demand can reduce the need for investment in networks and benefit all customers – even those without DER assets. In its reforms, the ESB also aims to reward customers for their flexible demand (through products and services that innovation offers) and manage risks to customers through the right protections, no matter how customers choose to use or receive energy.

Some of the key reforms recommended by the ESB are:

- Flexible trading arrangements – To enable customers to choose different suppliers at the same premises for different types of services. For example, one supplier to manage solar panels, batteries, and electric vehicles, and another supplier for general purchases from the grid. The current framework generally does not support customers easily engaging with more than one energy service provider at their property and some networks do not allow small customers to have a second connection point.

- Trader services – Creating a single registration category for all entities who want to engage in the wholesale energy and energy services markets to make it easier for participants to provide new services to customers (for example, rewarding customers for their flexible demand). Currently, depending on whether participants want to trade energy or FCAS[c] or both, it would have to register in multiple categories to participate in the different markets. This increases registration costs for service providers and is potentially a barrier to new participants entering new markets to provide different services.
- Scheduled lite – To provide greater participation of non-scheduled resources in dispatch so consumers can obtain more value from their DER assets. Aggregators or local community batteries can give information on decentralised generation size, availability and operation to AEMO so it can safely and efficiently ensure that supply and demand is balanced. This can provide more accurate scheduling for all participants and possibly additional revenue streams for responsive resources.[19]
- Ensuring consumer protections are fit-for-purpose for new business models - Businesses selling services that allow customers to optimise their energy use, provide demand flexibility and use of DER assets, but do not involve the sale of energy to the customer's premise, are not currently within the scope of the National Energy Consumer Framework (customers are still covered by Australian Consumer Law). Arrangements will be reviewed to understand what risks consumers may face, so that the regulations strike the right balance between consumer protections and encouraging innovation in the market.

Figure 1.1 DER Implementation Plan



Source: ESB, Post 2025 Market Design Final Report (Part B), July 2021, p 73.

[c] Frequency control ancillary services (provides either a fast injection or reduction of energy to balance supply and demand). AEMO has traditionally purchased such services from generators such as coal and gas plants.

1.2.2 NSW Electricity Infrastructure Roadmap

The NSW Government is investing in a co-ordinated portfolio of renewable energy zones, pumped hydro, and transmission infrastructure to meet the long-term energy needs of NSW as its ageing coal fired power stations are retired. Its roadmap is intended to reduce NSW electricity emissions by 90 million tonnes by 2030 and support NSW to deliver on its net zero by 2050 ambition.[20]

Renewable energy zones will combine renewable energy generation such as wind and solar, and storage such as batteries to deliver electricity. Development on the first renewable energy zone in Central-West Orana is already underway and is expected to provide enough electricity to power 1.4 million homes by the mid-2020s (about 3 GW). The other renewable energy zones will be in the New England, South-West, Hunter-Central Coast and Illawarra regions.[21]

To support pumped hydro[d], the NSW Government has also established a $50 million grants program which will assist project developers with the cost of early stage detailed feasibility studies. The aim of the program is to establish a pipeline of up to 3 GW of pumped hydro projects. Applications for grants have closed and are expected to be awarded to applicants by end of 2021. Projects are required to be operational by end of 2029.[22]

[d] Water is pumped into an upper reservoir using cheaper energy when demand is low or there is an excess of renewable energy (e.g. wind or solar during the middle of the day), and then when electricity is required the water is released to the lower reservoir through a turbine to generate electricity. The water stored in the upper reservoir, awaiting its use, is essential a battery. Pumped hydro is an important part of the energy mix and can balance variable renewable generation such as wind and solar.

2 Scope and timetable

Since energy prices were deregulated, IPART has reported annually on the performance and competitiveness of the retail electricity and gas markets in NSW. This report outlines our findings on the NSW retail electricity market during 2020-21.

Each year we must report on the performance and competitiveness of the NSW energy retail markets

Our role is set out in section 234A of the National Energy Retail Law (NSW)

We are limited in the information we can consider

2.1 What do we report on?

Our market monitoring role is set out in the National Energy Retail Law (NSW).[23] We must consider:

- the extent to which retailers are competing to attract and retain small customers (Chapter 3)
- the participation of small customers in each market (Chapter 4)
- any barriers to entry to or exit from, or expansion, in each market (Chapters 3 and 5)
- whether price movements and price and product diversity in each market are consistent with a competitive market (Chapters 3 and 6)
- prices of electricity for small customers in regional areas (Chapter 6, Chapter 10).

We will consider these factors in combination to assess whether competition is protecting customers in NSW.

We must also report on:

- whether there are any actions needed to improve the competitiveness of the market, if we are of the opinion that it is required[24]
- whether a detailed review of retail prices and profit margins in each market is required (discussed in Chapter 6).[25]

We can also report on any other relevant matter.[26] As part of our review we have considered:

- energy reform both in NSW and nationally, and what this means for retail competition and climate change (Chapter 1)
- pricing for customers in embedded networks (Chapter 9)
- the impact of COVID on the energy customers and energy markets (Chapter 10)

For the gas market, we have discussed our findings in a separate Information Paper.

2.2 Purpose of our review

For almost 10 years, the retail markets in most states have been regulated under the same National Energy Retail Rules. They are regulated and monitored by cross-jurisdictional bodies, including the ACCC and the AER (Table 2.1). Given this broader oversight of the markets, the purpose of our review is to report on the available information and price trends most relevant to NSW.

The legislation limits the information we can consider in our role to:

- information provided by the AEMC and the AER
- any publicly available information
- information provided by a retailer with particulars of the number of market offer customers of the retailer, the market offer prices of those customers, the number of customers on each standing offer price offered by the retailer that has been publicly advertised, and those standing offer prices.[27]

In addition to our annual market monitoring reviews, the legislation also provides for the Minister to ask IPART to undertake special reviews in connection with the energy market. For these reviews, we are not limited in the information that we can consider.[28]

Table 2.1 Ongoing energy retail market monitoring reviews

Regulator	Scope of the review	Fuel	Role commenced	Reporting
IPART	Competition and performance – NSW	Electricity and gas	2014-15 for electricity, 2017-18 for gas	Final Report in November each year
EWON	Customer complaints	Electricity and gas		Quarterly
AEMC	Competition – NEM	Electricity and gas	2014	June each year. The AEMC did not release a report in 2021.
AEMC	Price trends – NEM	Electricity only	2011	December each year
AER	State of the market – NEM	Electricity and gas	2007	July each year
AER	Annual retail markets report – NEM	Electricity and gas	2013	November each year
ACCC	Prices, profits and margins for retail and wholesale sectors, cost changes and drivers, and barriers to entry - NEM	Electricity only	2019	Every six months until 2025.

2.3 Review timetable

We commenced this review in July this year and met with PIAC and several retailers to discuss their views of the retail electricity market in NSW. In preparing our Final Report, we also considered the three submissions received in response to our Draft Report.

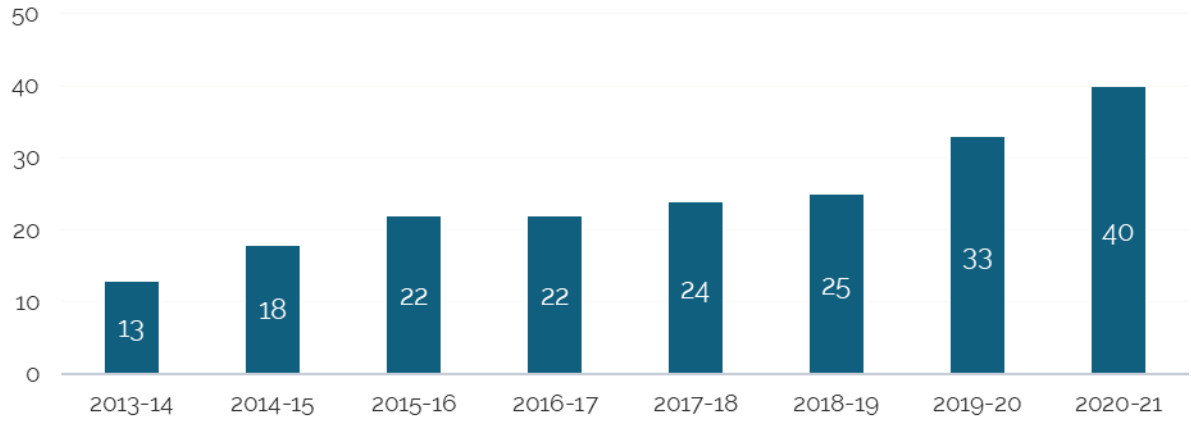
3 How retailers are competing

There has been a significant increase in the number of retailers entering the market over the past two years. 8 new retailers entered the market in 2020-21,[e] bringing the total number of retailers to 40 by June 2021[f]. This is more than three times the number of retailers compared to 2013-14 when we first started monitoring the market (Figure 3.1). A full list of retailers, the areas and customer types they service, and the types of offers available is provided in Appendix A.

The continuous growth in the number of businesses indicates that it is relatively easy for businesses to set up in NSW. We would expect this to put pressure on all businesses to reduce costs, become more efficient, provide good customer service, and offer products that better meet customers' needs. If they do not, they will lose market share to those businesses that can provide more value. Inefficient retailers would drop out of the market over time.

As more retailers have entered the market, we have seen the range of innovative offers increase. This chapter discusses the different ways that the retailers competed in the electricity market in 2020-21, including the different types of products that were being offered.

Figure 3.1 Number of retailers in NSW



Note: 2020-21 shows a net increase of 7 retailers. 8 new retailers entered the market and two existing retailers merged.

Source: IPART analysis, EnergyMadeEasy data 2013-14 to 2020-21

[e] Based on the retailers with active offers on EnergyMadeEasy.

[f] There are other retailers supplying customers but were not offering contracts to new customers in May 2021. There are also providers that only supply electricity to specific sites (known as "embedded networks").

3.1 Retailers compete on price

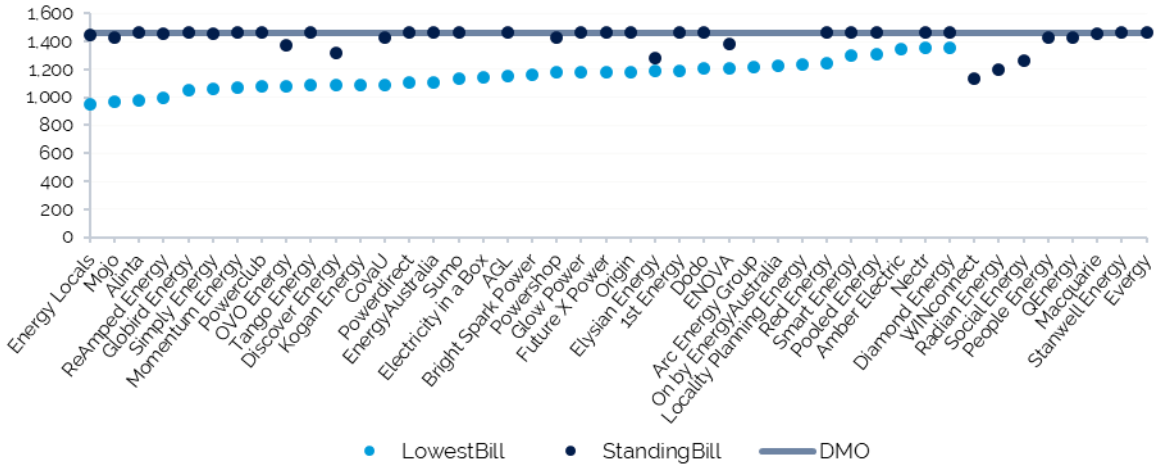
Retailers compete to offer customers the lowest prices. In 2020-21, the lowest prices in the market were around 35% lower than the highest prices.[9]

Figure 3.2 shows the range of customers' bills for each retailer's lowest offer and standing offer as at June 2021 in the Ausgrid network area. We have calculated bills for a typical Ausgrid customer consuming 3,900 kWh per year.

'Standing offers' are for customers that have not signed up to a 'market offer' – market offers are all other offers in the market. Since 2019-20, the AER has set a maximum bill for these offers (for a specified level of consumption), known as the "default market offer" or "DMO" and so most retailers have set their standing offers equal to the DMO. Some are slightly lower.

Chapter 6 has more information about pricing outcomes for customers, cost drivers and trends over time. Chapter 8 discusses the impacts of the DMO in detail.

Figure 3.2 Any time tariff offers for residential customers in the Ausgrid network area (3,900 kWh pa, nominal, GST-inclusive)



Source: Offers available on EnergyMadeEasy, May 2021.

The bill amounts shown in Figure 3.2 are based on retailers' 'anytime offers.' These offers typically have a fixed daily supply charge and a consumption charge per kilowatt hour (kWh) of electricity consumed (an anytime tariff). Most customers are on these 'anytime offers' because most customers still have accumulation meters, which can only measure the total amount of energy consumed over a time period.

[9] Based on AER's DMO consumption levels for each network.

Other price structures are also available to some customers, including:

- Time-of-use tariffs, where customers pay different rates for electricity depending on what time of day and what day they use electricity. These are considered in Chapter 7.
- Demand tariffs, which are paid in combination with either anytime or time-of-use tariffs. They are an additional charge for the 30-minutes of maximum electricity used in the month during a set peak demand period (this is the 'demand' charge).

Prices also vary depending on network area, mainly because of the different network costs in each region. There are three network areas in NSW – Ausgrid (covering most of Sydney and the Hunter), Endeavour (covering most of South West Sydney and the Illawarra), and Essential Energy, which covers the rest of the state. Figure 3.2 shows prices for the Ausgrid network area. We found a similar spread of offers in the Essential and Endeavour Energy network areas.

3.2 Non-price incentives

In addition to price, retailers also compete on customer experience. To attract customers, some retailers market their clear and simple plans and accessible account information. For example, having fewer plans that are intended to be simpler to understand[h] and providing payment options through third party apps[i]. Some retailers are also offering multi-lingual customer service representatives and apps to assist customers where English is not their first language.[j]

Other retailers are also offering reward programs which provide access to shopping discounts or allow customers to earn rewards when they shop (to credit back to their energy account).[k] There are also bundling options with non-energy products. For example, On by EnergyAustralia has a 'Stack On' rewards program where customers receive greater discounts when they add products (such as phone and internet).

Some retailers are also marketing their green credentials and provide options for customers to reduce their impact on carbon emissions. Some retailers offer carbon offsets for some or all electricity use. Carbon offsets can be included in the underlying electricity rates, or as add-ons for an extra cost. Retailers also offer GreenPower options where a certain portion of customers' energy use is matched from renewable sources such as wind and solar. Appendix C provides information on GreenPower prices offered by retailers.

[h] One retailer, Glow Power only offered 2 plans, accessed 13 September 2021. Other retailers are also offering 'set and forget' plans where rates and discounts are for the life of the plan and not limited to the first 12 months. Example is Radian Energy, accessed 13 September 2021.

[i] For example, Discover Energy has introduced payment via WeChat which is a common payment platform for its customers. They are also planning to launch Apply Pay and Google Pay soon. Accessed 13 September 2021.

[j] For example one retailer advised us that most of their customers are from non-English speaking backgrounds and customers provided feedback on their excellent customer service and ability to communicate with customer service representatives who can communicate in different languages. Consultation 8 September 2021.

[k] An example is 'Always on rewards' program by On by EnergyAustralia.

3.3 Offers for solar panels with and without batteries

The number of households with solar has increased significantly in recent years, with installations growing by almost 30% around Australia in 2020.[29] Around 25% of households in NSW now have solar panels.[30]

Some new retailers are tailoring their offers to customers with or interested in purchasing solar panels and batteries. A number of retailers are offering bundle options where they provide integrated services which include installation of solar panels and batteries, and ongoing management of energy use. For example:

- On by EnergyAustralia installs solar panels and batteries at no upfront cost under a 7-year contract and customers pay an electricity rate that will not increase during the period[l].[31]
- GEE Energy offers plans where customers pay little or no upfront costs for their solar panel and batteries. Instead, customers pay fixed repayments (which also covers their energy usage) which cost less than what they are currently paying for their electricity.[32]
- SocialEnergy also offer finance packages where customers pay little or no upfront costs for their solar panels and batteries installed. In addition, they offer customers who purchase and install solar panels and a battery a feed-in tariff of 40c/kWh for the first 3,000kWh of exports every quarter.[33] This is significantly higher than IPART's feed-in tariff benchmark of around 5c/kWh for 2021-22[m] and current market offers.
- SonnenConnect provides a virtual power plant scheme where customers can allow the retailer to remotely operate their batteries to stabilise the grid, and in return receive a daily credit of $0.82/day, and $100 one time sign up bonus.[34]

Many solar customers have received good service and value from their provider.[35] However, this has not been the case for everyone. The Clean Energy Regular has found that the fast-growing market supported by the small-scale renewable energy scheme[n] subsidies has led to the emergence of unscrupulous operators.[36] The ACCC has received a large volume of complaints from customers about their experience with retail solar panels and their installation. Issues include misrepresentations about the quality of the panels and the financial costs and benefits of having solar (including financing arrangements).[37]

---

[l] Under this bundling package, customers pay an electricity rate (excluding controlled load and daily supply charges) that would not increase during the contract period. Customers will need to pay an exit fee if leaving the plan within 7 years and customers do not receive feed in tariffs. The battery will also form part of the retailer's Virtual Power Plant.

[m] IPART sets an annual guide for customers about how much they can expect to receive from their retailer for their excess solar electricity that is fed into the grid. IPART's website has 2021-22 solar feed-in tariff benchmark details.

[n] The scheme provides a financial incentive for households and businesses to install small-scale renewable energy systems, predominantly solar panels. It does this through the creation of small-scale technology certificates where the number of certificates relates to the generation capacity of the installation. These must be purchased by liable entities – usually retailers, who recover these costs through electricity prices.

Given these issues and other concerns (see Box 3.1), the Minister for Energy and Emissions Reduction asked the Clean Energy Regulator to review the sector. It released its report in September 2021.The Government supported its recommendations to improve the integrity of the Small-scale Renewable Energy Scheme and better protect consumers, including that the regulator:

- set requirements for an installer accreditation scheme and the listing of eligible solar components, including reporting requirements
- have more effective powers to monitor and enforce compliance, including the ability to suspend installers, disqualify retailers and de-list components
- develop consumer information and an online tool to help consumers navigate the sector to make informed choices.

The Australian Government has committed $19.2 million to implement its recommendations.[38]

Box 3.1 Consumer issues with solar panels

The Clean Energy Regulator's integrity review of the rooftop solar PV sector outlined the key problems faced by consumers when they purchase solar panels and plans:

- misrepresentations regarding system components – relating to country of origin of products, generation capacity and output
- financial costs and benefits – the price of systems increasing between quote and completion, the cost of financing, the rebate or tariff rates that consumers can expect to receive for exported electricity, and the effective rate of return on investment.
- false testimonials and pressure applied to provide positive reviews or remove negative reviews
- warranty and repair claims – where consumers are misled as to their rights or the responsibilities of sellers
- faulty products and installations, including failure to connect to the grid and failure to install the system in a timely fashion or at all (after a deposit has been paid)
- high pressure sales techniques and unlawful practices
- fly-by-night operators who leave consumers stranded by exiting the market or going insolvent (including phoenixing)
- financing where capacity to pay is questionable or consumers are not properly informed of the terms of the financing.

The ACCC has reported that while high volumes of complaints are received, there is little evidence of systemic company non-compliance by national traders. The complaints are generally individual issues relating to small, localised traders, and/or single rogue employees.

Source: Clean Energy Regular, Integrity review of the rooftop solar pv sector, September 2021, pp 45, 56.

3.4 Offers to help customers manage their energy usage and bills

Retailers have been introducing a range of smart technology and proprietary apps to help customers manage their bills. Some apps can help automatically run smart home devices at times when energy is cheaper, and/or sell stored battery energy back to the grid timed at peak prices to generate more income for customers.[39] These energy management apps also provide transparency on prices and usage data which can help customers better understand and manage their bills.

There are also retailers offering monthly payment plan options which includes an energy usage allowance and customers pay extra if they use more. Customers should choose the most suitable plan depending on forecast usage. There are variations on how these are structured, for example:

- SonnenFlat has a monthly charge plan designed for customers with solar and batteries, which provides an annual usage allowance. The plans range from $49/month to $69/month for an annual consumption amount of 4,000kWh to 12,500kWh. Once the annual usage allowance is exceeded, customers pay for usage from the grid.[40]
- On by Energy Australia offers all customers monthly plans which provides a monthly allowance for a set dollar amount. Customers are able to buy top up plans, or roll over unused amounts to the following month. These plans also include free electricity on Saturdays.[41]

Amber Electric allows customers to access electricity at wholesale prices for a monthly fee, with the protection of paying no more than the DMO. Its customers can also sell electricity at the real-time wholesale price.[42]

In its submission to our Draft Report, AGL highlighted its demand response program. AGL advises customers who opt into this program when a peak event occurs and suggests energy reduction targets[o] for that event. Customers get bill credits (up to $10 for every 2 to 3 hour event) if they can reduce their usage (such as by delaying use of appliances or turn them off) to AGL's suggested energy targets.[43]

The Energy Consumers Australia's (ECA) first behaviour survey released in October 2021 explores how consumers use energy. It investigated when consumers use their electrical appliances, their attitudes to new technology and how willing they are to change the way they use their energy. The ECA found that of the NSW households surveyed:

- 58% were interested in new technology to help manage their energy bills
- 77% were willing to reduce their energy use as much as possible during a peak period if they were asked to (32% only if they were offered a financial incentive and 45% would reduce their usage even if not offered a financial incentive).[44]

[o] AGL sets energy reduction targets prior to the peak event, based on what it considers to be realistic targets, based on the customer's historical data. It sets out the energy reduction required to receive the maximum available incentives. The targets change from event to event and customers can contact AGL if they feel the target is not realistic. AGL, Peak Energy Rewards, FAQ, How are my energy targets calculated, accessed 18 November 2021.

3.5 Offers for electric vehicles

While the uptake of electric vehicles is low, at around 5% of surveyed households in NSW,[45] targeted electricity products for customers with electric vehicles are beginning to emerge. Most of these plans have reduced tariffs during off-peak periods for charging electric vehicles. For example:

- Powershop[p] offers a 'super off-peak tariff' where electric vehicle customers are charged reduced usage rates at 7.7c/kWh between 12 to 4am on weekdays. This compares to their peak rates of 40.7c/kWh during 2 to 8pm.[46]
- OVO Drive offers a discount of 5c/kWh off the standard rate between 12 to 5am.[47]
- Red Energy's Electric Vehicle Saver electricity plan provides free electricity between 12pm and 2pm on Saturdays and Sundays.[48]

Some services can automatically optimise when customers charge their electric vehicles. For example, Discover Energy has plans that use its proprietary algorithms to determine the optimal time to charge based on customers' charging preferences and avoiding peak demand periods where possible. Discover Energy also has a program that allows customers to use their electric vehicle's battery as a back-up power source for their home during an emergency or blackout. Customers can also earn bill credits by trading electricity from their vehicle battery during times of high demand and also to help stabilise the grid.[49]

The uptake of electric vehicles is likely to increase with the falling cost of EV batteries, government policies[q] to reduce emissions in the transport sector, and the increasing availability of fast charging locations.[r] The NSW Government's Electric Vehicle Strategy aims to increase uptake of electric vehicles to more than 50% of car sales by 2030 by providing EV rebates[s], abolishing stamp duty on EVs, electrifying the NSW Government fleet.

However, there are still barriers to the uptake of EVs. In particular, in its review of 2020 retail competition, the AEMC found that there are barriers for customers living in apartments. Strata or building management approval is required for the installation of electric vehicle chargers, and they would need to determine how to bill separate users of common charging facilities or allocate extra network demand charges caused by the installation.[50]

---

[p] Shell will acquire Powershop in the first half of 2022. Shell, Shell to acquire energy retailer, Powershop Australia, accessed November 2021.

[q] The Commonwealth Government released its Future Fuels and Vehicles Strategy to reduce emissions in the transport sector and increase uptake of electric vehicles. This includes investing in electric vehicle charging infrastructure where needed and ensuring the electricity network is ready for electric vehicles. Department of Industry, Science, Energy and Resources, Future Fuels and Vehicles Strategy, 9 November 2021.

[r] The JOLT charging network announced in August 2021 that it will release 5000 more free fast chargers across Australia, with the roll-out beginning in Sydney; EV Central, Another 5000 free fast chargers are coming to Australia with vast JOLT network to cover the country, accessed 4 November 2021. EV Central, Ampol adds EV chargers across its retail sites in Australia, accessed 4 November 2021.

[s] The NSW Government is offering $3,000 rebates for the first 25,000 new battery electric and hydrogen fuel cell vehicles and exemptions on stamp duty for electric vehicles purchases with a dutiable value of up to $78,000. NSW Government, Rebates for electric vehicle purchases, accessed 4 November 2021.

The ESB's two-sided markets reform (discussed in Chapter 1) is currently examining the integration of DER into the energy market system, including for electric vehicles. This includes looking at:

- how electric vehicles will be integrated efficiently to prevent electric vehicles becoming a stressor on the system during peak times.
- how to empower customers to sell energy from their electric vehicles to the grid when prices are high, and charge their vehicles when prices are low.
- ways to make it easier and cheaper for customers to have multiple retailerst for different types of energy loads, for example solar panels vs electric vehicles.

3.6 Smart meter uptake is increasing

Customers require smart meters[u] to access many of the innovative offers provided by retailers, as they need up-to-date information about their electricity usage. For example:

- Solar customers are required to have a smart meter to frequently digitally measure the two-way solar imports and exports, such as 30-minute intervals.
- Energy management apps also require smart meters to monitor live energy usage to better understand consumption levels throughout different periods of the day. They also help customers understand and manage their bills.

Traditional meters are only read every quarter and so they are not able to provide this information.

All new meters that are installed must be smart meters. Many retailers will arrange for a smart meter to be installed for free or as part of your contract if the current meter is not a smart meter.

Smart meters also have the potential to provide wider benefits, not just benefits to individual customers. To illustrate, the Endeavour Energy network operator is trialling a project in Albion Park across 2,500 homes to use smart meters to dynamically control homes' hot water systems. It will use smart meters to switch on hot water systems during the day when excess solar generated electricity is available locally. The program is run like a Virtual Power Plant or energy storage system but does not require the same hardware or software. This program reduces peak energy demand and maximises the use of renewable energy.[51] Endeavour aims is to extend the program to other regions and also to electricity vehicle charging and batteries.

Programs like this have the potential to use smart meters to help meet electricity demands without increasing network expenditure. Because they can transmit real time information, smart meters can also provide operational benefits to networks. For example, they can help networks remotely identify outages or impending power supply problems without needing customers to report the issue.

---

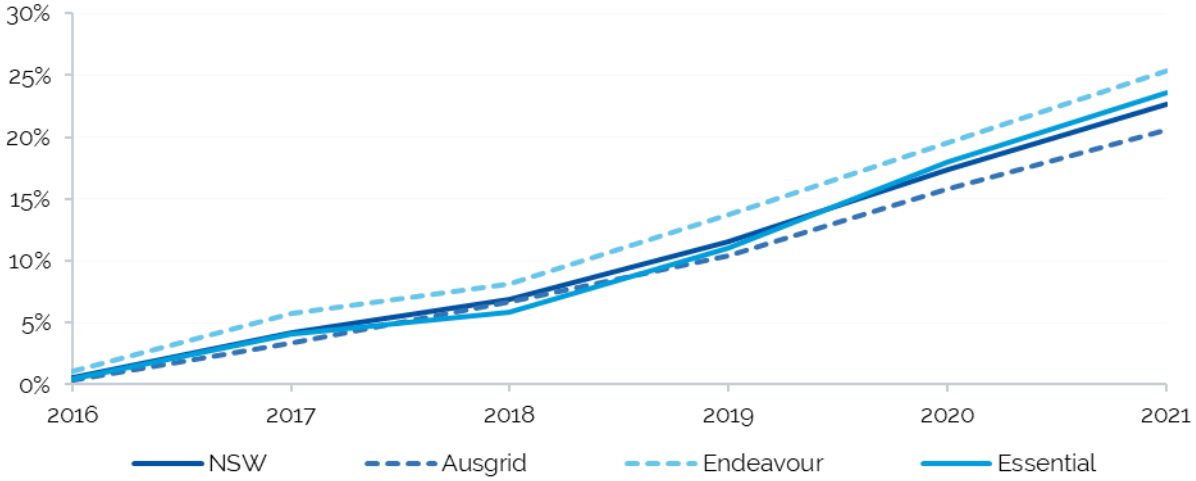
t Currently customers are required to set up a second connection point if they want to engage another retailer at the same time.

u A smart meter is a device that digitally measures your energy use. A smart meter measures when and how much electricity is used at your premises. It sends this information back to your energy retailer remotely, without your meter needing to be manually read by a meter reader.

Currently about 23% of all customers have smart meters in NSW. This ranges between 21% to 25% between the three NSW network areas, with the highest in the Endeavour Energy's network (Figure 3.3). In its recent behaviour survey, the ECA found that of the surveyed households who have a smart meter, only half used it to control energy costs.[52]

The AEMC is currently reviewing the regulatory framework for metering services to investigate impediments to an efficient and timely roll-out of smart meters (See Box 3.2).

Figure 3.3 Proportion of customers with smart meters in NSW



Source: AEMC, Directions paper, AEMC Review of the regulatory framework for metering services, September 2021

Box 3.2 Uptake of smart meters

Around 25% of NSW customers have smart meters. Their full potential benefits remain largely unrealised for energy users and the grid, as uptake has been slower than expected.

Currently meters at new properties are installed as smart meters, and existing meters are replaced as smart meters when they are damaged or faulty.

Due to the installation costs, retailers may not offer to replace meters if they are not faulty or have reached their end of life. Some retailers have advised that more customers with smart meters would provide greater incentives for them to offer more innovative products.

The AEMC is reviewing the regulatory framework for metering services to investigate impediments to an efficient and timely roll-out of smart meters. It has recently released a directions paper, identifying some preliminary options to improve the roll-out. These include:

- Ways to improve the customer experience, such as requiring retailers to install smart meters when customers request them and reduce delays in replacing meters.
- Aligning incentives - such as spreading installation costs across the parties that benefit or making multiple parties responsible for metering. At the moment, the retailer is responsible for providing smart meters, but the network provider who also benefits, does not bear the costs.
- Introducing a 'backstop' date or dates by which time all accumulation meters or manually read interval meters must be replaced.

In November 2021, the AEMC announced that it would recommence this review in April 2022.

Source: AEMC, AEMC Review of the regulatory framework for metering services: Directions paper, September 2021; Information Sheet, November 2021.

Finding

1. Retailers are increasingly competing for customers:
   - there are now 40 retailers in the market, which is around three times more than in 2013-14 when we first started monitoring the market
   - retailers compete for customers on price – the lowest offers in the market are around 35% lower than the highest offers.
   - a range of innovative offers and non-price incentives are being offered to further attract customers.

4 How customers are responding

This chapter discusses our findings on consumer behaviour in the retail electricity market in 2020-21, and consumer perceptions on market outcomes. We have considered several indicators including engagement in the market (switching and proportion of consumers on market offers), customer satisfaction, confidence in the market and the number of electricity related complaints.

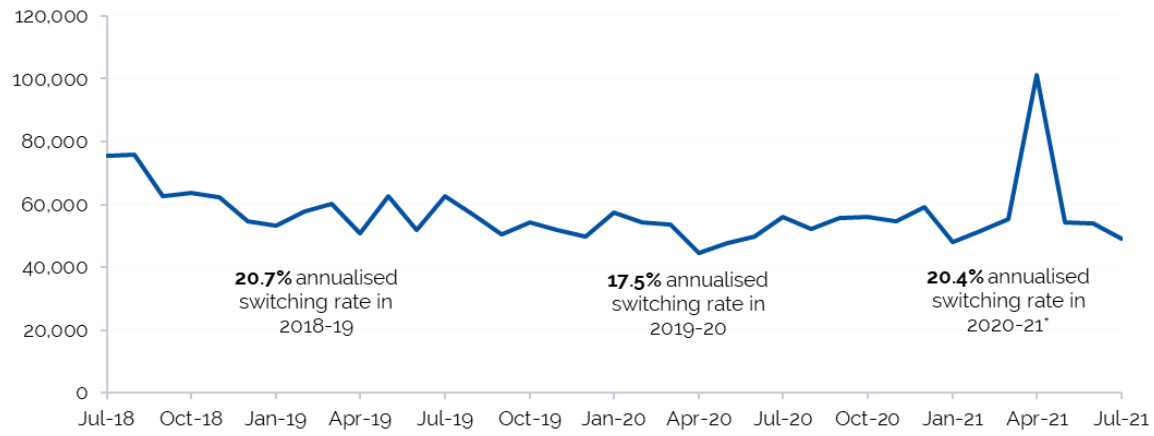
4.1 Increasing levels of customer engagement

We found that over 2020-21 customers continued to engage in the market. There were small increases in the rate of switching for residential electricity consumers compared to the previous year, and the proportion of residential customers on market offers grew.

4.1.1 Switching rates increased slightly

20.4% of customers changed their retailer in 2020-21. This compares to 17.5% and 20.7% in the previous two financial years (Figure 4.1)

Figure 4.1 Number of electricity consumers switching each month



Note: The 2020-21 switching rate was estimated as the total number of customer switches in 2020-21 divided the number of customers as at Q3 2020-21.

Source: IPART analysis. Number of customer switches: AEMO, NEM monthly retail transfer statistics, July 2018 to July 2021. Customer numbers: residential and small business customer number estimates from AER, Retail Performance Data Q3 2020-21, Schedule 2. Accessed September 2021.

Some of the increase in customers switching was due to a spike in the number of customers switching in April 2021, which is around double the monthly average. AEMO has advised us that this increase in numbers was mainly due to processing a bulk change for a retailer who acquired another retailer.[53]

We estimate that if the rate of customers switching in April 2021 was at its monthly average, of the preceding 12 months, the switching rate in 2020-21 would have been around 19%. This is still higher than the previous year.

Higher switching rates may relate to a number of factors. The gains from switching increased in 2021, as the market offers fell relative to standing offers, and consumption increased with more people working from home. It may have become easier for customers to compare offers, since the introduction of the DMO. This requires retailers to measure discounts against the specified DMO level. Most retailers also enable customers to switch retailers online.

In its submission to our Draft Report, AGL advised that over 2020-21, its churn rate remained flat at 14.3% nationally, which is lower than market average of around 20%.[54] It submitted its stronger retention focus meant that it lost less customers than usual. However, since 2020-21, AGL observed that the overall market churn has increased to levels more consistent with before the start of the COVID-19 pandemic.[55]

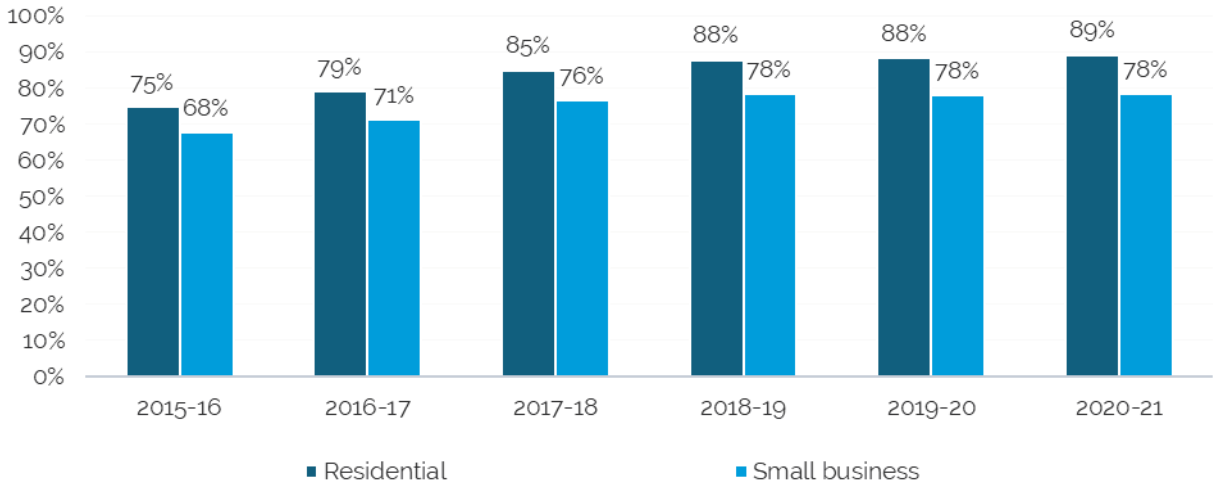
4.1.2 More customers were on market offers

As customers switch between offers, an increasing proportion are moving from standing offers onto market offers. In NSW, the proportion of residential customers on market offers is 89% in 2020-21, an increase of 1% compared to previous year.

For small business customers, 78% are on market offers and this remains unchanged compared to the previous two years (Figure 4.2). This was the lowest proportion across the NEM. The ACCC found that business customers on standing offers tend to have lower median usage than those on market offers. These customers have a smaller incentive to look for a better deal, as the size of any potential saving from switching is lower with lower usage.[56]

In 2020-21, many businesses were also affected by COVID-19, with median energy consumption down by 17% compared to the same quarter last year.[57] It is not surprising that business customers would be less engaged in the market in these circumstances.

Figure 4.2 Proportion of residential and small business customers on market offers in NSW



Note: Year 2020-21 is reflective of Q3 2020-21 values
Source: AER, Schedule 2 – Q3 2020-21 Retail Performance Data, accessed September 2021

As discussed further in Chapter 6, prices of available market offers are generally cheaper than standing offers – the median market offer was around 20% lower than the median standing offer in 2020-21. However, not all customers who are on market offers are paying cheaper prices. In response to our Draft Report, PIAC submitted that many customers may have switched in the past few years and then remained on their current market offer on the assumption that it continues to be a good offer.[58] However, customers may now be paying higher prices, close to or equivalent to a retailer's standing offer, as any benefits that they initially received may have expired.[v] The retailer may have also increased the underlying prices.

Recent reforms should help to prompt customers to shop around regularly to ensure that they remain on good value offers. In 2018, the AER introduced its Benefit Change Notice Guideline which requires retailers to:

- notify customers no earlier than 40 business days and no later than 20 business days before the expiry of any benefit period
- the prices that the customer will now pay as a result of the benefit change/expiry
- provide instructions on how the customer can use EnergyMadeEasy to compare offers.[59]

As of February 2019, retailers are also required to notify customers in advance of any price changes for their plan.[60]

[v] Many retailers advertise guaranteed benefits for a certain time period with their market offers. For example. they may offer a large discount off usage charges for a period of 12 months, or a guaranteed discount of a certain dollar amount each quarter, up to one year.

From the publicly available billing information from the ACCC and the Department of Planning, Industry and Environment (see Chapter 10 for further detail and on changes in customers' bills) we are not able to quantify how many market customers are paying higher prices (similar to standing offer rates). The information available shows the range of bills and the average cost of electricity (total bill divided by usage). which may reflect different usage patterns over time, rather than price.

The ACCC could do further work to understand the distribution of prices paid by customers for a given level of consumption. When retailers report customers' billing information to the ACCC they provide the Plan ID for the offer that the customer is on, but not the specific prices that the customer pays.[w,61] The specific prices of each retailer's offers can be obtained from EnergyMadeEasy according to each offer's Plan ID. These two datasets could be linked. If the information becomes available, we will report on the distribution of prices paid by customers in our 2021-22 report.

Finding

2. Customers continue to engage in the market in 2020-21:
   - Switching rates increased from 18% to 20%
   - The proportion of customers on market offers is now 89% for residential customers (up from 88%), and 78% for business customers (unchanged).

4.2 Comparing innovative offers

PIAC submitted that 'innovative' energy offers and bundling with non-energy related products can have consumer benefits. However, PIAC considered that it can make choosing the right energy offer and services confusing.[62]

Governments and regulators have put in place a variety of measures to help customers compare offers. One of the main objectives of the DMO is to provide a consistent benchmark so that customers can compare discounts between offers.

The AER also publishes independent comparisons of retailers' energy offers through its Energy Made Easy website. There are also a large number of privately run comparator websites that can help customers compare and switch offers (e.g. Compare the Market and Canstar Blue).

[w] Retailers provide details on each customer's total usage charge, total usage and total daily supply charge. The implied usage price could be derived for some customers directly from the information provided.

Energy Made Easy website calculates the annual bills the customer would face under different market offers on a consistent basis, using their actual historical energy usage or their household characteristics, and ranks them by price. This makes it relatively easy for customers to compare a large number of offers, and to assess their suitability for their individual circumstances. However, as noted by PIAC, there are other features of the offers that need to be considered on an offer by offer basis, such as disconnection fees, credit card payment fees, late payment fees, membership fees, and a range of non-price benefits.[63] Retailers are required to disclose all of its fees and these are displayed transparently on Energy Made Easy.

Currently, the AER is reviewing how to make energy bills simpler and easy to understand, to inform the development of a new enforceable Better Bills Guideline.[64]

However, as more innovative pricing structures are being introduced, it may become more difficult to compare offers using these tools. PIAC was concerned that customers will not have the right tools to ensure they are getting good value.[65] For example, there are new offers that allow customers to pay flat monthly fees that include an annual consumption amount. Customers will need to have an accurate understanding of their typical consumption profile to decide whether such plans suit their circumstances.

Customers who enter a contract that includes several different services or products with their electricity (such a solar panels, or other services like insurance), will also need confidence that they are getting value from this bundled product. PIAC submitted that it is yet to see clear evidence of bundling providing benefits to consumers. It queried how genuine the discounts are (whether it is made up from inflating prices of other products) and how easy it is for customers to compare each underlying product with other service provider's prices.[66] Some retailers are transparent about their bundled products, disclosing the underlying cost of each product and how much customers will save by purchasing multiple products from the same retailer. For example, Origin Energy offers a combined electricity and NBN internet deal, where it discloses the underlying cost of each product and offers a $10 per month discount to customers that sign up to both.[67]

Going forward, the "consumer data right" will soon be extended to the energy sector. This should help consumers compare offers for their individual circumstances and help energy providers tailor their offers to individual consumers. New regulations are likely to require retailers to disclose data (including consumption data) to customers or their nominated accredited data recipients.

As innovation continues to develop, we will monitor the level of complexity in retailers' offers and whether customers are able to understand if they are getting a good deal from their electricity retailer.

4.3 Consumer sentiment and confidence has improved

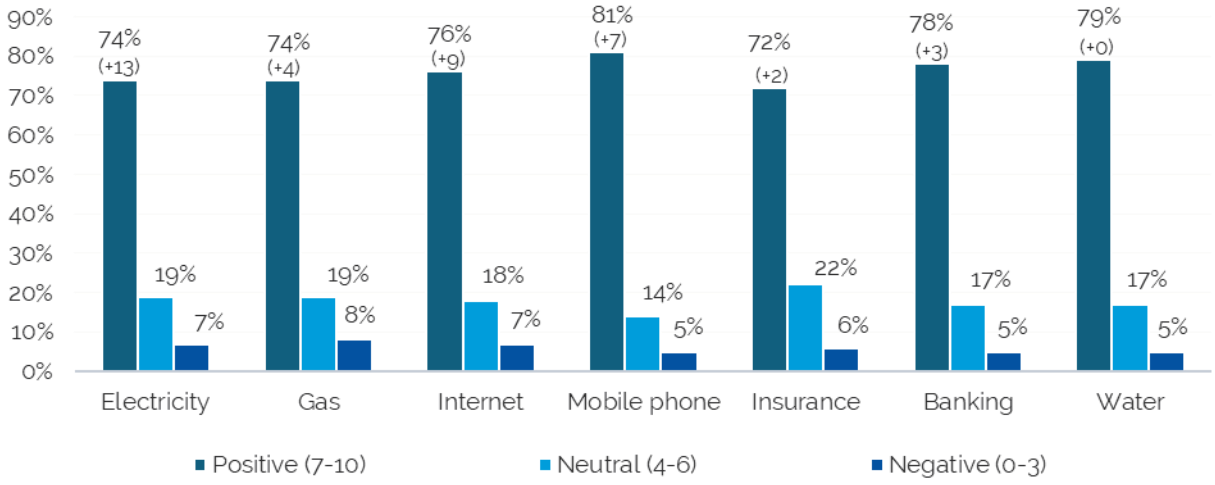
There has been an increase in reported satisfaction with electricity retail services over 2020-21, and the number of electricity related complaints to the Energy & Water Ombudsman NSW (EWON) were lower compared to previous years. However, ECA found that many Australian consumers are concerned about the energy transition currently taking place, including future electricity affordability and reliability.

4.3.1 Energy Consumers Australia survey

The ECA conducts sentiment surveys assessing the attitudes and activity of residential and small business energy consumers across Australia. The June 2021 survey of NSW electricity customers found that consumer sentiment has improved on many measures since last year, including:

- 83% are satisfied with the provision of electricity services (up 4% from the previous year)[68]
- 69% are satisfied with the level of competition (e.g. range of choices or number of potential suppliers) in the electricity market (up 8% from previous year)[69]
- 64% are satisfied that their billing and usage information is clear and simple to understand (up 7% from previous year)
- 59% are satisfied that they have the tools and assistance to manage energy use and costs (e.g. smart phone devices, apps or other tools) – (up 8% from previous year)
- 49% confident that the overall market (energy industry and energy regulators) is working in their long term interest (up 11% from previous year).[70]
- 74% are satisfied with the value for money of their electricity service (up 13% from the previous year). However, customers considered that most other services such as mobile phone, water and banking service provided better value (see Figure 4.3).

Figure 4.3 NSW consumer satisfaction with utilities and services – value for money (June 2021)



Source: Energy Consumers Australia, Sentiment Survey – June 2021, NSW, accessed 13 September 2021; Sentiment Survey June 2020

Despite the increased confidence, the ECA found that nationally, many household consumers are still concerned about:

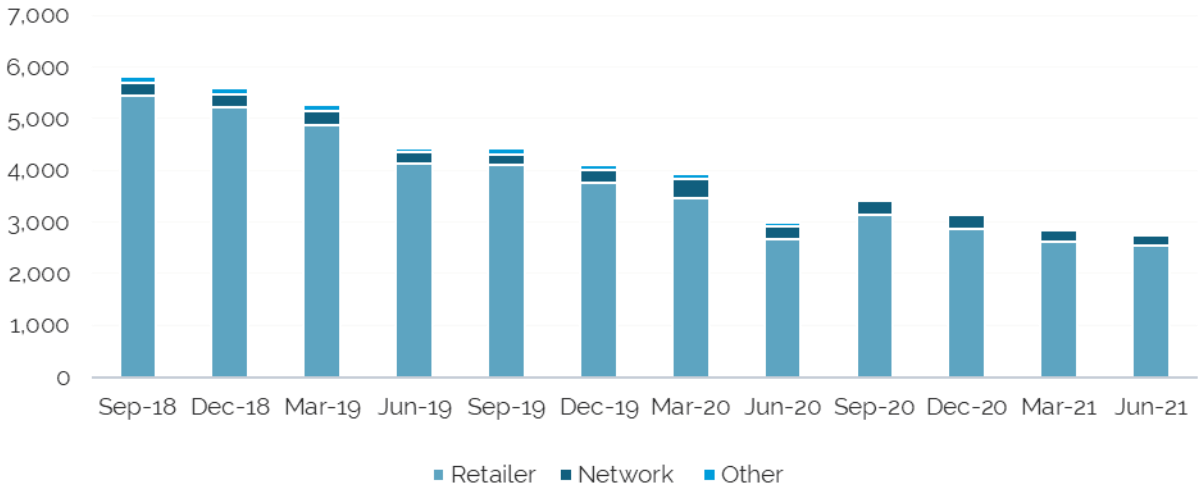
- the future affordability of electricity (62% concerned that electricity and gas will become unaffordable for them over the next 10-20 years)
- that the energy system in Australia will fail to keep up with the changing way in which we use energy (69% of surveyed)
- that we won't have plans in place to replace or update ageing coal fired power plants when they reach the end of their operational lives (72% of surveyed)
- that there will be frequent electricity outages in 10-20 years' time (58% of surveyed).[71]

In NSW, 30% of households reported they have experienced an outage in the last 6 months. Of this group, 64% were satisfied with the number of times they had faults and 67% were happy with the time taken to restore the electricity supply. Around half (53%) of the customers were satisfied with the communication received from the retailer during the outage to keep them informed.[72]

4.3.2 Electricity complaints have been trending down over the past few years

EWON publishes quarterly statistics on the number of complaints for electricity, gas and water. Over the past few years, the number of electricity complaints has generally been falling (Figure 4.4). Most complaints relate to retailers and are about billing and customer service.

Figure 4.4 Quarterly number of electricity complaints reported by EWON



Source: EWON, EWON Insights, September 2018 to June 2021, accessed 7 September 2021.

EWON also reported that retailers have responded responsibly to vulnerable customers during COVID-19. Where there were cases of a possible breach by a retailer to the AER's Statement of Expectations, EWON found that in all cases the retailers immediately resolved the customer's complaint and provided the necessary support to rectify the initial problem.[73] However, EWON reported that it expected debt collection complaints to re-emerge when collection activity recommenced and the end of the 2021 Greater Sydney COVID-19 lockdown.[74]

In its submission to our Draft Report, AGL advised that its increase in Net Promoter Score (NPS) and reduction in Ombudsman complaints, is consistent to our finding of customer satisfaction with electricity retailers improving over 2020-21. AGL's NPS was positive for the first time in 2019-20, rising from -11.1 in 2018-19 to +2.3 in 2019-20. In 2020-21, it's NPS increased further to +4.9. AGL considered this a positive result given the challenges throughout the year.

AGL also advised that it has implemented a three-year program to reduce Ombudsman complaints nationally by 50% against 2017-18 volumes by the end of 2021-22. Ombudsman complaints reduced by 23% in 2020-21, following a 31% reduction in 2019-20. This is a 48% reduction against 2017-18 volumes, almost reaching its target one year ahead of schedule.[75]

Findings

3. There has been an increase in reported satisfaction with electricity retail service over 2020-21.

4. The number of electricity-related complaints to the Energy & Water Ombudsman NSW (EWON) was lower compared to previous years.

5 How the market structure is changing

Chapter 3 showed that there has been continuous growth in the number of retailers entering the market. with 16 new retailers entering in the last 2 years. This indicates that it is relatively easy for businesses to set up in NSW. This chapter discusses the rate that these businesses have been able to gain customers. It also considers whether there are barriers to expansion.

5.1 The growth of new retailers has been slow

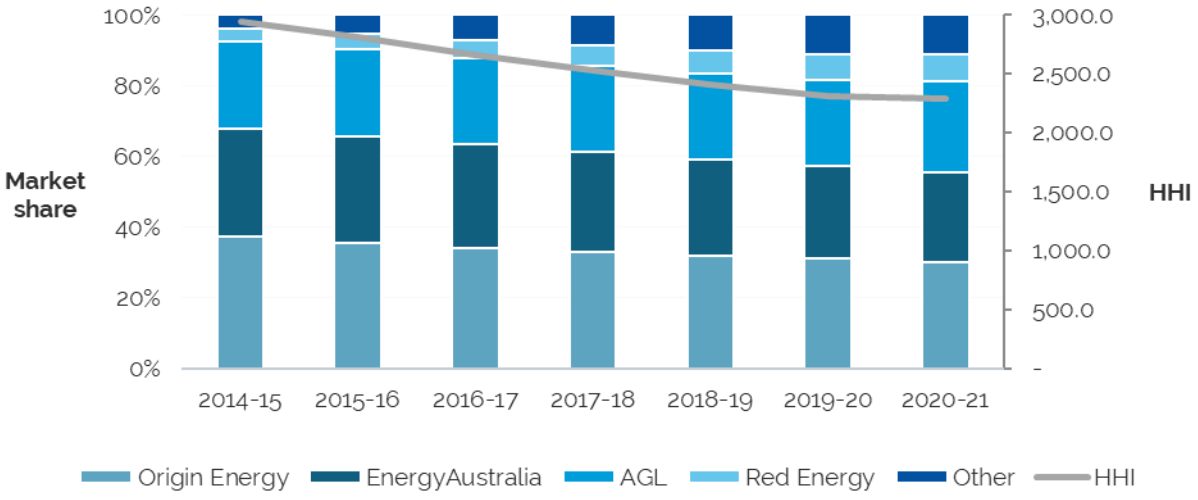
Even though there are 40 electricity retailers in NSW, and customers are switching at relatively high rates, the market for residential and business customers is dominated by three businesses ("the big 3") – Origin Energy, EnergyAustralia, and AGL. These same retailers dominate the gas market.

Figure 5.1 shows that the market concentration has fallen over time but it is still relatively concentrated. The Herfindahl-Hirschman Index (HHI), which is a measure of market of concentration (see Box 5.1), is currently 2,293 for the retail electricity market.

The combined market share of the big 3 has slowly fallen over time, but they still supply 81% of customers in NSW in roughly equal shares (down from 93% in 2014-15). Origin and Energy Australia have lost market share (7% and 5% respectively since 2014-15). However, AGL has slightly increased its share of the market by 1%, with its acquisition of Click Energy Group (a subsidiary of Amaysim) in 2020.[76] As a result of AGL's acquisition of Click Energy, the combined market share of the big 3 remained stable in 2020-21.

The next largest retailer, Snowy Hydro, retailing under its Red Energy brand, has doubled its market share since 2014-15 to 8%. Snowy Hydro is Commonwealth Government owned.

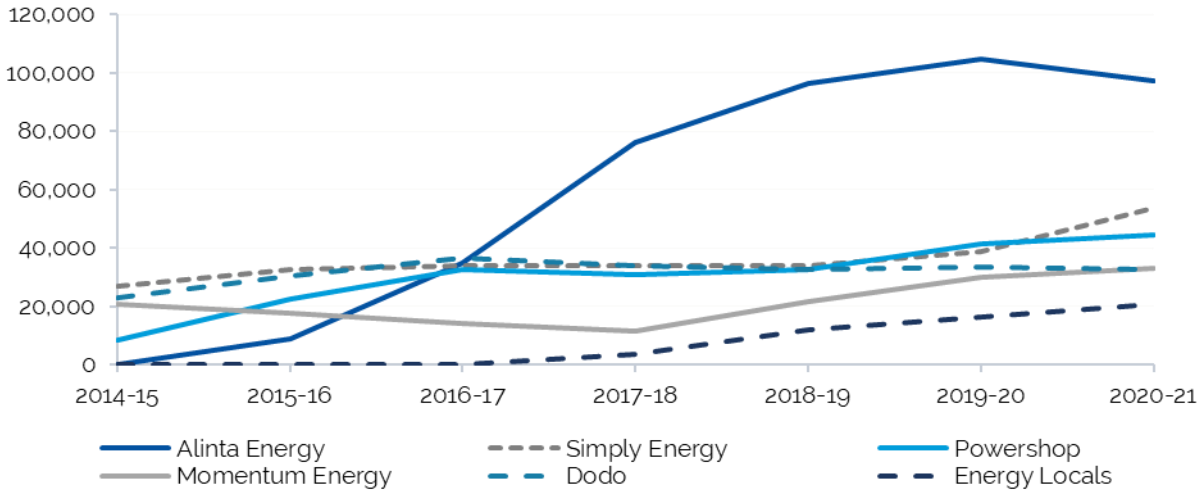
Figure 5.1 Market share and concentration



Source: AER, Schedule 2 - Q3 2020-21 Retail Energy Performance Data, June 2021.

The remaining 11% of the market is shared between the other retailers – up from 4% in 2014-15. 8% of this is held by 6 retailers. These retailers had more than 20,000 customers each in 2020-21 (Figure 5.2). The remaining 30 retailers in the market had less than 10,000 customers each, with a combined market share of around 3%).

Figure 5.2 Customer numbers of smaller retailers



Note: This chart shows the customer numbers for the next 6 largest retailers after the Big 3 and Snowy Hydro.

Source: AER, Schedule 2 - Q3 2020-21 Retail Energy Performance Data, June 2021.

Our assessment above includes the combined markets for residential and small business customers. We also considered the two markets for residential and small business customers separately. There are similar levels of competition in the small business and residential markets. The HHI for the small business market (2,234) was slightly lower than for the residential market (2,301).

Box 5.1 The Herfindahl-Hirschman Index (HHI)

The HHI is a common measure of market concentration. The results can range from close to zero for a highly competitive market, to 10,000 which represents a monopoly market.

The information below assists interpretation of the result:

- The ACCC considers a post-merger industry with a HHI of 2,000 or less is less likely to raise competition concerns (used when considering the impact of mergers).
- An ACCC review of the mobile telecommunications market found a HHI of around: – 3,100 for mobile services – 3,500 for fixed broadband services – 4,500 for fixed voice services.
- The United States Department of Justice and Federal Trade Commission considers market concentrations below 1,500 are competitive and above 2,500 are highly concentrated.

Source: ACCC, Merger Guidelines 2008, updated 2017, p 35; ACCC, Communications Sector Market Study Final Report, April 2018, p 23; U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines, 19 August 2010, p 19.

Finding

5. The market concentration was steady in 2020-21. The combined market share of the "Big 3" retailers (Origin Energy, EnergyAustralia and AGL) was maintained as AGL purchased Amaysim/Click. In 2020-21
   - 81% of customers are supplied by the "Big 3"
   - 97% of customers are supplied by 10 retailers. The remaining 3% of the market is shared between 30 retailers.

5.2 Barriers to expanding market share

We have previously reported on a number of barriers to smaller retailers expanding their market shares, including retention and win-back strategies and inconsistent regulations across the NEM. These are discussed below.

5.2.1 Retention and win-back offers

We have continued to hear that 'retention offers' and 'win-back' offers make it challenging for smaller retailers to gain new customers. When customers sign up with a new retailer, they will often be contacted by their existing retailer with a more attractive offer before the customers switch (a "retention" offer or "save") or after the switch takes place ("a win-back offer"). Often, the customer will then choose to stay with or return to the incumbent retailer. In the meantime, the new retailer has incurred marketing and customer acquisition costs that it will not recover from that customer.

After previously banning retention offers,[77] the New Zealand Electricity Authority introduced a ban on retailers winning back their previous customers for 180 days after the customer has switched to another retailer in March 2020. It said that this provided an incentive to retailers to offer better prices and products to their customers upfront, rather than waiting until they decide to leave before offering them a better deal.[78]

IPART made a similar recommendation in our 2017-18 market monitoring report. We recommended that the NSW Government submit a new transitional rule change to the AEMC to prohibit retailers from engaging in retention and win-back activities for six months following a switch. We considered that the proposed rule should be in place for a fixed transitional period (for example, three years) while competition continues to develop.[79] The NSW Government has not submitted a rule change consistent with our recommendation.

In October 2021, new processes have commenced to speed up the customer transfer processes to reduce the time available for the existing retailers to make a retention offer a transfer takes place. The time for consumers to change electricity retailers will reduce from up to 3 months to 2 days.[80] However, retailers will still be able to contact people after they have switched to another retailer. In future reviews we will monitor whether 'win-back' offers increase, offsetting any reduction in "retention" offers, and consider whether to make any further recommendations.

5.2.2 Regulatory consistency across the NEM

In past reports we found that inconsistent regulations across the NEM drive additional costs and make it difficult for retailers to expand across jurisdictions.[81]

NSW has unique requirements on retailers through its Social Programs for Energy Code. It also has its own rules relating to smart meter installations and operation.[82] Processes can also vary between networks, which can be difficult and cumbersome for small retailers to navigate. However, the NSW specific requirements are less likely to be an issue in NSW as they are in Victoria, which operates under its own retail code. In contrast, NSW and the other states have adopted the National Energy Consumer Framework (although there are still variations between states).[83]

Retailers were surveyed on their views about barriers to entry and expansion as part of the AEMC's 2020 review. They responded using a sliding scale to indicate how much of a barrier 'different retail licence arrangements/regulations' between jurisdictions are to entering and expanding in the retail market. The sliding scale went from 0 (not a barrier) to 100 (a very strong barrier). Retailers indicated that this was a much stronger barrier in Victoria (around 80 for entry and expansion), compared to the other jurisdictions, including NSW (which mostly indicated 30 to 40 for entry and expansion).[84]

6 Price outcomes

We assessed the changes in electricity prices and the underlying costs of supplying electricity in 2020-21. We have also considered the prices in July 2021, following the changes to the caps on standing offers[85] and network prices.[x] In a competitive market, we would expect that the change in prices broadly reflects the changes in the underlying market costs of supply.

The sections below summarise the key trends since IPART began monitoring the market, and then discusses them in more detail. It also reports on the differences between regions for residential and business customers. The following chapter provides further analysis of the impact of the default market offer on pricing outcomes.

The prices in this Chapter are based on the available offers in the market, rather than the prices from customers' bills. Therefore, they may not reflect the price changes experienced by all customers. As shown in Chapter 4, only around 20% of customers switch each year, choosing the newest offers. The older offers may no longer be generally available, and the change in the prices of these offers may lag. Chapter 10 considers how customers' bills have changed over the last year. Bill changes may reflect both changes in price, as well as changes in consumption.

6.1 Overview of price trends

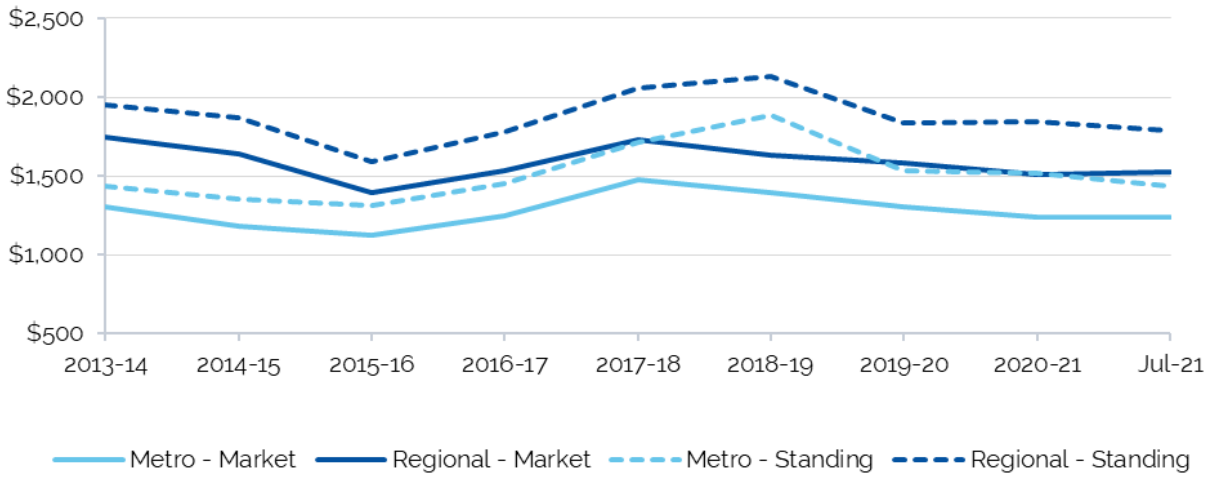
Residential electricity prices have fluctuated over the past 8 years since IPART began monitoring the market. An overview of the key trends in prices is shown in Figure 6.1:

- Prices have fallen from their peak in 2017-18 and 2018-19, and are now lower than in 2013-14 when IPART began monitoring prices. The most recent price reductions are due to falling wholesale prices.
- Standing offer prices (the dotted lines on the chart) are higher than market offer prices (the solid lines). The difference between them was largest in 2018-19, before new rules to cap standing offer prices were introduced in 2019-20. Standing offer prices have since fallen significantly, and the difference between the median standing offers and market offers has narrowed to 20% in 2020-21.
- Prices in regional areas have remained around 25% higher than prices in metro areas. This is because in regional areas network costs are around 60% higher than metro areas (per household), because the poles and wires cover a larger geographic area with a much sparser population.

These observations are discussed in more detail in the following sections.

[x] On 1 July each year, network prices change. Many retailers adjust their prices at this time to reflect these changes, because network prices make up around half of their costs.

Figure 6.1 Annual residential electricity bills for median offers by offer type and region (based on 4,125 kWh of electricity purchased, including GST, nominal)



Note: The regional prices are for the Essential Energy network, while the metro prices are a median of all offers in the Ausgrid and Endeavour Energy networks.

Source: Offers available on EnergyMadeEasy.

6.2 Prices have fallen by around 5% since June 2020

As explained in Chapter 3, there are a range of different prices available in the market for different offers, depending on network area, type of offer (standing/market), and tariff type.

Figure 6.2 and Figure 6.3 show the changes in the median offer in each network area by offer type since June 2020. These are based on the available "all-day" offers in the market.

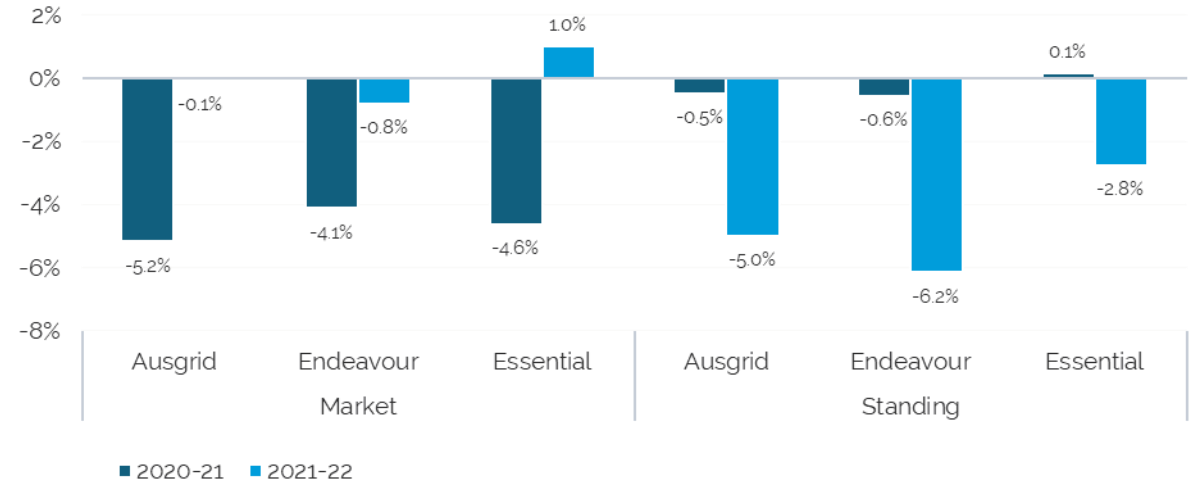
Figure 6.2 shows that retail prices for **residential customers** have fallen since June 2020. It shows that in 2020-21, the median **market offer** fell by around 5%. In July 2021, the median market offer was relatively unchanged.

Standing offers are also lower than they were in June 2020. In 2020-21, **standing offer** prices remained fairly flat, before falling by around 5% in July 2021.

This pattern of falling market offers in 2020-21, followed by falling standing offers in July 2021 was also seen in offers for **business customers** (Figure 6.3). However, there was more variation in the price changes between networks and the median market offer fell by slightly more in 2020-21. Notably, the median market offer for Ausgrid business customers fell by 9% in 2020-21.

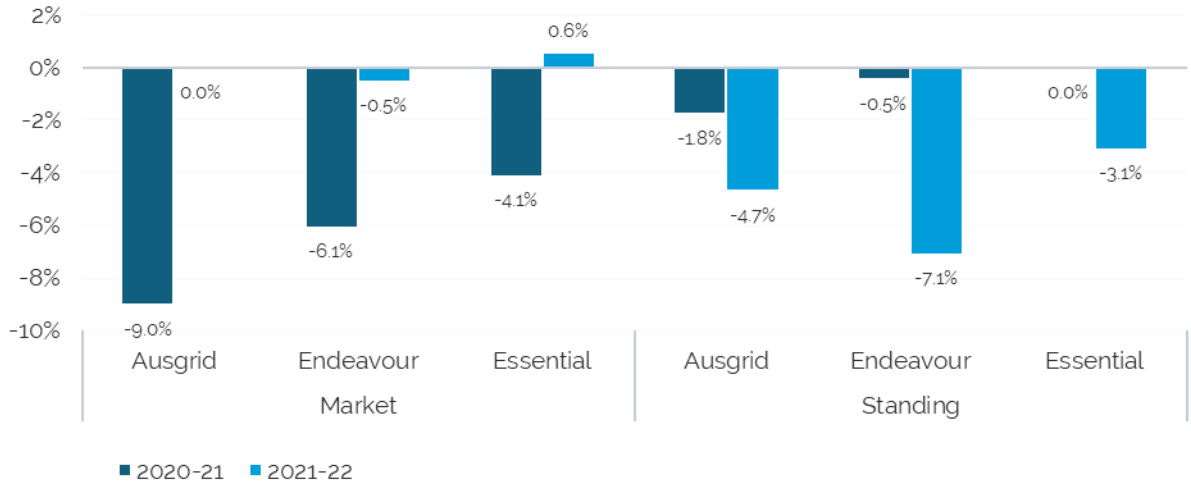
These price changes are likely to be reasonably consistent with the ACCC's finding on price changes in its May Inquiry into the National Electricity Market report. However, there are significant differences between our methodology and that used by the ACCC (Box 6.1).

Figure 6.2 Change in median offers for residential electricity offers for 2020-21 and 2021-22 by network area and offer type (based on 4,125 kWh of electricity purchased, nominal)



Source: Offers available on EnergyMadeEasy, May 2021 July 2021.

Figure 6.3 Change in median offers for business electricity offers for 2020-21 and 2021-22 by network area and offer type (based on 20,000 kWh of electricity purchased, including GST, nominal)



Source: Offers available on EnergyMadeEasy, May 2021 July 2021.

Box 6.1 The ACCC's findings on price changes in NSW

The ACCC reported on price changes in its May report on its Inquiry into the National Electricity Market. It based its findings on billing data it collects from retailers. It compared bills in the first quarter of 2020-21 with the same quarter in 2019-20 using data across the three NSW networks. It showed:

- For residential customers:
  - A 3.1% reduction in market offers (compared to IPART's finding of around 5% reduction for the 2020-21 year)
  - A 4.9% reduction in standing offers (compared to IPART's finding that these prices were flat)
- For business customers:
  - A 0.3% reduction in market offers (compared to IPART's finding of around 6% reduction over the 2020-21 year)
  - A 6.8% increase in standing offers (compared to IPART's finding that these prices were relatively flat)

There is a timing difference between our findings and the findings of the ACCC. We compare prices as at June each year, whereas the ACCC compares bill changes for the July to September period each year.

Another difference between the findings is that the ACCC's changes are for the 'effective price', which reflects changes in consumption as well as price. It is calculated as the bill divided by consumption. An average customer pays around 25% to 30% in fixed charges, which means that all else being equal, the higher the consumption, the lower the effective rate, and vice versa. As explained in Chapter 10 of our report, the ACCC found that there were significant changes in energy consumption in 2020-21 as a result of the COVID-19 restrictions. Between the first quarter of 2019-20 and the first quarter of 2020-21, Electricity use for residential customers increased by 13% and fell for business customers by 15%.

Source: ACCC, Appendix E, Supplementary spreadsheet with billing data and figures, May 2021, Residential effective prices (Supplementary Table A1.4) and SME effective prices (Supplementary Table A7.4); and ACCC, Inquiry into the National Electricity Market, May 2021, p 15.

6.2.1 Different price changes for market and standing offers

Figure 6.2 and Figure 6.3 show differences between the price changes for standing and market offers.

The changes in standing offers reflect the changes to the DMO prices set by the AER. As discussed elsewhere in this report, the DMO caps the prices for standing offers, and so most retailers set their standing offer in line with the DMO.

The DMO price is set above the level of efficient costs to provide the opportunity for retailers to compete, and to provide incentives for customers to participate in the market. Its purpose is to act as a 'reasonable fall-back position for those not engaged in the market.[86] While the changes in the DMO are intended to be broadly reflective of the expected changes in costs, the level of the DMO will be different to the efficient costs actually faced by retailers. In particular, the wholesale energy cost estimate used by the AER is the costs of the hedging strategy to meet the 95th percentile of the distribution of spot price outcomes, which is likely to overestimate retailers' costs.[87]

In addition, standing offer price changes may lag behind market offer changes. The AER must finalise the DMO in April for the next financial year[88] and then prices must apply for the whole year.[89] In contrast, retailers can update the market offers at any time to reflect changing market conditions.

6.3 The recent price reductions reflect falling wholesale costs

The falling retail prices broadly reflects the changes in the costs of supply. Therefore, we do not consider that a detailed review of prices and margins is required.

The 2020-21 price reductions were driven by falling wholesale costs. The other major cost component, network costs, increased by around 2% for typical residential customers.

6.3.1 Wholesale costs

Wholesale costs are relatively volatile. They currently make up around 30% of retailers' costs (based on retailers' costs of their lowest market offers).[90]

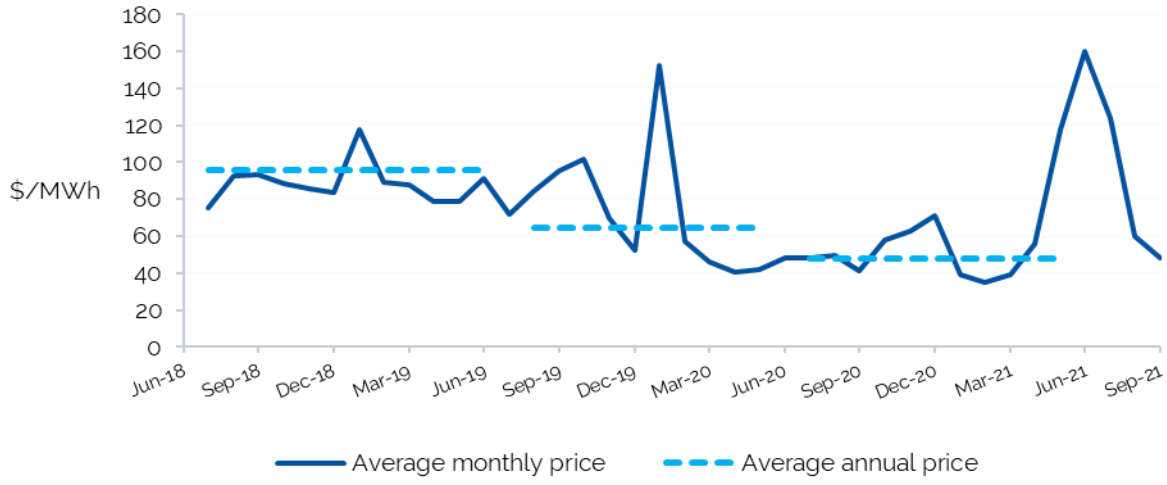
Wholesale prices are set for each half hour of each day on the spot market. Figure 6.4 shows that the average annual wholesale spot price fell around 25% during 2020-21, from $65/MWh in 2019-20 to $48/MWh. The monthly average fell as low as $35/MWh in February 2021.

However, prices spiked in the last quarter of 2020-21, which were at their highest level since 2007 for this time of year. Between March and June, spot prices exceeded $5,000/MWh in NSW 8 times.[91] These high prices were largely driven by a high number of planned and unplanned coal generator outages,[y] as well as line outages around the Vic-NSW interconnector that limited NSW's ability to import cheaper generation from Victoria. Over this period, more expensive gas and hydro generation was needed to meet demand, and gas and coal prices were also high. At the same time demand increased with some very cold days with the beginning of winter.[92]

Prices have since reduced (Figure 6.4) and are expected to stay low over 2021-22 and 2022-23 (see Figure 6.5). The reductions in prices are being driven by the increase in supply of renewable energy, mainly rooftop solar.

In response to our Draft Report, a stakeholder submitted that the reduction in solar feed-in tariffs offered by retailers is likely to increase their bill as they would receive reduced earnings from their solar exports.[93] Solar feed-in tariffs are not regulated and so retailers are free to set their own tariffs. However, it is reasonable to expect that the value of solar exports would decrease as an increasing amount of excess solar generated electricity is supplied into the market. The main benefit to customers from rooftop solar is the savings from using the solar generated electricity instead of purchasing electricity from the grid (see IPART's solar feed-in tariff benchmarks review 2021-22 to 2023-24 for further detail).

Figure 6.4 Average wholesale spot prices since June 2018

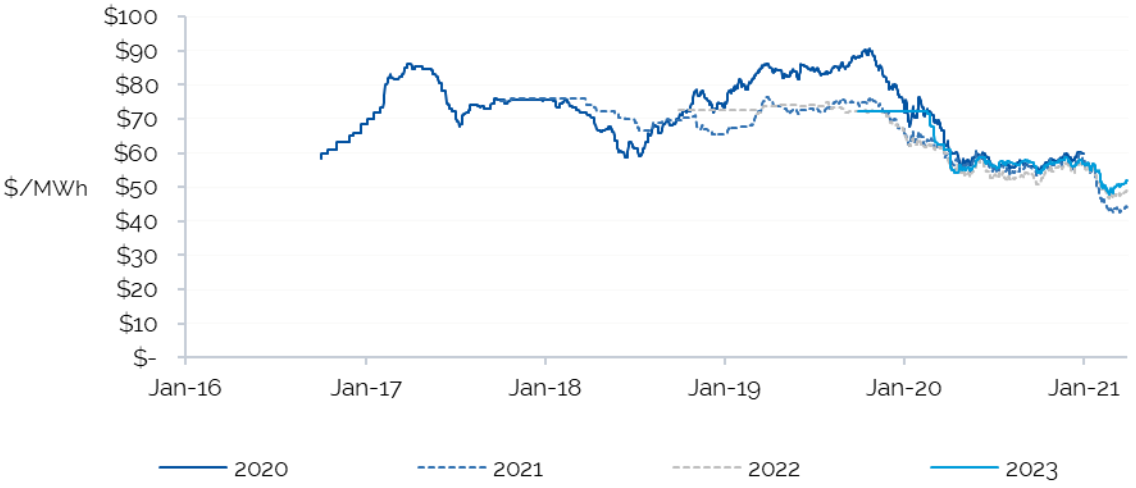


Source: AEMO Average price data.

[y] 80% of high prices across the NEM occurred in the 3 weeks following the failure of the Callide C power station on 25 May. This exacerbated the planned outages at Bayswater and Vales Point power stations, which were offline for almost the whole quarter due to maintenance.

The impact of wholesale costs on retail prices can be difficult to measure due to the different ways that retailers manage their wholesale costs. While wholesale prices are set on the spot market, retailers manage these costs by purchasing contracts for a significant portion of their demand in advance based on their expectations of these prices. Many retailers build up this "hedge book" over two years in advance. This means that changes in the daily spot prices don't necessarily immediately impact retailers' margins or consumer prices. For example, Figure 6.5 shows that during 2018 and 2019, baseload futures contracts for 2020-21 were being sold for around $75/MW, which was much higher than the ultimate average spot price of around $50. These are financial instruments traded on the ASX and reflect an agreement to purchase electricity at an agreed price at a future date.

Figure 6.5 Prices for calendar year base futures contracts (calendar years)



Source: AER, Data - State of the energy market 2021 - Chapter 2 National Electricity Market, Figure 2.27 - Prices for calendar year base futures.

By September 2021, baseload futures had increased by around 20% since the March data shown in Figure 6.5 above. Between July and September 2021, base load futures contracts have averaged around $60 to $65 per MWh for the next 2 years. While these prices have increased, they do not indicate that participants are currently anticipating a significant market impact from the closure of Liddell power station over 2022 and 2023.

6.3.2 Network costs

Network costs are the costs of transporting electricity from the generators to customers via the transmission and distribution networks. Transmission costs make up around 5 to 10% of customers' bill and distribution costs make up around 35% (based on retailers' costs of their lowest market offers).[94] The AER sets the revenue that network operators can earn every 5 years:

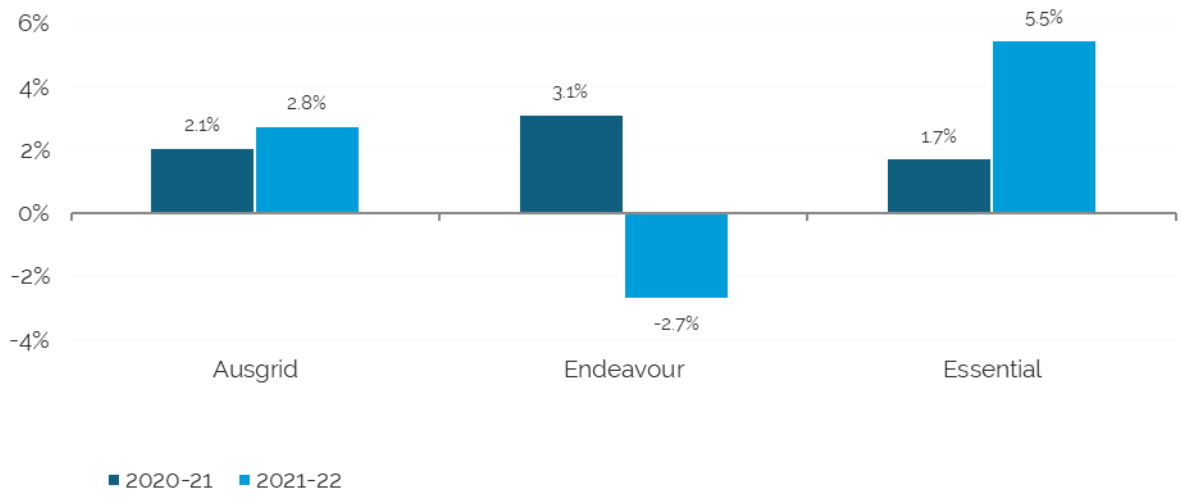
- In 2018, the AER set the revenue that can be earned by Transgrid, which provides transmission services in NSW. The AER estimated that transmission costs would increase by around $9 a year per household each year between 2018-19 and 2022-23 as a result of its decision.[95]

- In 2019, the AER set the revenue that can be earned for the distribution network operators. As a result of its decisions, it estimated that network costs would fall by $70[96] and $25[97] for typical households in the Ausgrid and Endeavour networks respectively by 2023-24 (compared to 2018-19). It estimated costs for the Essential network would increase by $111 for the same period.[98]

After the AER has decided how much revenue the network operators can earn, the networks can choose how to set their prices to recover these costs. Even if the AER requires the networks' total revenue to go down, the network operators can increase some prices, and offset these with other price reductions. The price lists are approved by the AER each year.

We have used these network price lists to calculate the change in network costs for a typical customer on an 'anytime' tariff. Figure 6.6 shows there were mostly modest increases for 2020-21 and 2021-22 (around 2 to 5%), except for the Endeavour network in 2021-22, where network costs fell by almost 3%.

Figure 6.6 Change in network costs 2020-21 and 2021-22 (anytime tariff)



Source: Network price lists.

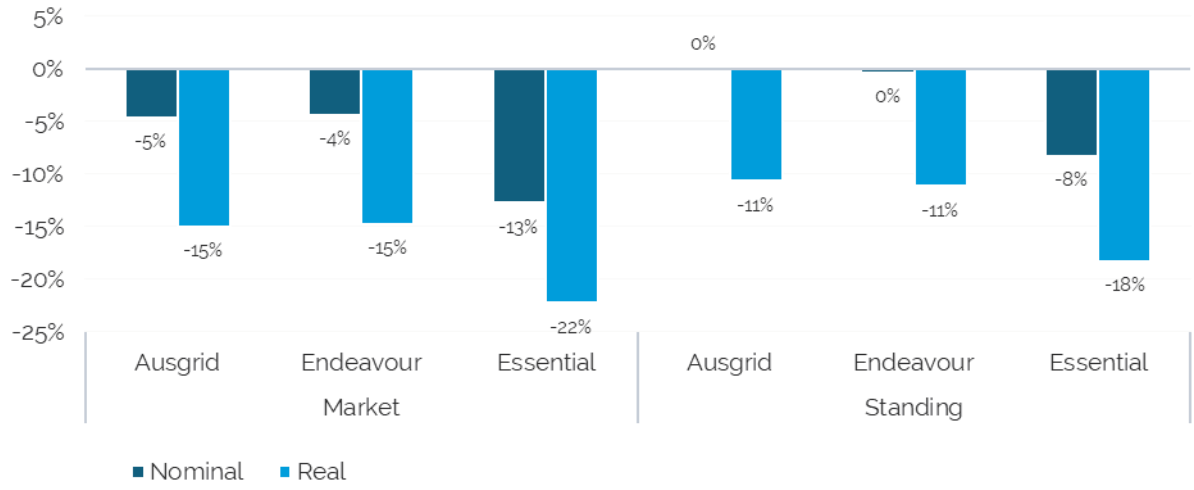
6.4 Prices have fallen since IPART has been monitoring prices

As explained in Chapter 1, IPART stopped setting retail electricity prices from July 2014 when competition was found to be sufficiently developed. Since then, we have been monitoring the prices in the market. Figure 6.7 shows that most prices have fallen during this time. All prices have fallen in real terms (when the impact of inflation is taken into account).

The largest price reductions were in the Essential network, where market prices have fallen by 13% since 2013-14 (22% real), and standing offer prices have fallen by 8% (18% real). This is due to significant reductions in network costs (see Figure 6.8 below).

In the Ausgrid and Endeavour networks, market prices have fallen by around 5% (15% real) since 2013-14, while standing offers are almost the same as the regulated prices in 2013-14 (an 11% price reduction in real terms).

Figure 6.7 Change in residential prices since 2013-14

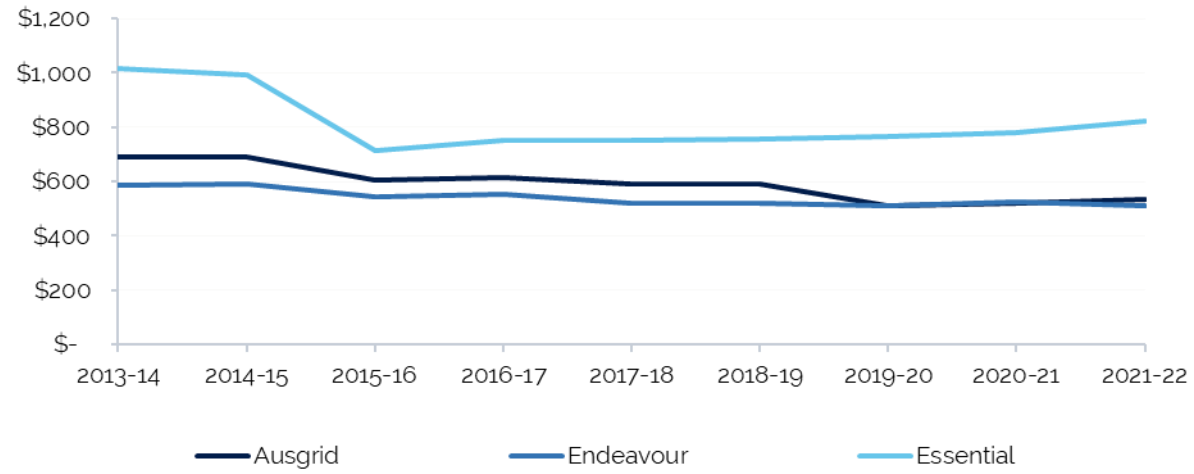


Source: Offers available on EnergyMadeEasy,

The reduction in prices over this longer period mainly reflects reductions in network costs that occurred in 2015-16 (Figure 6.8). Figure 6.8 shows that network prices fell by around 10% for a typical residential customer in 2015-16 for the Ausgrid and Endeavour networks, and around 30% in the Essential network area.

These reductions were subsequently more than offset by large increases in wholesale prices, which peaked in 2017-18.[99] Wholesale prices increased due to high coal and gas prices, and the closure of Hazelwood power station in March 2017.[100] Since then, wholesale prices have fallen as the supply of renewable energy sources has grown – particularly rooftop solar.[101]

Figure 6.8 Network costs for residential customer since 2013-14 (4,125 kWh electricity purchased, by network area)



Source: Network price lists.

Findings

6. Prices in the market trended down in 2020-21.
   - The median market offer fell by around 5%.
   - The median standing offer was relatively unchanged.

7. Price changes broadly reflected the underlying changes in costs in 2020-21. A detailed review of prices and profit margins is not required.

8. IPART began monitoring the market when competition was found to be sufficiently competitive to protect customers. Prices have fallen in real terms since IPART began our monitoring role:
   - In the Essential network, market prices have fallen by 22% in real terms, and standing offer prices have fallen by 18% since 2013-14.
   - In the Ausgrid and Endeavour networks, market prices have fallen by around 15% in real terms, and standing offers are 11% lower compared to 2013-14.

7 Prices for time-of-use offers

This chapter compares time-of-use market offers against single rate market offers for 2020-21. Time-of-use offers are available to customers with interval or smart meters which are capable of recording usage data at least every 30 minutes.

Retailers typically offer three different pricing periods (which may vary for different times of the year):

- peak - more expensive usage prices apply, usually during the afternoon and evenings on weekdays[z]
- shoulder – less expensive usage prices apply, usually during the middle of the day and late evenings, and during the weekends
- off-peak – least expensive usage prices apply, usually overnight and early morning, and during the weekends.

The exact pricing periods offered differ between retailers and distribution networks – we provide further detail on the different pricing periods in Box 7.1.

These different pricing options better reflect the costs of supplying electricity. They also provide an incentive for customers to save money by shifting usage away from expensive peak periods to the cheaper shoulder and off-peak periods. This can help reduce costs overall. For example, network upgrades may no longer be required or may be delayed if peak use falls in that part of the network.

Box 7.1 Time-of-use pricing periods

We provide below each network service provider's time-of-use pricing periods. Retailers are free to set their own periods for their time-of-use offers. However, most adopt the periods set by each of the network service providers.

Ausgrid

- Peak period
  - 'Summer' (1 November to 31 March): 2pm to 8pm on business days
  - 'Winter' (1 June to 31 August): 5pm to 9pm on business days
- Shoulder period
  - Summer: 7am to 2pm and from 8pm to 10pm on business days
  - Winter: 7am to 5pm and from 9pm to 10pm on business days
  - Applies from 7am to 10pm on all other business days

[z] Shoulder/off-peak prices are applied for usage during the afternoon/evenings on the weekend.

Box 7.1 Time-of-use pricing periods

  - Applies from 7am to 10pm on both weekends and public holidays
- Off-peak period – applies from 10pm to 7am daily.[102]

Endeavour Energy

- Peak period – applies from 4pm to 8pm on business days
- Off-peak period – applies at all other times.

For Obsolete tariffs[a]:

- Peak period – applies from 1pm to 8pm on business days
- Shoulder period – applies from 7am to 1pm and 8pm to 10pm on business days
- Off-peak – applies at all other times.[103]

Essential Energy

- Peak period – applies from 5pm to 8pm on weekdays[b]
- Shoulder period – applies from 7am to 5pm and 8pm to 10pm on weekdays[b]
- Off-peak period – applies at all other times.[104]

For Obsolete tariffs[c]:

- Peak period – applies from 7am to 9am and 5pm to 8pm on weekdays
- Shoulder period – applies from 9am to 5pm and 8pm to 10pm on weekdays
- Off-peak period – applies at all other times.

a. On 1 July 2019, Endeavour Energy's new time-of-use periods came into effect to better reflect when network usage peaks. The pricing periods under 'Obsolete tariffs' are only applicable to existing customers as at 1 July 2019,
b. If a public holiday falls on a weekday then it is treated as a weekday.
c. On 1 July 2017, Essential Energy's new time-of-use periods came into effect to better reflect when network usage peaks. However, the 'Obsolete tariffs' will continue to apply to customers on Type 5 meters with time-of-use capability (Essential Energy considers that it cannot cost effectively manually reprogram these type of meters for its customers).

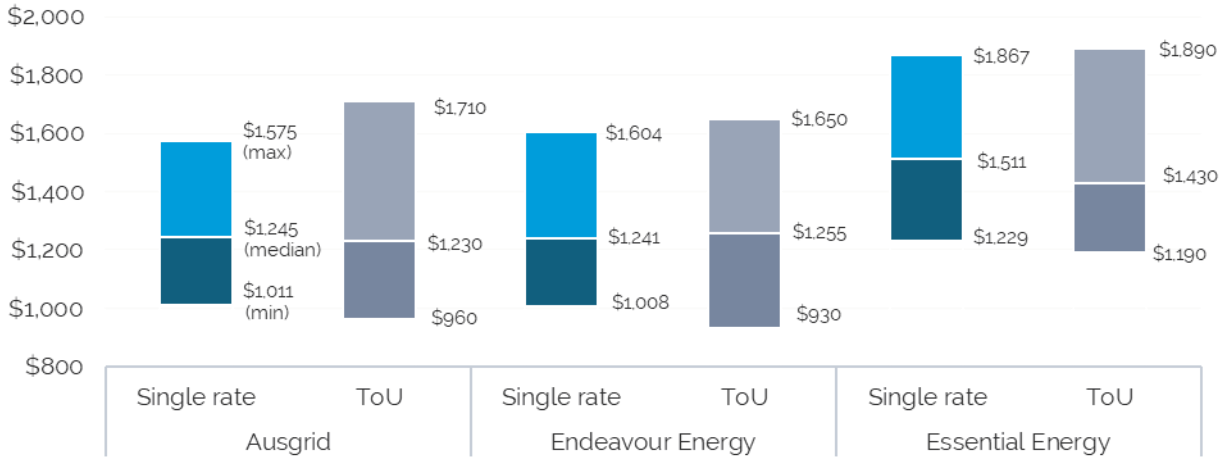
7.1 A typical customer could be better off under time-of-use market offers

In 2020-21, there was a greater spread of offers for time-of-use offers compared to single rate offers. We found that customers could be better off under a time-of-use offer depending on the offer chosen and when they use electricity throughout the day.

Figure 7.1 compares single rate and time-of-use offers across the three distribution networks for a typical customer using 4,125 kWh of electricity a year. The median time-of-use offers are similar to the median single rate offers in Ausgrid's and Endeavour Energy's network area, and about $80 (or 5%) lower than the median single rate offer in Essential Energy's network area.

However, the lowest time-of-use offers (Ausgrid: $960, Endeavour Energy: $930, Essential Energy: $1,190) are all lower than the single rate offers across the three network areas (Ausgrid: $1,011, Endeavour Energy: $1,008, Essential Energy: $1,229) – about 5% lower on average.

Figure 7.1 Comparison of single rate and time-of-use market offers 2020-21 (4,125 kWh)



Note: To calculate the time-of-use offers we used the average of the AER's residential usage profiles - available for retailers to use to compare their time-of-use offers against the DMO.

Source: IPART analysis using data from EnergyMadeEasy, June 2021.

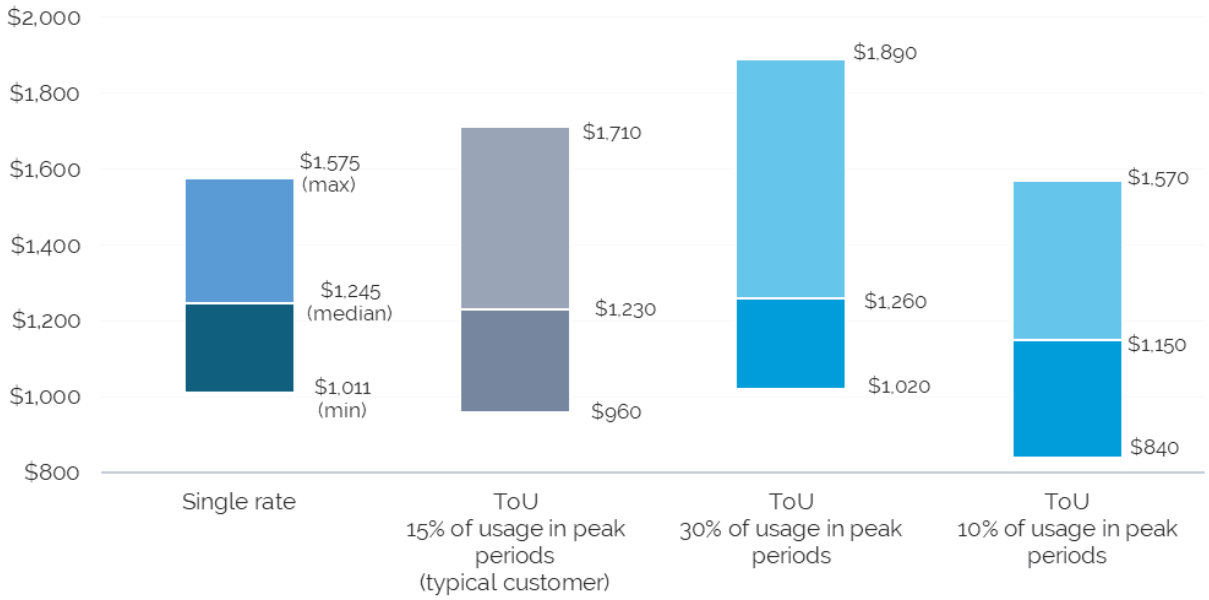
7.2 Customers who use less electricity in peak periods save more

Figure 7.2 compares potential bill outcomes for different usage profiles under the time-of-use market offers available in the Ausgrid network area. The overall consumption is the same in each scenario, but the times when customers use their electricity are different. As expected, customers who have higher usage during peak periods could face a higher bill compared to those with lower usage during peak periods.

Figure 7.2 shows that customers with higher usage in peak periods could be better off under a single-rate offer. In contrast, a customer using 4,125 kWh per year with lower usage during peak periods (10%) could save around $170 on the lowest time-of-use offer compared to under the lowest single rate offer ($840 compared to $1,011).

We saw similar outcomes in Endeavour Energy's and Essential Energy's network areas.

Figure 7.2 Comparison of single rate and time-of-use market offers in Ausgrid's network area under different usage profiles 2020-21 (4,125 kWh)



Note: In Ausgrid's network area, peak tariffs generally apply from 2-8pm on business days during the summer period and from 5-9pm on business days during the winter period. Peak tariffs apply to about 10% of the total hours in a year in Ausgrid's network area.

Source: IPART analysis using data from EnergyMadeEasy, June 2021.

Finding

9. Some customers could be better off under time-of-use offers depending on the offer chosen and when they use electricity throughout the day. Customers who use less electricity in the peak periods can save more.

8 Impact of the default market offer (DMO)

As explained in Chapter 6, the "Default market offer" or "DMO" is a cap on bills at a specified level of consumption that a retailer can charge customers. The AER introduced the DMO on 1 July 2019 and resets it every year.

A different DMO applies for each network areas across most regions in Australia (it does not apply in Victoria and Tasmania where the states have their own form of price regulation). The AER sets the DMO for each network that should broadly reflect the costs it expects retailers to incur in supplying electricity to customers.

The intent of the DMO is to:

- bring down standing offer prices which are unjustifiably high, and
- make it easier for customers to compare electricity plans by requiring all retailers to show discounts with reference to the DMO (i.e. discounts off the same 'reference price').[105]

This chapter considers the impacts of the DMO on prices and competition since its introduction.

8.1 Standing offer prices have fallen

Figure 8.1 shows how prices have changed since the introduction of the default market offer, using residential any-time offers in the Endeavour Energy network to illustrate. It shows that prior to 2019-20, there was a large range of standing offers in the market. This range has since narrowed significantly, with most retailers now setting their standing offers equal to the DMO. Some retailers offer slightly lower rates.

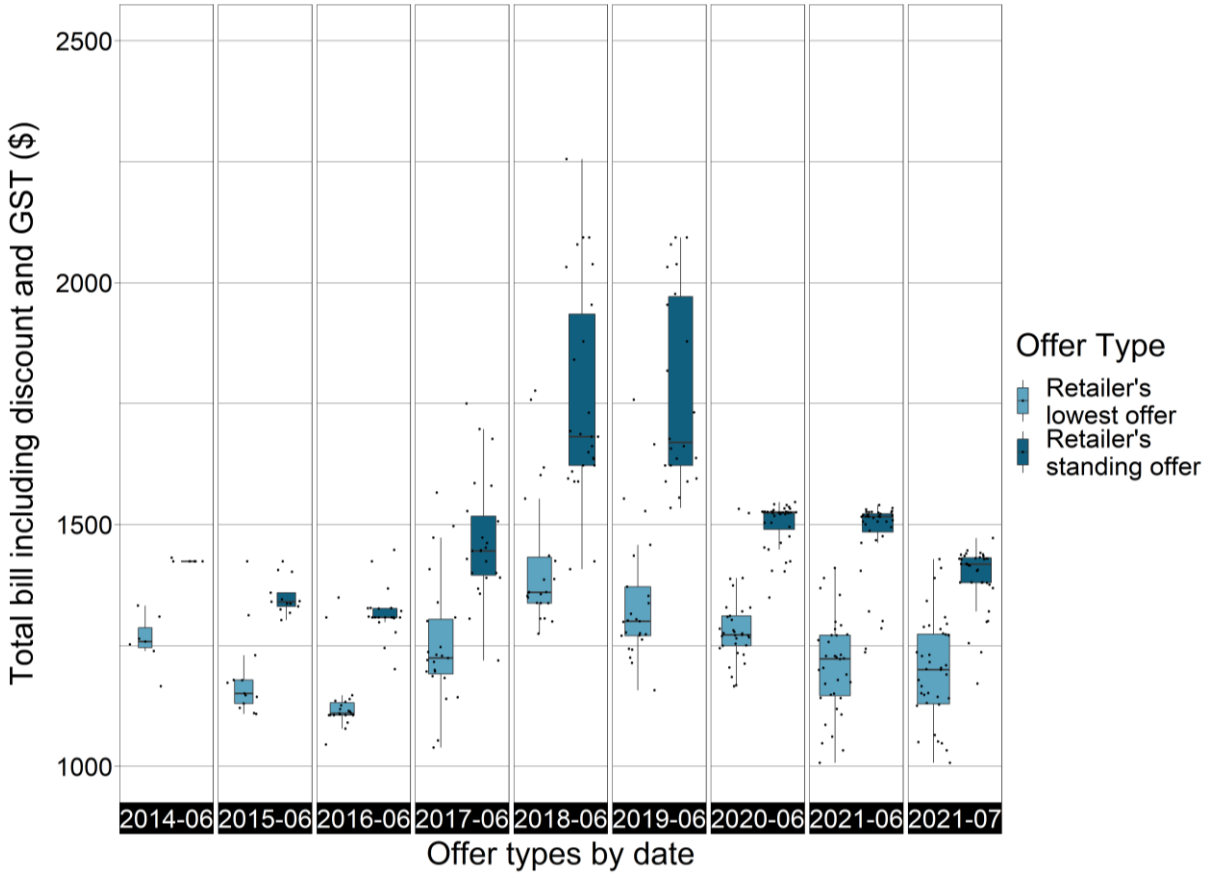
Figure 8.1 also shows a significant reduction in standing offer prices in 2019-20 when the DMO was introduced. The median standing offer fell by 9% to 19% (depending on network area, and customer type (business/residential)). The 75th percentile price fell by around 25% for residential customers and 17% to 24% for business customers (depending on network area). These reductions in prices was much greater than the change in the median of retailers' lowest market offers during the same period (reductions of up to 3%).

The lower standing offer prices has been maintained in 2020-21.[aa]

Appendix B includes the charts of the Ausgrid and Essential Energy networks for business and residential customers.

[aa] Compared to the standing offer prices in the two years before the DMO was introduced.

Figure 8.1 Distribution of residential offers in the Endeavour Energy network (4,215 kWh of electricity purchased)



Note: Any-time offers only.

Source: Offers available on EnergyMadeEasy

Finding

10. Median standing offer prices fell by between 9 and 19% when the default market offer ("DMO") was introduced in 2019-20.

8.2 The spread of offers narrowed in 2019-20, before increasing

As a result of the falling standing offers, the difference between the standing offers and market offers reduced significantly in 2019-20. The average difference between each retailer's lowest offer and standing offer narrowed from around 23% to 16% compared to the previous year.

The spread of retailers' lowest offers also reduced in 2019-20. This is shown in Figure 8.1 above by the size of the lighter blue box, which halved compared the previous years. The blue box shows the bills at the 25th, 50th, and 75th percentiles.

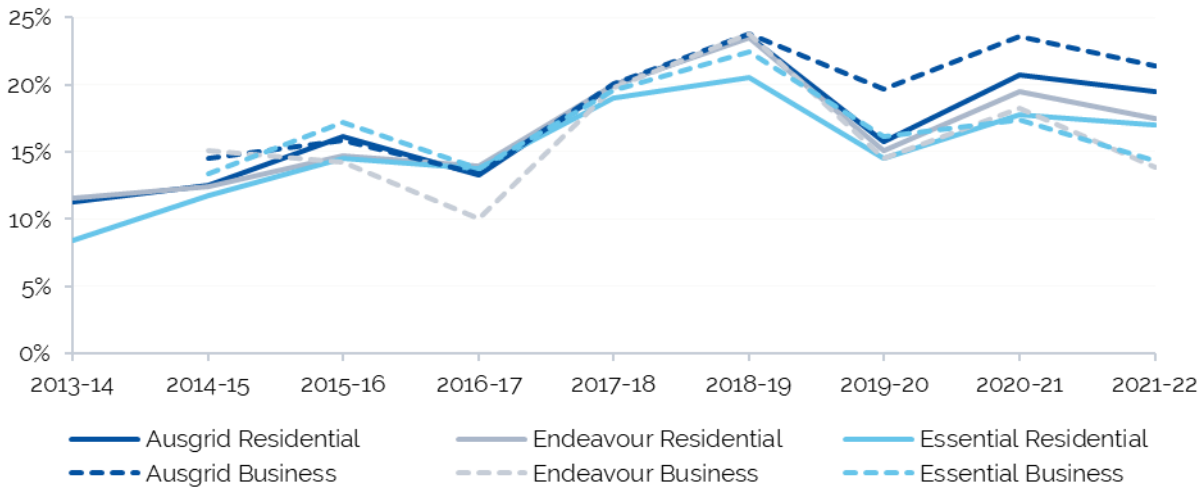
Figure 8.1 shows that the lowest offers fell overall in 2019-20. However, last year we reported that the reduction in the spread of offers may indicate that the DMO may have caused the lowest market offers to be higher than what they otherwise would have been.[106] Preventing retailers from charging higher standing offer prices to some customers may reduce the available revenue to fund larger discounts for other customers.

The range of offers in 2020-21 increased, which suggests that this has not be the case. In particular:

- The range of retailers' **lowest** offers increased similar to the range in 2017-18 and 2018-19. This is also seen in the July 2021 data (Figure 8.1)
- The average difference between retailers' lowest offers and standing offers increased closer to 20% overall – ranging from an average of 17% to 24% depending on the network and customer type (business/residential) (Figure 8.2).

On 1 July 2021, standing offers fell by around 5% while market offers stayed steady. As a result, the difference between standing offers and the lowest offers reduced again to 14% to 21%, depending on network and customer type. This reduction may be temporary as retailers may be slower to adjust their market prices. We will monitor the impact during the 2021-22 year in our report next year.

Figure 8.2 Average difference between each retailer's lowest and standing offer (as a percentage of the standing offer)



Note: Any-time offers only. We don't have data on market prices for business customers for 2013-14.

Source: Available offers on EnergyMadeEasy.

Finding

11. The spread of offers increased in the market in 2020-21. The average difference between a retailers' lowest and standing offers was around 20% up from 16% in the previous year.

8.3 Impact on customer engagement and innovation

The intent of the DMO to ensure that disengaged customers do not pay excessive prices. However, it could result in some fewer customers actively shopping around because they believe that they are paying a 'fair' price for energy – even though they could switch onto a cheaper market offer. In turn, a smaller market for 'active' customers could lead to less vigorous competition and innovation, with fewer retailers competing in this market. The requirement for retailers to compare their offers to the DMO may also stifle innovation for non-average customers. This is explained in more detail below.

Overall, there appears to be no evidence of lower customer engagement during 2020-21. As discussed in Chapter 4, switching rates were similar to before the DMO was introduced, and customer sentiment improved from the previous year. As discussed in Chapter 3, there are increasingly innovative offers in the market.

8.3.1 Requirement to compare offers to the DMO

Prior to the introduction of the DMO, some retailers would set very high standing offer prices so they could advertise very large discounts from these rates. As a result, the bills for the offers with the largest discounts could be higher than the offers with low or no discounts. So that offers are comparable, retailers are now required to compare their offers to the DMO, which serves as a common benchmark.

The DMO is set at a level for the average annual consumption in each network areas. This makes offers much easier for average customers to compare offers. However, it can result in offers designed for other different patterns of consumption comparing poorly, even if these offers would provide the best value for these type of customers. Box 8.1 provides an example to illustrate this. As a result, retailers may be less likely to design offers that benefit non-average customers.

Last year, the AEMC reported that some retailers found it difficult to advertise some offers while meeting the requirements to compare market offers with the DMO. These offers include spot market pass through offers or offers that included a feed-in tariff for solar. Because the feed-in tariff component could not be accounted for in the comparison to the reference price, these bills can appear higher than what a customer is likely to actually pay.[107]

The ACCC monitors whether retailers have correctly compared their offers to the DMO. It states on its website that retailers who plan to offer niche products (e.g. subscription type offers[bb]) should contact the ACCC to discuss the communication of these types of offers.[108]

The Department of Industry, Science, Energy and Resources is currently reviewing the Competition and Consumer (Industry Code- Electricity Retail) Regulations 2019 which introduced the DMO.[109] We understand that stakeholders have raised concerns about how the DMO should apply to innovative offers in the future.

[bb] Where consumers pay a fixed dollar amount each month (or regular period) for a certain amount of electricity consumption up to a specified threshold.

Box 8.1 Example of how headline discount can vary depending on assumed level of consumption

This example shows three offers that are tailored to different households: small, medium, and large. Compared to the example DMO, offer 1 would have the highest headline discount rate at 10%. However, the best offer for each customer depends on the household consumption.

The bolded cells in the table below show the best offers for each household size. It shows that offer 1 is best for an average household. However, a low consumption household (2,500 kWh per year) would be best off on offer 2, which has a low supply charge, and a higher usage tariff. A high consumption household (using 9,000 kWh per year) would be better off on offer 3, which has a highly daily usage charge, and a low consumption tariff.

Offer	**Daily supply charge**	**Consumption tariff**	**Bills for different households Consumption (kWh pa)**			**Bill compared to DMO**
	cents	c/kWh	**Low (2,500 kWh)**	**Average (4,200 kWh)**	**High (9,000 kWh)**	
Example DMO				$1,600		
Offer 1	86	27	$989	**$1,448**	$2,744	-10%
Offer 2	24	34	**$938**	$1,516	$3,148	-5%
Offer 3	300	16	$1,495	$1,767	**$2,535**	10%

8.4 Mixed views on whether the DMO is at the right level

In response to our Draft Report, PIAC submitted that the DMO has provided positive outcomes for consumers. However, it considered that a DMO that reflected efficient costs would be more beneficial for consumers and provide retailers with an acceptable margin.[110]

We support the current approach, which balances:

- protecting consumers from higher standing offer prices
- setting prices at a level that ensures retailers and customers have an incentive to engage in the market to drive prices down over the longer term.

Setting prices equal to the current efficient prices provides less incentive for retailers and customers to engage in the market. In our view it is likely to reduce innovation and competition leading to higher prices over the longer term. A lower DMO also increases risks to retailers if there are significant changes in costs after the DMO has been set. A spike in wholesale costs could threaten the viability of retailers.

Retailers have told us as part of this review process that the DMO should be higher to support longer term outcomes. Retailers considered that the DMO should include additional allowances for:

- Regulatory costs associated with increasing compliance and obligations. Some retailers have advised that they have reallocated resources from their R&D teams to manage the regulatory changes.
- Increased bad debts from the COVID-19 impact and the inability to disconnect from AER's Statement of Expectations.
- Installation of smart meters.

These concerns were similar to those previously raised to the AER for consideration in setting the DMO for 2021-22. The AER decided to not make any adjustments to the DMO price to reflect increases in retailers' operating costs under the 'step-change' framework.[111] Under the step change framework, the AER assesses whether the DMO policy objectives would be achieved if an adjustment was not made.

It considered that the increased retailer costs due to impact of COVID-19 were not significant enough to warrant an adjustment, and that the penetration of advance meter costs is too low to warrant an allowance. It also considered that incremental cost changes due to new regulatory requirements would generally be compensated by CPI indexation in calculating the DMO.[112]

The AER applied a 'stress test' increase of $35 to retailer costs (as an estimate of the cumulative impact of additional retailer costs). Even accounting for these, the AER estimated that the buffer in the DMO provides around 11% to 15% margin across retailers in the Essential, Endeavour and Ausgrid network. It considered that this buffer was sufficient to absorb increases in costs and concluded that the DMO price continues to meet the policy objectives.[113]

The AER is currently reviewing its DMO methodology for its 2022-23 DMO Determination. It published its options paper in October 2021 and is seeking feedback on various matters such as:

- its approach to estimating retail costs and how they should change from year to year
- how many years its methodology should apply for, for example, 3 or 5 years
- its approach to forecasting wholesale electricity costs.

The AER's draft 2022-23 DMO Determination will be released in February 2022 for consultation and finalised in May 2022 to come into effect on 1 July 2022.[114]

9 Prices for customers in embedded networks

Embedded networks are private electricity networks which supply multiple homes or businesses that are connected to the network through a single parent meter. Examples can be found in residential complexes, retirement villages, residential parks, shopping centres and office buildings. The owner of the site buys energy in bulk from a retailer and then on-sells the electricity to the different occupants at the site.[115]

Embedded network owners that on-sell electricity to the occupants of the embedded network are known as 'exempt sellers' because they do not need to become authorised by the AER as energy retailers.[cc] However, they do need to hold a valid exemption from the AER and follow the AER's exempt seller guideline.[116] If a consumer purchases their energy from an exempt seller, then they are indirectly protected by the DMO. This is because the AER's exempt seller guideline limits the maximum price to the standing offer that a local area retailer would charge customers.[117]

Owners of embedded networks are also able to outsource energy services to an authorised retailer. However, in these situations, consumers are not protected by the DMO. This is because customers of embedded networks do not fall under the definition of 'small customers' to which the DMO applies.[dd] This also means that there is no requirement for retailers to reference their embedded network offers against the DMO. In these circumstances, consumers in the embedded network face unregulated electricity prices. The Department of Industry, Science, Energy and Resources is consulting on whether the DMO should be extended to consumers in embedded networks as part of its review of the Competition and Consumer (Industry Code- Electricity Retail) Regulations 2019.

We have investigated prices for embedded networks where services are provided by authorised retailers to help us understand whether they are likely to be exceeding the DMO. As there is no requirement for retailers to report their prices for embedded networks, we used the offers available on EnergyMadeEasy and also requested prices from retailers on a voluntary basis.

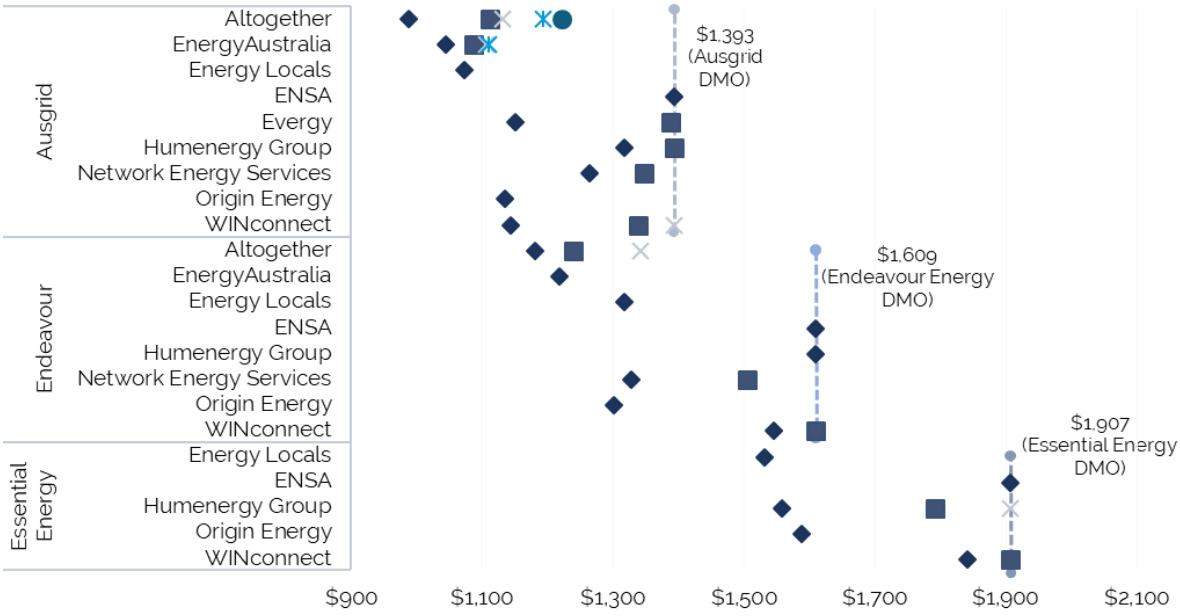
[cc] Some exempt sellers can be 'deemed exempt' (do not need registration with the AER and apply to small-scale supply arrangements where the costs associated with exemption registration would outweigh the benefits of increased regulation e.g. selling or supplying energy to short-term accommodation in a caravan park) or 'registered exempt' (required to be registered with the AER and apply to energy supply activities that the AER considers needs greater transparency and oversight e.g. selling or supplying energy to permanent residents of a caravan park).

[dd] Under the Competition and Consumer (Industry Code – Electricity Retail) Regulations s. 6(2), the DMO applies to 'small customers' which are residential customers, residential customers with a controlled load and small business customers. However, Regulation s. 6(3)(c) states that a consumer is not a 'small customer' if the supply is by means of an embedded network.

9.1 Embedded networks could negotiate or seek better electricity offers

From the information available, we did not observe any embedded network offers for small customers that were above the relevant DMO (at the DMO consumption level) (Figure 9.1 and Figure 9.2).[ee] Most offers were below the DMO. However, these offers do not represent the full range of prices actually paid by embedded network customers.

Figure 9.1 Embedded network (single rate) offers – Residential (August 2021)

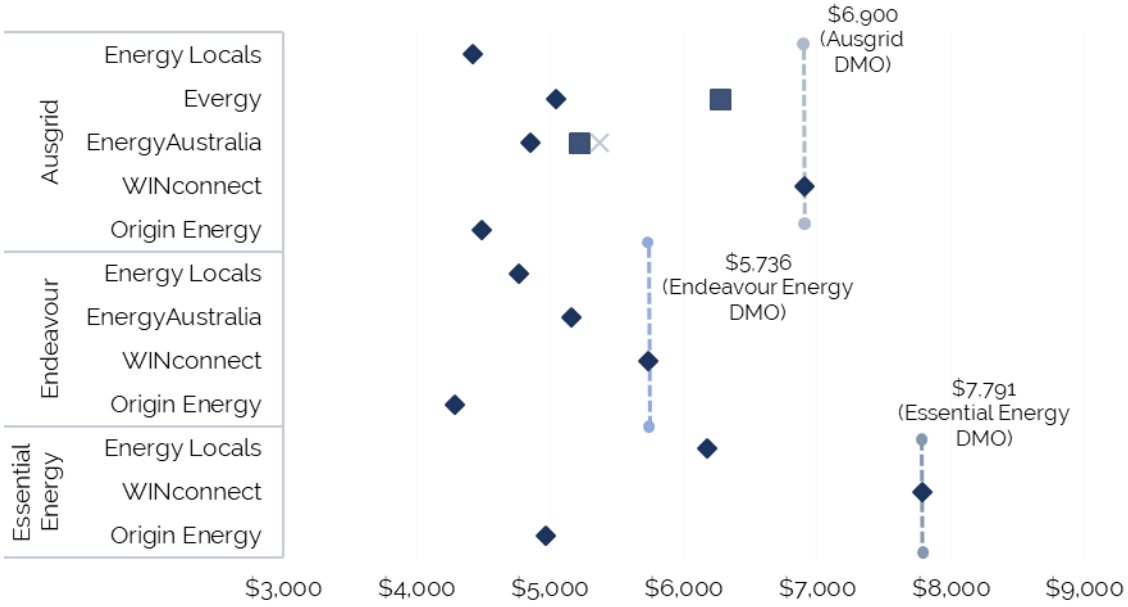


Note: Some of the offers available are specific to a particular embedded network, whereas others are standing offers available to any embedded network within the distribution area. We used the DMO consumption levels to calculate bills.
There is limited data on the number of embedded network customers in NSW. Some stakeholders have reported that it could exceed 500,000 customers across the NEM (AEMC, Updating the regulatory frameworks for embedded networks, June 2019, p ii.).

Source: Voluntary responses to data requests and EnergyMadeEasy (available as parked offers).

[ee] Altogether, WINconnect, Energy Locals, Humenergy Group, EnergyAustralia and Evergy's offers were available on EnergyMadeEasy. Origin Energy, Network Energy Services and ENSA provided their prices voluntarily.

Figure 9.2 Embedded network offers (single rate) – Small business (August 2021)



Source: Voluntary responses to data requests and EnergyMadeEasy (available as parked offers).

Figure 9.1 and Figure 9.2 also show that offers vary considerably with some retailers only listing rates that are equal to the DMO. However, they may charge lower rates that are not publicly available as they offer to match competitors' rates. In discussions, retailers advised that they consider the embedded network market to be competitive and that Body Corporates/Owners Corporations can negotiate better deals or switch providers.

Where apartment/unit owners can represent their interests on the Body Corporate, there is an incentive to negotiate or switch providers for a better deal as they would personally benefit from the lower rates. Based on Figure 9.1 and Figure 9.2, there may be some embedded networks on rates that are equal to the DMO or could benefit from negotiating/switching to a better offer. Given that the key benefit of embedded networks is the ability to purchase electricity in bulk at discount rates, customers should be on offers lower than would otherwise be available to them individually. However, there are reports of Body Corporates being locked into long-term supply agreements at uncompetitive rates.[ff] The NSW Government is reviewing whether protections for embedded electricity networks should be increased so they are not locked into long-term supply agreements. This is discussed below.

[ff] In its 2017 review of the regulatory arrangements on embedded networks, the AEMC was informed of a situation in a new apartment block where at the first annual general meeting, the owners corporation was formed and then required by the developer to sign a 10-year fixed term contract with a company arranged by the property developer for utilities, including electricity. The electricity rates turned out to be higher than the local standing offer. AEMC, Review of regulatory arrangements on embedded networks – final report, November 2017, p 41.

Where all tenants are leasing the premises within the embedded network, the owner/s do not necessarily have an incentive to negotiate with retailers for a better rate. Customers in these situations could be better off with access to retail competition. The AEMC has previously conducted a review into updating the regulatory framework for embedded networks, which could benefit all customers in embedded networks. This is discussed further in the next section.

9.2 Improved customer protections are needed for embedded network customers

The AEMC has recommended changes to make it easier for customers in embedded networks to access retail competition

In 2017, the AEMC completed a review of the regulatory frameworks for embedded networks following substantial growth in the number of embedded networks registering to be exempt sellers with the AER. Its recommendations included:

- improving individual consumer access to retail market competition in embedded networks by capturing all embedded network customers in AEMO's market systems and by standardising network billing arrangements between embedded networks and NEM retailers
- elevating embedded networks to the national energy framework to ensure that customers receive the same level of consumer protections as customers that interact directly with their retailer.[99] [118]

In 2019, the AEMC recommended specific legislative changes to implement the advice it provided in its 2017 review. Its proposed legislative changes are currently with the COAG Energy Council.[119]

Over 2020-21, EWON received about 80 to 130 complaints per quarter from embedded network customers and most of these (about 80%) related to services provided by authorised retailers.[120] The most common issues were about high bills and difficulty leaving embedded networks to access retail competition.

The AER is currently reviewing the Retail and Network Exemption Guidelines

Under the National Energy Retail Law, the AER is responsible for administering retailer authorisations, regulating exempt persons and determining appropriate exemption conditions.[121] The AER is currently reviewing the Retail and Network Exemption Guidelines which apply to embedded networks.[122]

---

99 The National Electricity Retail Law (NERL) and National Energy Retail Regulations (NERR) that apply to retail customers do not apply to consumers in embedded networks. This is because the tripartite relationship between retailer, customer and local network service provider does not translate in the context of embedded networks, as there is no local network service provider at the child connection point for the consumer in the embedded network (instead there is the embedded network service provider). For example, the AER has less ability to monitor and enforce requirements such as proper notice for planned interruptions by embedded network service providers. AEMC, Review of regulatory arrangements on embedded networks – final report, November 2017, pp 144-145.

In response to our Draft Report, PIAC submitted that there needs to be better regulation of embedded networks, particularly residential parks, nursing and retirement homes, and social housing developments. This is because residents are likely to have lower incomes and be in vulnerable situations.[123]

PIAC is concerned that businesses are structuring themselves as billing agents to avoid obtaining an AER authorisation or exemption, which means that consumers have minimal protections.[124]

The AER released its consultation paper in May 2021, and discussed the issue raised by PIAC. It has reported that some embedded network specialists such as billing agents do not consider themselves to be controlling or operating the embedded network. Also, the owner of the network that outsources services to a billing agent may be unaware of their own compliance obligations and assume that the specialist billing agent carries all responsibility for regulatory compliance.[125]

The AER has sought views on who should be responsible for meeting network exemption conditions, and whether the meaning of controlling and operating an embedded network should be clarified.[126] Consultation closed in June 2021. The AER is yet to release a draft retail and network exemptions guideline for consultation.[127]

PIAC also considered that there could be a role for IPART to collect and monitor details about embedded networks: how many people are in embedded networks; business structures used by operators; and information on disconnections and customer debt levels.[128]

In last year's report we commented that there is a lack of information on the number of embedded networks in NSW and the number of customers affected. We considered that given we do not have a regular role with embedded networks, there could be a coordinated approach between the Office of Fair Trading, DPIE, and the AER, who may engage with embedded networks to develop a comprehensive database.[129]

The NSW Government is reviewing protections for embedded networks from being locked into long-term supply agreements

The NSW Government is reviewing the Strata Schemes Management Act 2015 (NSW).[130] In 2018, new provisions (section 132A) were included in the Act to protect strata schemes from being locked into unfair long-term utility supply contracts. These provisions limited the term length of contracts (for example, 3 years for new contracts) and required the contracts to be considered at annual general meetings.[131]

However, embedded networks were exempted from the new provisions. At the time, the AEMC was undertaking a review of the regulation of embedded networks. The NSW Government indicated that it did not want to pre-empt the findings of the AEMC's review and impose controls that were contrary to the AEMC's recommendations.[132]

The NSW Government is reviewing the Strata Schemes Management Act to provide similar protections for embedded networks.

The NSW Government is finalising its review on charging options for land lease communities

Land lease communities are embedded networks where consumers own or rent the home they live in but lease the land from a community operator (for example, caravan and residential parks).

In NSW, the *Residential (Land Lease) Communities Act 2013 (NSW)* limits the amount that land lease community operators may charge residents for electricity. Operators cannot charge residential more than the amount the operator has been charged for electricity consumed by the resident. This has provided lower than average electricity prices for many residents. However, it also means that operators cannot levy an additional charge to recover costs associated with maintaining the embedded network, billing, meter reading and EWON membership fees.[133]

The Government recently consulted on setting the maximum price that operators can charge at the median market price as published by IPART.[134] It is currently finalising this review. Appendix B shows the tariffs of the median market offers for each distribution network.

Consumer protections for hot water and chilled water embedded networks

Customers in hot water embedded networks receive hot water from a common hot water system. They can be charged for their hot water in litres rather than in units of electricity (kWh) or gas (MJ). When they are charged in litres, customers do not have access to any of the consumer protections either under the AER's exempt selling guidelines or the National Energy Customer Framework for their hot water service.[135] This is because when the product is sold in units other than in cents per kWh or MJ, the AER considers that an energy service is not being provided (similar to a hotel tariff or rent that includes energy costs).[136]

In response to our Draft Report, PIAC submitted that customers in embedded networks should be provided the same protections as those available to customers outside of embedded networks for their hot water service.[137]

Our understanding is that the NSW Government is intending to consult on this issue to seek views as to whether hot water embedded network operators should be required to bill customers for hot water in the underlying energy source (in cents for MJ or kWh) rather than as a separate hot water product (in cents per litre).

PIAC also submitted that customers in embedded networks that receive chilled water, for example for air conditioning use, similarly receive limited consumer protections.[138]

The AER is examining this issue in its review of the Retail and Network Exemption Guidelines. It reported that it recently became aware that customers are being charged (in kWhs) for the energy used to chill water for air conditioning systems (unlike hot water). It is consulting on how the sale of energy to chill water should be regulated to provide appropriate consumer protections.[139]

9.3 NSW Government energy assistance measures extended to embedded network customers

The NSW Social Programs for Energy Code (Code) sets out how retailers must assist in delivering the Government's energy assistance measures (e.g. rebates available for eligible participants such as concession card holders and receivers of the family tax benefit) and how they claim reimbursement from the Government.

Both EWON and PIAC previously raised concerns that embedded network customers are excluded from access to the NSW Government's energy assistance measures, for example Energy Accounts Payment Assistance vouchers.[140]

The amended NSW Social Programs for Energy Code now extends the Government's energy assistance measures to embedded network customers from 1 February 2022.[141]

10 Impacts of COVID-19

The restrictions from COVID-19 have had a major impact on the economy and customers' behaviour. There were changes in how customers used electricity, and also in their financial circumstances, with some being impacted by job losses.

This chapter discusses the impacts on electricity customers and the measures that have been put in place to help them during this time. It also considers the impacts that COVID-19 has had on retailers.

We expect that the impact of COVID-19 will be greater in NSW over 2021-22. NSW entered into more lockdown restrictions from late June 2021 till around mid-October 2021 and alternative work arrangements are ongoing for many households.[hh] We will continue to monitor the impact of COVID-19 in our next review.

10.1 Residential bills have increased

While prices for offers available in the market generally fell or stayed steady in 2020-21, overall bills increased for residential customers. This is because customers used more electricity as they spent more time at home. Many households shifted to working from home during all or parts of this period.

The increase in residential usage as a result of COVID-19 is significant given the longer-term trend in prior years of a gradual reduction in grid electricity use, reflecting improved energy efficiency and increased uptake of solar panels.[142]

We considered 2 sources of publicly available billing data when assessing how bills have changed:

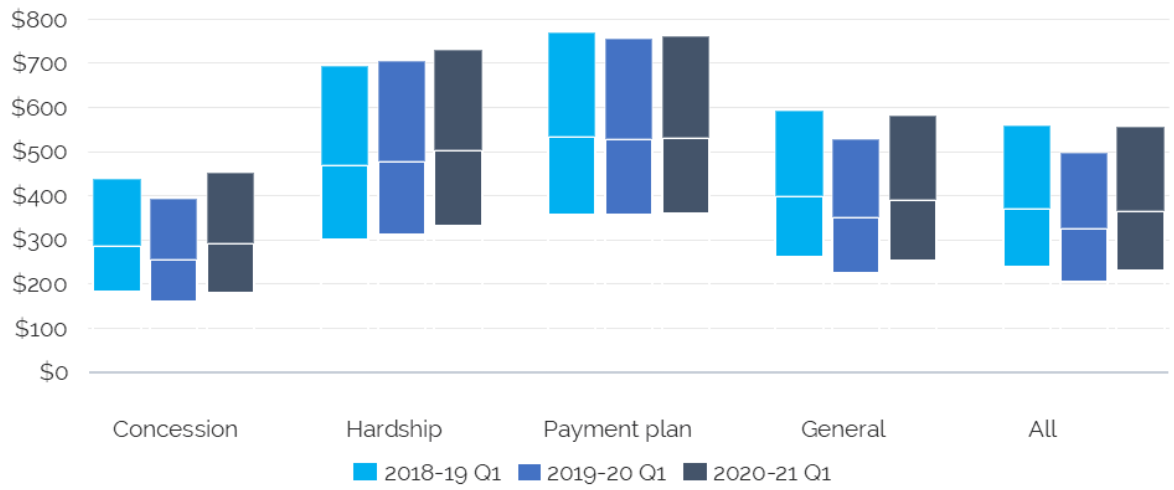
- The ACCC's inquiry into prices, profits and margins in the supply of electricity in the National Electricity Market. This data is NSW-wide and is collected for the period between June and September.
- The Department of Planning, Industry and Environment's NSW Energy rebate program data.[143] Retailers must provide billing data for all customers receiving the rebate (around 25% of all NSW customers[144]). Eligible customers include NSW holders of a health care card, Pensioner Concession Card, Department of Veterans' Affair Gold Card or customers who receive the Family Tax Benefit.[145] The department reports on this data separately for each network area. The latest available information published is for June to December 2020.

[hh] Under NSW Roadmap 80%, restrictions eased and NSW reopened for fully vaccinated from 18 October 2021.

In its May report, the ACCC reported on the change in quarterly consumption and bills over the past three years. Figure 10.1 shows its findings that the median quarterly bills increased across different groups of customers, including:

- Concession customers, who are customers who received rebates or assistance under the NSW Social Programs for Energy Code (15% increase in bills)
- Hardship customers, who are customers who participated in a retailer's hardship program. Under the National Energy Retail Law, retailers are required to provide programs to assist customers experiencing payment difficulties due to hardship (6% increase)
- Payment plan customers, who are customers who had an arrangement with their retailer to pay in instalments due to experiencing financial difficulties. It excludes flexible arrangements for convenience or budgeting reasons (1% increase)
- General customers, who don't fall into the above categories (11% increase).

Figure 10.1 Quarterly bill by residential customer groups in NSW



Note: The chart shows the 25th percentile, median (middle line) and 75% percentile of quarterly bills by residential groups.
Source: ACCC, Appendix E, Supplementary spreadsheet with billing data and figures, May 2021, Residential bills

Overall, the ACCC's data shows that the median quarterly bill for residential customers increased by 11% in the June to September 2020-21 quarter, and the usage increased by 13%.[146] However, the NSW rebate data suggests that the change in bills over the whole year may have been significantly less than this, reflecting a smaller COVID impact than the July to September quarter.

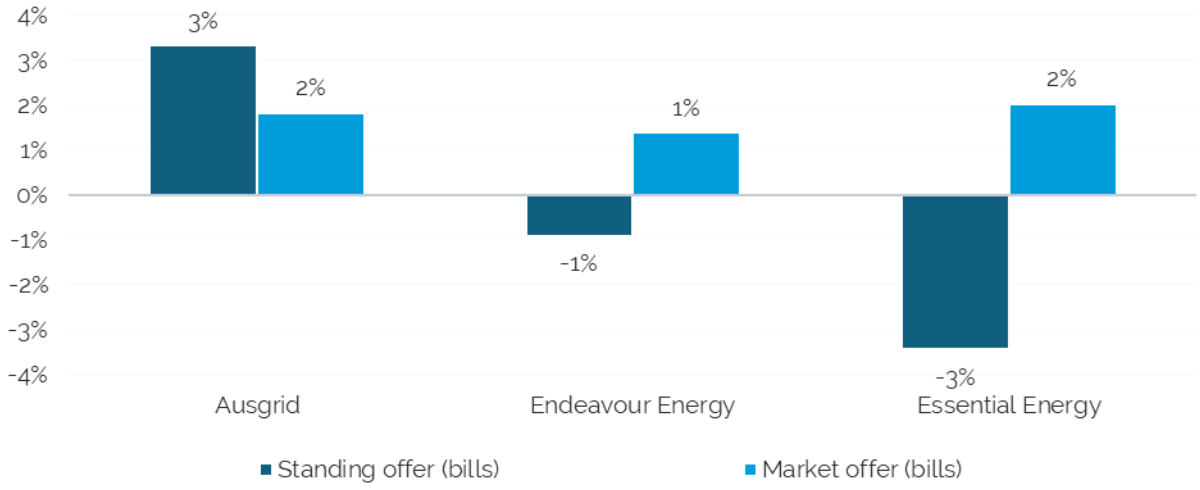
The NSW rebate data is for the 6-month period between June and December 2020. It shows that bills for rebate customers increased by up to 3% on average for this period between 2019-20 and 2020-21 (before the rebate is applied), compared to the ACCC's finding of a 19% increase for the June to September quarter. Figure 10.2 shows changes in customers' bills observed from the rebate data:

- Bills for most rebate customers in Ausgrid's region (those on market offers) increased by 2% on average and usage increased by 6% on average. For those on standing offers, bills increased by 3% on average and usage increased by 7% on average.
- Bills for rebate customers on market offers in Endeavour and Essential Energy's regions increased by 1% and 2% on average, and usage increased by 4% on average in both regions.

As well as timing differences, the differences in bill changes between the ACCC's data and the rebate data could reflect:

- the ACCC's bill changes being calculated after rebates have been applied, which would produce a higher percentage change in bills, compared to the rebate data where the changes have been calculated based on the bill before the rebate
- the ACCC's data only relating to a sample of customers, whereas the rebate data is for all rebate customers.

Figure 10.2 Average bill changes for residential electricity rebate customers (Jul-Dec 2019 to Jul-Dec 2020)



Note: Average bill changes are calculated on customers' bills before any rebates are deducted.

Source: NSW Government, Social Programs for energy code retailer reporting, accessed 5 November 2021.

10.1.1 Hardship and payment plan customers have higher bills

Figure 10.1 shows that bills for concession customers are lower than for general customers, as they receive rebates on their bills (see Table 10.1). However, hardship and payment plan customers have higher bills. In 2020-21 the median quarterly bill was an average of:

- $140 higher for payment plan customers
- $110 higher for hardship customers.

The bills for hardship and payment plan customers are higher than for general customers because on average, these customers use significantly more electricity. In 2020-21, compared to the median usage for general customers in NSW of 1,500 kWh in the June to September quarter:

- hardship customers' median quarterly usage of around 2,500 kWh was around 70% higher
- payment plan customers used around 2,200 kWh or 50% more.[147]

The higher usage by customers on hardship and payment plans is likely due to a number of factors. They are less likely to have access to solar panels due to barriers from the upfront installation costs and/or live in apartments or are renting (solar customers typically own their own home). With lower uptake of solar panels, these customers are more reliant on electricity usage from the grid. They may also reside in properties and use electrical appliances that are less energy efficient.[148]

10.1.2 Bills by socio-economic indexes

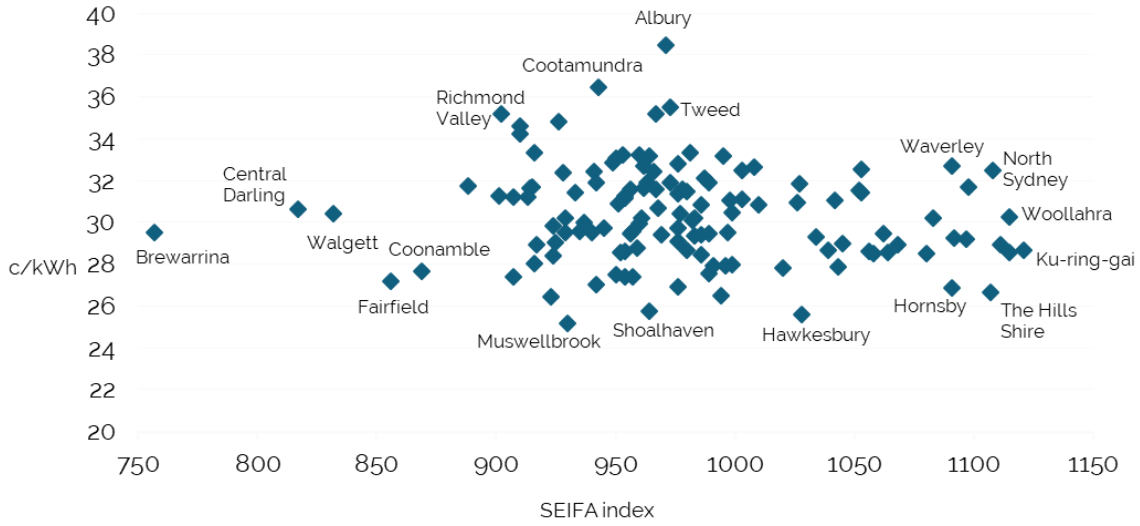
The NSW rebate data reports on the average cost of electricity (bill before any rebates are applied divided by usage) by local government area. We compared this data against the ABS' Socio-Economic Indexes for Areas (SEIFA) to examine whether there was a correlation between prices paid and relative disadvantage.

The latest SEIFA information is constructed from the 2016 census data. It uses data on indicators such as income, education, employment and housing to compare the relative socio-economic circumstances of one area to another.[149] In Figure 10.3 below, a lower SEIFA index means that the area is relatively disadvantaged compared to areas with a higher SEIFA index.

We did not find a correlation between average prices (per kWh used) and relative disadvantage. Prices in some relatively disadvantaged areas were similar to less disadvantaged areas. Differences in prices between areas with a similar SEIFA index are likely to reflect differences in electricity consumption, including differing levels of rooftop solar penetration[ii], rather than the relative take-up of cheaper offers.

[ii] About 15% of rebate customers are reported to have rooftop solar.

Figure 10.3 Average cost of electricity for rebate customers by Socio-Economic Indexes for Areas (Jul-Dec 2020)



Note: The SEIFA index used is the 'Index of relative socio-economic disadvantage'. The index of relative socio-economic advantage and disadvantage that is also available showed a similar result. Average cost of electricity is the total electricity bill (usage charges and daily supply charges) divided by electricity use. The total electricity bill used is the amount customers would have paid before any rebates are deducted.

Source: NSW Government, Social Programs for energy code retailer reporting, accessed 5 November 2021; and ABS Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia 2016, accessed 8 November 2021.

Findings

12. Bills for residential rebate customers increased by up to 3% on average between June and December in 2020-21 compared to the same period in the previous year. This was less than the increase in usage, which was up to 7% on average.

10.2 Support in response to COVID-19

There were a number of assistance measures introduced to help customers manage the impacts of COVID-19. These included both general assistance (such as the Commonwealth job keeper program and increases to job seeker) and also additional measures and rebates targeted specifically for electricity use. These are discussed below.

10.2.1 No disconnections without customer consent

The AER published its first Statement of Expectations of energy businesses on 9 April 2020 to protect consumers during the COVID-19 pandemic. It asked retailers to offer payment plans or hardship arrangements to all residential and small business customers who may be in financial stress, and not to disconnect customers without their agreement. The expectations have been extended and amended three times, after they were originally intended to lapse at the end of June 2021.

On 29 June 2021, the AER announced that the Statement of Expectations will be on 'standby'. This means that it will automatically come into effect when a Local Government Area (LGA) is subject to stay-at-home orders that last 7 days or more and will continue to apply for 14 days after stay-at-home orders are lifted.[150] In NSW, the Statement of Expectations was last in force in October 2021.[151]

10.2.2 NSW Government support

To assist vulnerable customers, the NSW Government temporarily increased the Energy Accounts Payment Assistance (EAPA) Scheme[jj] from its annual limit of $1,200 per household to $1,600. In 2020-21, around 59,000 energy customers received over 366,000 EAPA vouchers and the EAPA spend was 27% higher compared to 2019-20.[152]

The NSW Government also offers a range of assistance to households. Its assistance payments are shown in Table 10.1.

Table 10.1 NSW Government rebates

Rebate scheme	Description	Maximum rebate value per year
Low Income Household Rebate	Helps low income NSW households cover the costs of their energy bills	$285
NSW Gas Rebate	Helps low income NSW households cover the costs of their natural gas	$110
Family Energy Rebate	Helps NSW family households with dependent children cover the costs of their energy bills.	$180
Life Support Rebate	Helps NSW customers who need, or have someone living with them who needs to use approved energy-intensive medical equipment at home	Varies depending on equipment type*
Medical Energy Rebate	Helps NSW customers who have an inability to self-regulate body temperature when exposed to extreme hot or cold environmental temperatures	$285
Seniors Energy Rebate	Helps eligible independent retirees to cover the cost of their electricity.	$200

Note: For life support rebate, a daily rate is provided per equipment type used in household. It ranges from daily rate of $0.11 (excluding GST) for external heart pump to $3.68/day for phototherapy equipment and certain ventilators. More details at NSW Life Support Rebate.
Source: NSW Government Energy Saver, Find an energy rebate, accessed 21 September 2021

10.2.3 Assistance for business customers

In contrast to residential customers, small businesses' bills fell over 2020-21. This reflected government restrictions and reduced onsite business activity, or in some cases, closing their businesses. In NSW, the median quarterly usage decreased by 17% and the median quarterly bill decreased by 15% (or $90) between 2019 and 2020.[153]

[jj] The Energy Accounts Payment Assistance (EAPA) Scheme helps people experiencing a short term financial crisis or emergency to pay their electricity or natural gas bill. This scheme is only for short term assistance. The NSW Government first announced this increase on 27 April 2020 and the duration of the increased limit is being reviewed on an ongoing basis in light of lockdown circumstances.

However, even if businesses were required to close, they still incur electricity costs. At a minimum, they continue to pay the fixed charges of being connected, even if they are not using electricity.

In April 2020, Energy Networks Australia announced its 'network relief package'. Under this package they rebated network charges for small businesses if their consumption was less than 40MWh and significantly reduced (by 75%) between 1 April to 30 June 2020.[154]

In our recent discussion with stakeholders, one advised that in their view, they found that the network relief package eligibility requirements were relatively difficult and even when accessed, the value of rebated network charges was relatively low (around $50 per quarter per business).

10.3 Outcomes for vulnerable customers

10.3.1 Lower disconnections

Largely as a result of the Statement of Expectations, the number of disconnections fell over 2020-21. The number of disconnections averaged around 500 a week across the NEM in 2020-21, which is significantly less than pre-COVID-19 benchmarks of around 1,400 disconnections a week.[155]

In response to our Draft Report, PIAC submitted that trials of disconnection pre-visits have also been successful in reducing disconnections.[156] It indicated that Essential Energy and Endeavour Energy were rolling pre-visits across their networks as a result of successful pilots, and that Ausgrid was intending to trial the pre-visits program soon.

PIAC also submitted that the 3 distribution network service providers will also trial providing additional support information (where households can get help for any broader problems they might have) during their pre-visits.

PIAC submitted that the success of these initiatives must not be undermined by allowing remote disconnection in circumstance of non-payment. Under the National Energy Retail Law, retailers must take several steps before they can disconnect a customer's electricity supply. This includes sending the customer a reminder notice, followed by a disconnection warning notice and then a final step of attempting to contact the customer.[157] Retailers with customers that have meters with remote disconnection capabilities are also able to trial pre-visit programs to determine whether they should roll it out across their business.

10.3.2 Higher debt for hardship customers

The number of customers entering hardship programs across the NEM fell over 2020-21. However, the average level of debt on entry to a hardship has increased by over 20% compared to the pre-COVID benchmark. In addition, customers already on hardship programs had higher debt levels.

In its submission to our Draft Report, AGL advised us that at the start of 2020-21, about 40,000 small customers in Australia were being supported through AGL's COVID-19 Customer Support Program and the restrictions on collections activities under the AER's Statement of Expectations. It recommenced collections activity in August 2020, which drove an increase in customers seeking support but with higher average arrears.

During 2020-21, AGL submitted that it continued to provide debt relief and payment for customers participating in AGL's hardship program. The number of customers on this program fell by 6.4% as some customers accessed other assistance, while the average level of debt of customers on this program increased by 20.7%.[158]

In discussions with PIAC, it emphasised for retailers to be more proactive in assisting vulnerable customers. PIAC was concerned that some retailers may be waiting until after the pandemic to disconnect customers for non-payment, rather than engaging with them at the time to help them reduce their debt. In its view, disconnections are not effective at overall debt management, as vulnerable customers will go without food and other essentials to keep their electricity connected.

In response to our Draft Report, PIAC also submitted that retailers are inconsistent in their assistance of vulnerable customers.[159] It raised concerns that receiving support depends on whether the customer service representative understands the retailer's obligations under the electricity rules. PIAC also submitted that vulnerable customers are turning to loan products to pay their electricity bills and this will be an increasing issue as the AER's Statement of Expectations is no longer in force.

Under the National Energy Retail Rules, the AER's Customer Hardship Policy Guideline creates binding, enforceable obligations on retailers to provide protections for customers experiencing payment difficulties due to hardship.[160] Each retailer is required to have an AER approved hardship policy which sets out the retailers' processes for assisting customers. The AER is responsible for monitoring and reporting on each retailer's compliance with its approved customer hardship policy. It undertakes enforcement action for any breaches.

In June 2021, the AER released five compliance and enforcement priorities for 2021-22. These include monitoring whether retailers are effectively identifying residential consumers in financial difficulty and offering payment plans that have regard to the consumer's capacity to pay.[161]

In 2020-21, the AER undertook enforcement action against EnergyAustralia, AGL, Origin Energy, Momentum Energy and Alinta Energy for breaches such as:

- failing to provide customers the opportunity to enter into appropriate payment plans
- failing to inform customers about assistance measures available
- wrongfully disconnecting customers
- disconnecting customers who were experiencing payment difficulties, without first offering customers a payment plan option
- either not registering or incorrectly removing from their life support register, customers that required life support equipment.[162]

10.4 Impact on retailers

Energy retailers are facing increased costs and falling revenues arising from COVID-19. Additional costs may include 'onshoring' workers, closing call centres and transitioning workforces to a working from home arrangement.

There are also substantial customer related costs including an increased focus on hardship programs, and bad and doubtful debt expenses. In our recent consultation with various retailers, there was consistent feedback of increasing customer debt due to COVID-19. Retailers who have previously relied upon its ability to disconnect customers to assist its debt collection process, are bearing more bad debt risk since the implementation of AER's Statement of Expectations.

In its submission to our Draft Report, AGL advised that its bad debt expense for 2020-21 increased to $29 million (nationally) due to COVID-19. In addition, there were extra costs relating to AGL's COVID-19 payment support program.[163]

While retailers have managed these increased costs to date, this has impacted their retail margins. The retail margin earned by smaller retailers are also considerably lower than that earned by large retailers, meaning that small retailers are likely to be disproportionately impacted by increases in customer debt.[164]

Given the increasing detrimental impact to retailers' cash flows and margins, some retailers have expressed to us the need to consider extra bad debt allowances when estimating the DMO cap. As discussed in Chapter 8, in its most recent DMO determination, the AER considered that the increased retailer costs due to impact of COVID-19 were not significant enough to warrant an adjustment.

The network relief package provided some relief for retailers. For small retailers, network charges were rebated for residential customers where payment went into default/arrears as a result of COVID-19. For large retailers, network charges were deferred for residential customers who went on payment plans or hardship arrangements as a result of COVID-19.[165]

On 6 August 2020, the AEMC formalised and extended this package with a rule change that allows some (small) retailers to defer paying some network costs incurred between 6 August 2020 and 6 February 2021 for up to six months.[166]

IPART also provided concessional treatment to some retailers regarding their Energy Savings Scheme (ESS) obligations for 2020.[kk]

[kk] Eligible small retailers' individual energy savings target for 2020 were reduced by 100%. The NSW Government provided this relief to small retailers through a Ministerial Order, the Energy Savings Scheme (Small Retailer) Order 2020.

Appendices

A List of retailers in the market

Table A.1 below shows the retailers that had electricity offers available on Energy Made Easy in May 2021. Some retailers have multiple brands. It also shows the types of offers that were available.

A tick indicates that the offer was available across NSW, that is, in all three network areas (Ausgrid, Endeavour Energy and Essential Energy). Where the offer/s were restricted to certain customer sub-groups, either by location or customer type, this information is provided in text.

Table A.1 Summary of types of offers on Energy Made Easy in May 2021

	Retailer	Tariffs offered		
		Any time (single rate)	Time of use (TUO)	Demand
1	Origin Energy	✓	✓	Ausgrid business customers only
2	i) EnergyAustralia	✓	✓	Ausgrid and Endeavour business customers only
	ii) On by EnergyAustralia (new)	Residential only	Residential only	-
3	i) AGL	✓	✓	Ausgrid business customers only
	ii) ActewAGL	Endeavour and Essential only	Endeavour and Essential only	-
	iii) Powerdirect	✓	✓	Ausgrid business customers only
4	Red Energy	✓	✓	✓
5	1st Energy	✓	✓	Ausgrid business customers only
6	Alinta Energy	✓	✓	Ausgrid and Endeavour customers only
7	Amber Electric	Residential only	-	-
8	Arc Energy Group **(new)**	Residential only	-	-
9	Blue NRG	Business only	Business only	Business customers only
10	Bright Spark Power	✓	Business only	-
11	CovaU	✓	✓	✓
12	Diamond Energy	✓	✓	-
13	Discover Energy	✓	✓	✓
14	Dodo Power & Gas	✓	✓	-
15	Electricity in a Box **(new)**	✓	✓	-
16	Elysian Energy	✓	✓	✓
17	Energy Locals	✓	✓	-
18	Enova Energy	✓	✓	-
19	Future X Power	✓	✓	-
20	Globird Energy	✓	✓	✓
21	Glow Power **(new)**	✓	✓	Ausgrid business customers only
22	i) Kogan Energy	Residential only	Residential only	-

	Retailer	Tariffs offered		
		Any time (single rate)	Time of use (TUO)	Demand
	ii) Powershop	✓	Ausgrid and Essential only	Ausgrid business customers only
23	Locality Planning Energy	Residential only	Residential only	Ausgrid and Endeavour customers only
24	Mojo Power	✓	✓	-
25	Momentum Energy	Residential only	Residential only	Ausgrid and Endeavour customers only
26	Nectr	Business only	Business only	-
27	Next Business Energy	Residential only	Residential only	Business customers only
28	OVO Energy	Residential only	Residential only	-
29	People Energy **(new)**	Ausgrid and endeavour only	Ausgrid and endeavour only	-
30	Pooled Energy	✓	-	Ausgrid business customers only
31	Powerclub	✓	-	-
32	QEnergy	✓	-	Business customers only
33	Radian Energy **(new)**	✓	✓	-
34	ReAmped Energy	✓	✓	-
35	Simply Energy	✓	✓	Ausgrid business customers only
36	Smart Energy **(new)**	Ausgrid residential only		-
37	Social Energy **(new)**	Residential only	-	-
38	Sonnen **(new)**	Residential only	-	-
39	Sumo	✓	✓	Ausgrid and Endeavour customers only
40	Tango Energy	✓	✓	Ausgrid and Endeavour customers only

B Median market offers and tariffs

Table B.1 shows the median market residential offers in July 2021 calculated at the DMO consumption level for each network area. It shows the consumption and daily supply charges associated with the median offers (excluding GST and after discounts).

Table B.1 Median market offers by network area July 2021

	Median market offer	Daily supply charge of median offer	Consumption rate of median offer	Consumption used to calculate the median offer (DMO level)	DMO price
	Annual bill (after discounts and GST)	c/day (after discounts, excluding GST)	c/kWh (after discounts, excluding GST)	Annual kWh	Annual bill (including GST)
Ausgrid	$1,177	80.4	19.9	3900	$1,393
Endeavour	$1,375	98.8	18.1	4900	$1,609
Essential	$1,621	121.7	22.4	4600	$1,907

Note: Based on anytime offers only. Duplicate offers are excluded before the median offers are calculated. We exclude offers with eligibility criteria (e.g. to sport clubs), demand tariffs, offers with controlled loads, and offers where solar is a requirement of the offer.

Table B.2 shows the median daily supply charge and consumption tariffs for anytime offers in each network area.

Table B.2 Median tariffs for market offers by network area July 2021

	Median daily supply charge c/day (after discounts, excluding GST)	Median consumption rate c/kWh (after discounts, excluding GST)
Ausgrid	77.5	20.0
Endeavour	76.1	20.0
Essential	121.7	21.1

Note: Based on anytime offers only. Duplicate offers are excluded before the median tariffs are calculated. We exclude offers with eligibility criteria (e.g. to sport clubs), demand tariffs, offers with controlled loads, and offers where solar is a requirement of the offer.

C Prices offered by retailers for GreenPower

GreenPower is an Australian government-managed[a] program that allows customers to support renewable energy generation. When customers buy GreenPower from their retailers, retailers will purchase certified renewable energy ("large-scale generation certificates" or "LGCs") on their behalf. This offsets the customer's electricity usage with accredited GreenPower sources which is from 100% renewable energy generation (such as wind, solar, mini-hydro and bioenergy). The green energy purchased is additional to the mandated Commonwealth Government Renewable Energy Target[b] and is different to carbon neutral offsets.[c]

Most retailers in NSW offer GreenPower. However, we understand from conversations with retailers that the uptake is generally low. One retailer advised that around 5% of its customers select to pay extra for GreenPower.[167]

Customers can choose between 10% to 100% of their electricity usage to be GreenPower (retailers typically offer GreenPower at set portions such as 20%, 50%, 100%).

GreenPower prices are included on the Commonwealth Government Energy Made Easy website.

Retailers charge for GreenPower in various ways:

- **Fixed amount per kWh of GreenPower**
  For example, an extra 5c per kWh for GreenPower. If a customer chooses 20% GreenPower, they would pay an extra 5 c/kWh x 20% x usage on their bill.[d] For 100% GreenPower, they would pay an extra 5c/kWh x 100% x usage.

  Most retailers charge for GreenPower using this approach. Prices charged range from 4 to 6 c/kWh for GreenPower – see Figure C.1 below.
- **Varying amount per kWh at different portions of GreenPower**
  For example, Locality Planning Energy had different rates at varying portions of GreenPower, rather than a fixed amount per kWh of GreenPower. It offered 25% GreenPower for 0.23c/kWh, 50% GreenPower for 2.56c/kWh, 80% GreenPower for 4.68c/kWh and 100% GreenPower at 6.29c/kWh.[e]

---

[a] The NSW Department of Planning, Industry and Environment administers GreenPower on behalf of the National GreenPower Steering Group (NGPSG). Currently the NGPSG includes representatives from NSW, Victoria and South Australia. GreenPower, Who we are, accessed 11 October 2021

[b] The Renewable Energy Target (RET) is a Commonwealth Government scheme designed to reduce emissions of greenhouse gases in the electricity sector and encourage the additional generation of electricity from sustainable and renewable sources. Under RET legislation, wholesale purchasers of electricity are required to contribute 33,000GWh of renewable energy per year until 2030. GreenPower relies on voluntary participation by consumers and goes above what is mandated under the RET. GreenPower, Relevant legislation, accessed 11 October 2021

[c] Carbon neutral energy is where the retailer offsets an equivalent amount of grid energy used with emissions reduction certificates. These can be produced through a range of methods such as renewable energy, reforestation, landfill gas or carbon capture, or energy efficient cookstove technology.

[d] For example, if a customer has annual usage of 4,000 kWh, and selected 20% GreenPower with a retailer offering 5c per kWh of Greenpower, they would pay an additional $40 on their annual bill (5c/kWh x 20% x 4,000).

[e] As at 20 June 2021, Locality Planning Energy was the only retailer which had varying rates at different portions of GreenPower. EnergyMadeEasy data as at 20 June 2021.

- **Weekly charge**
  For example, AGL and Powerdirect offered 20% of total usage to be from GreenPower for $1 per week, Origin Energy offered, 25% of total usage to be from GreenPower for $0.65 per week.[f]
- **Combination of a fixed amount per kWh of GreenPower and a daily charge**

  For example, Nectr offers a 100% GreenPower plan for an extra 5.17c per kWh added to the usage charge and an additional 18.92 cents per day added to the daily supply charge.[g]
- **Including a portion of GreenPower in the underlying rates (no separate charges)**

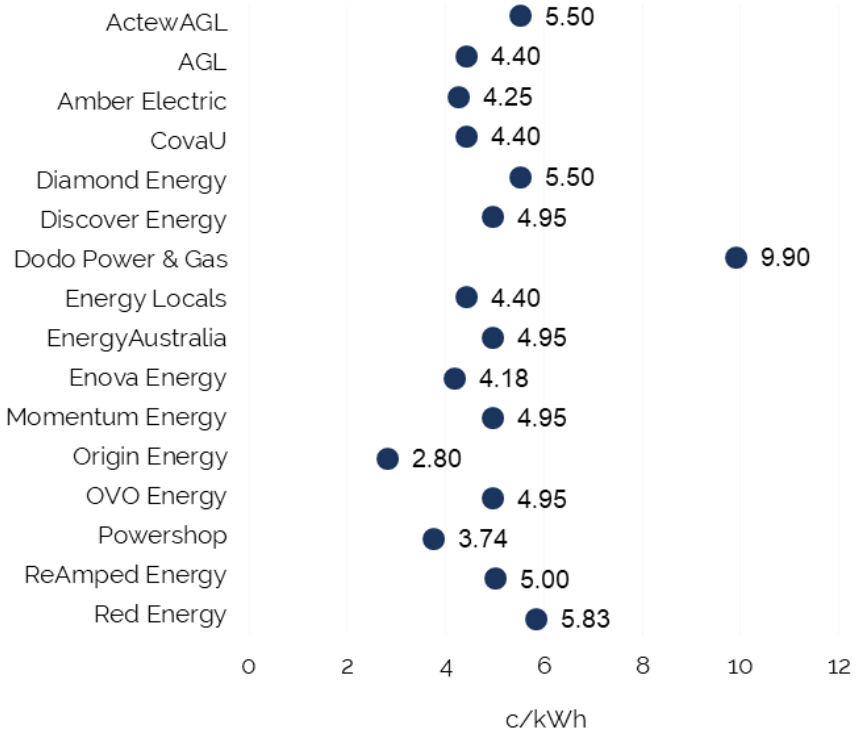
  For example:
  - Tango Energy includes 100% GreenPower in all its energy plans.[168]
  - Origin Energy offers 25% GreenPower at no additional charge for 'Everyday Rewards' members who join their Origin Go plan. These customers pay the same electricity tariffs as other customers that join the Origin Go plan but are not 'Everyday Rewards' members.[169]

We have not compared bill outcomes with different retailers and/or pricing approaches (such as weekly charges vs fixed amount per kWh of GreenPower). It is possible that customers can be better off with a higher GreenPower price if it is offset by lower underlying electricity rates.

[f] As at 20 June 2021, 3 retailers (AGL, Origin and Powerdirect) offered GreenPower by weekly charge. EnergyMadeEasy data as at 20 June 2021.

[g] Nectr Online plan all day usage rates is 20.13c/kWh and supply charge at 81.07c/day. This compares to Nectr 100% GreenPower plan with usage rates at 25.3c/kWh and supply charge at 99.99c/day. Nectr energy plans, accessed 29 October 2021.

Figure C.1 Prices for GreenPower across retailers in NSW (c/kWh, June 2021)

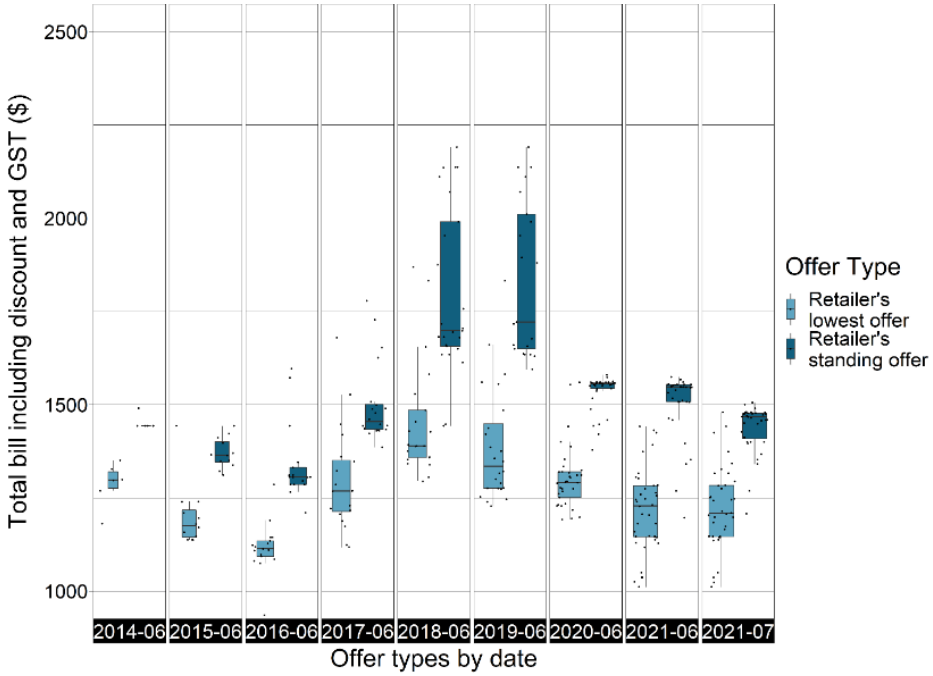


Source: IPART analysis from EnergyMadeEasy data as at 20 June 2021

D Range of offers in each network area

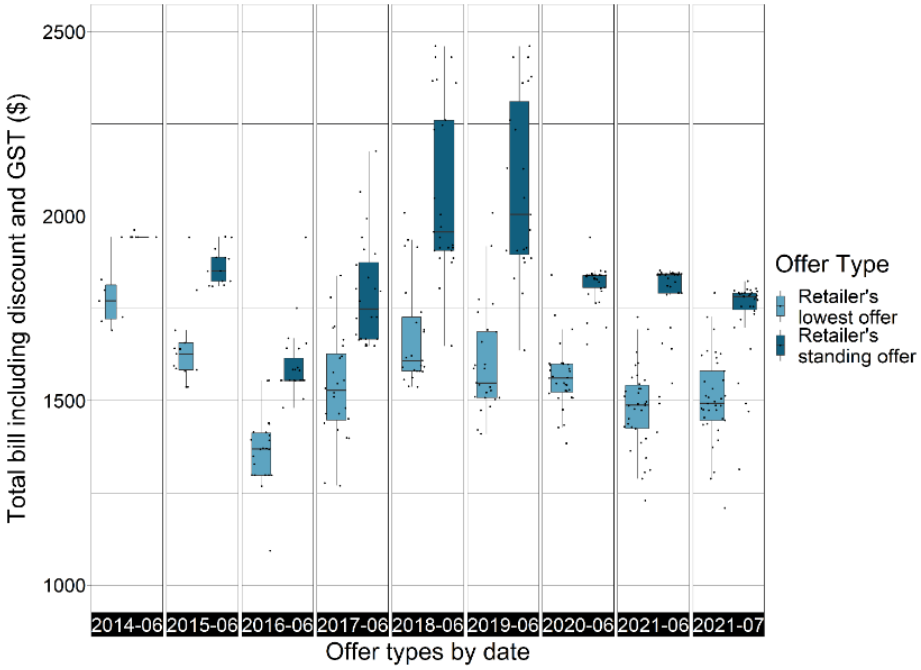
This appendix shows the range of offers in the market over time for residential and business customers by network area. The charts show the standing and lowest offers for each retailer. The bill amounts used in this appendix are based on based on consumption of 4,215 kWh for residential customers, and 20,000 kWh for business customers.

Figure D.1 Distribution of residential offers in the Ausgrid network (4,215 kWh)



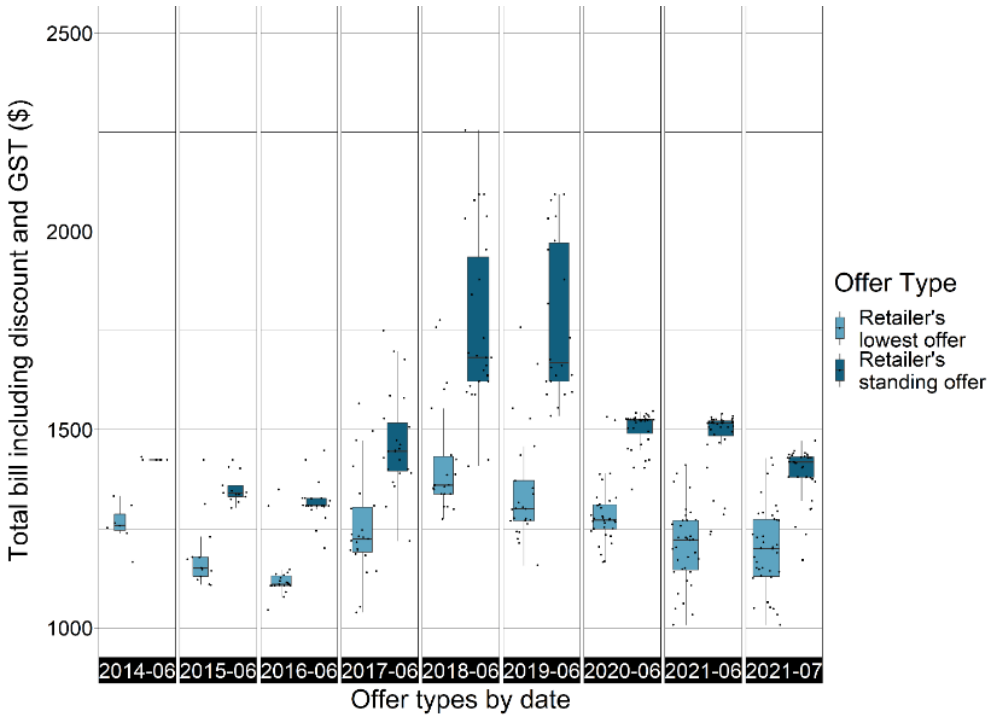
Note: Any-time offers only.
Source: EnergyMadeEasy

Figure D.2 Distribution of residential offers in the Essential Energy network (4,215 kWh)



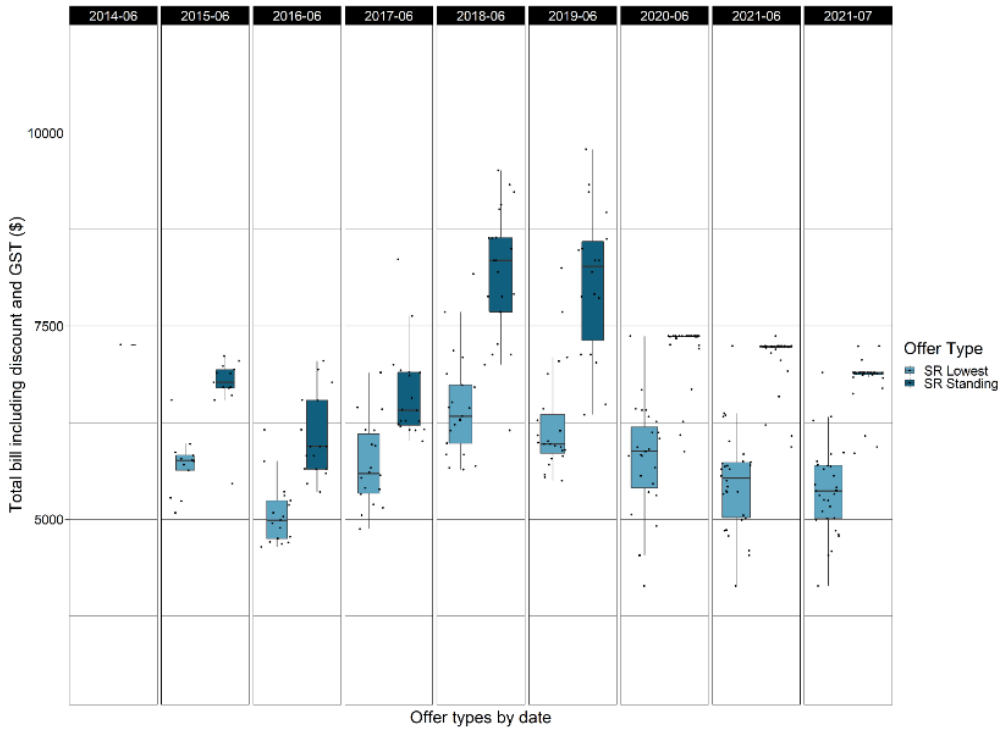
Note: Any-time offers only.
Source: EnergyMadeEasy

Figure D.3 Distribution of residential offers in the Endeavour network (4,215 kWh)



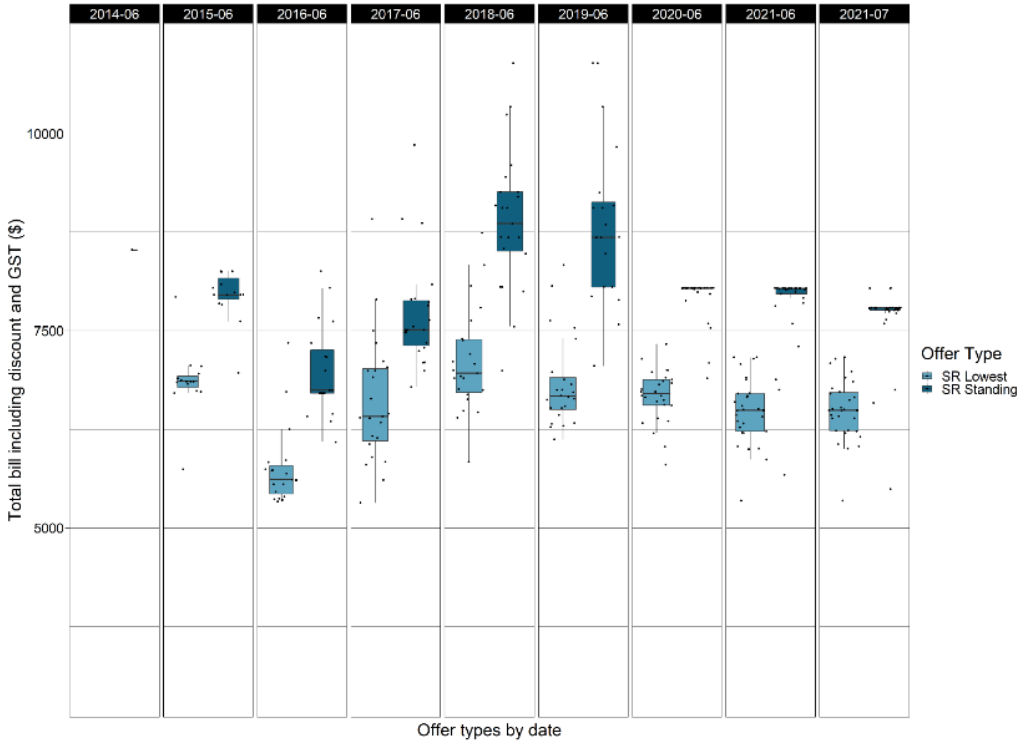
Note: Any-time offers only.
Source: EnergyMadeEasy

Figure D.4 Distribution of business offers in the Ausgrid network (20,000 kWh)



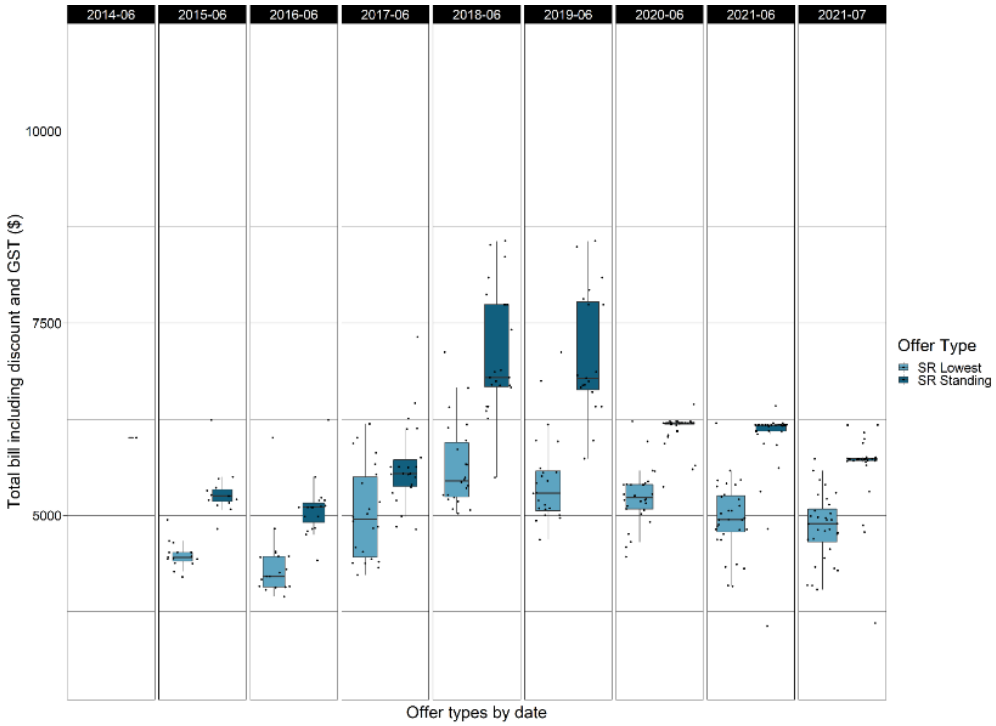
Note: Any-time offers only.
Source: EnergyMadeEasy

Figure D.5 Distribution of business offers in the Essential Energy network (20,000 kWh)



Note: Any-time offers only.
Source: EnergyMadeEasy

Figure D.6 Distribution of business offers in the Endeavour network (20,000 kWh)



Note: Any-time offers only.
Source: EnergyMadeEasy

[1] Clean Energy Australia Report, March 2021, accessed 6 October 2021.
[2] AEMO, NEM Generation Information July 2021, accessed 8 October 2021.
[3] NSW DPIE, NSW Electricity Infrastructure Roadmap Detailed Report, November 2020, p 48.
[4] NSW Department of Planning, Industry and Environment, NSW Emissions, accessed 8 October 2021.
[5] NSW Government, NSW set to halve emissions by 2030, September 2030.
[6] AEMO, AEMO's reliability outlook 2021, p 6.
[7] AEMO, NEM Engineering Framework Operational Conditions Summary, July 2021., pp 16- 17.
[8] AEMO, Application of Advanced Grid-scale Inverters in the NEM, August 2021, p 9.
[9] AEMO, NEM Engineering Framework Operational Conditions Summary, July 2021.
[10] IPART calculations based on AGL, AGL Macquarie Power Stations, accessed 7 October 2021.
[11] NSW Government Industry & Investment, *NSW Implementation of the National Energy Customer Framework – Policy Paper for Consultation*, September 2010, p 14.
[12] NSW Government, Letter from the Hon Anthony Roberts MP to Peter Boxall, 7 April 2014.
[13] IPART, Our Role in gas, accessed 6 October 2021.
[14] Energy Legislation Amendment (Retail price deregulation) Bill 2014, Second Reading, p 1.
[15] *National Energy Retail Law (NSW)*, s 234A; National Energy Retail Law (Adoption) Regulation 2013, cl 8A.
[16] Based on the networks' price lists for residential customers on an anytime tariff.
[17] Refer to charts on AER fact sheets: AER - Final decision Ausgrid distribution determination Fact sheet - April 2015, p 1; AER - Final decision Endeavour Energy distribution determination Fact sheet - April 2015, p 1; AER - Final decision Essential Energy distribution determination Fact sheet - April 2015, p 1.
[18] ESB, Post 2025 Market Design Final Report (Part B), July 2021, p 12.
[19] ESB, Post 2025 Market Design Final Report (Part B), July 2021, pp 85-88.
[20] NSW DPIE, NSW Electricity Infrastructure Roadmap Overview, November 2020, pp 9, 12.
[21] NSW DPIE, Renewable energy zones, accessed 28 September 2021.
[22] NSW DPIE, Pumped hydro recoverable grants program, accessed 28 September 2021.
[23] *National Energy Retail Law (NSW)*, s 234A; National Energy Retail Law (Adoption) Regulation 2013, cl 8A.
[24] *National Energy Retail Law (NSW)*, s 234A (3)(f).
[25] *National Energy Retail Law (NSW)*, s 234A (3)(g).
[26] *National Energy Retail Law (NSW)*, s 234A (3)(h).
[27] *National Energy Retail Law (NSW)*, s 234A (7),(8).
[28] *National Energy Retail Law (NSW)*, s 234B.
[29] CSIRO, Australia installs record-breaking number of rooftop solar panels, accessed 26 November 2021.
[30] NSW Department of Planning Industry and Environment, Safety training boost for booming solar installations, November 2021, accessed 26 November 2021.
[31] On by EnergyAustralia, Solar bundle plan, accessed 23 September 2021.
[32] GEE Energy, Residential Savings Plan, accessed 23 September 2021.
[33] Social Energy, How it works, accessed 23 September 2021.
[34] SonnenConnect . accessed 28 September 20.
[35] Australian Government Department of Industry, Science, Energy and Resources, Australian Government Response to the Clean Energy Regulator's Integrity Review of the Rooftop Solar PV Sector, accessed 26 November 2021.
[36] Clean Energy Regular, Integrity review of the rooftop solar pv sector, September 2021, p 43.
[37] ACCC, Submission to the Clean Energy Regulator, 10 November, 2020. See Appendix D in Clean Energy Regular, Integrity review of the rooftop solar pv sector, September 2021, p 57.
[38] Australian Government Clean Energy Regulator, Integrity Review of the Rooftop Solar PV Sector, accessed 26 November 2021.
[39] See Amber SmartShift and Discover Energy Smart Energy Insights. accessed 28 September 2021.
[40] SonnenFlat, accessed 28 September 2021.
[41] On by EnergyAustralia, Free Saturdays, plan, accessed 28 September 2021.
[42] Amber, accessed 28 September 2021.
[43] AGL, Peak Energy Rewards, accessed 11 November 2021. AGL submission to IPART Draft Report, p 3.
[44] Energy Consumer Australia, Behaviour Survey, October 2021, Willingness to reduce usage as much as possible, Mange energy bills, accessed 11 November 2021
[45] Energy Consumer Australia, Behaviour Survey, October 2021, Appliances owned: Electric vehicle/s in NSW, accessed 11 November 2021
[46] Powershop, Residential Electricity Plan – Electric vehicles, accessed 10 November 2021
[47] OVO Energy, OVO Drive electric vehicle offer, accessed 10 November 2021
[48] Red Energy, Red EV Saver plan, accessed 11 November 2021
[49] Discover Energy, Electric vehicles, accessed 11 November 2021
[50] AEMC, 2020 Retail energy competition review, Final Report, June 2020, p 201.
[51] The project is run by Endeavour Energy in conjunction with a specialist metering company (Intellihub) and other retailers. PV Magazine, Smart meters allow excess midday solar energy to be soaked up locally in 'innovative' NSW program, 25 May 2021; accessed 23 September 2021
[52] ECA behaviour survey, October 2021, Appliances owned: Digital meter in NSW, accessed 11 November 2021.
[53] Email correspondence with AEMO, 13 September 2021.
[54] AGL Energy Limited Annual Report, 2021, p 21
[55] AGL submission to IPART Draft Report, p 2
[56] ACCC, Inquiry into the National Electricity Market, May 2021, p 17.

[57] ACCC, Inquiry into the National Electricity Market, May 2021, p 13.
[58] PIAC submission to IPART Draft Report, p 5.
[59] AER, Benefit Change Notice Guidelines – Version 1, June 2018, p 3.
[60] AEMC, Final rule making retailers warn customers before their energy prices change, accessed 19 October 2021.
[61] ACCC, Inquiry into the National Electricity Market, May 2021, pp 59-60.
[62] PIAC submission to IPART Draft Report, p 7.
[63] PIAC submission to IPART Draft Report, p 6.
[64] AER, AER invites stakeholder views on Better Bills, September 2021, accessed 8 October 2021.
[65] PIAC submission to IPART Draft Report, p 7.
[66] PIAC submission to IPART Draft Report, p 7.
[67] Origin Energy, accessed 10 November 2020
[68] Energy Consumers Australia, Energy Consumer Sentiment Survey, NSW Electricity Sentiment, June 2021; Energy Consumers Australia, Energy Consumer Sentiment Survey, Household Topline Results, June 2020, p 5; accessed 20 September 2021
[69] Energy Consumers Australia, Energy Consumer Sentiment Survey, Household Topline Results, June 2021, p 13; Energy Consumers Australia, Energy Consumer Sentiment Survey, Household Topline Results, June 2020, p 7; accessed 20 September 2021
[70] Energy Consumers Australia, Energy Consumer Sentiment Survey, NSW Electricity Sentiment, June 2021; Energy Consumers Australia, Energy Consumer Sentiment Survey, Household Topline Results, June 2021, p 24; accessed 20 September 2021
[71] Energy Consumers Australia, Energy Consumer Sentiment Survey, Household Topline Results, June 2021, p 2.
[72] Energy Consumers Australia, Energy Consumer Sentiment Survey, NSW Electricity Sentiment, June 2021, accessed 20 September 2021
[73] EWON, EWON Insights Oct-Dec 2020, Credit complaints and the AER Expectations, accessed 8 September 2021.
[74] EWON, EWON Insights Apr-Jun 20211, Ombudsman's introduction, accessed 8 September 2021.
[75] AGL submission to IPART Draft Report, p 2
[76] AGL finalises acquisition of Click Energy, 1 October 2020, accessed 6 October 2021.
[77] Electricity Authority, New Zealand Government, Post implementation review of saves and winbacks - Final Report, 29 August 2017, pp 1-2.
[78] Electricity Authority, New Zealand Government, Better deals for consumers on the horizon as the Electricity Authority bans retailer-initiated win-backs, February 2020, accessed 6 October 2021.
[79] IPART, Review of the performance and competitiveness in the NSW retail energy market From 1 July 2017 to 30 June 2018 Final Report, November 2018, p 12.
[80] Australian Government Department of Industry, Science, Energy and Resources, Major reforms in the National Electricity Market, October 2021, accessed 6 October 2021.
[81] For example, see IPART, Monitoring the Electricity Retail Market, November 2020, p 28.
[82] For example, see Electricity Supply (General) Regulation 2014, Division 3; Scheme Rules, Accreditation of Providers of Contestable Services, December 2017.
[83] AEMC, Final Report 2020 Retail Energy Competition Review, June 2020, p 36.
[84] AEMC, Final Report 2020 Retail Energy Competition Review, June 2020, pp 33, 36-37.
[85] AER, Retail electricity prices review - Determination of default market offer prices 2021-22, accessed 7 October 2021.
[86] ACCC, AER Default Market Offer, Submission to the Draft Determination, 20 March 2019, p 1-2.
[87] AER, Draft Determination, Default Market Offer Prices 2021-22, February 2021, pp 35, 40.
[88] Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019, cl 17 (2)c.
[89] Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019, cl 16.
[90] IPART calculations based on AEMC, Final Report, Residential Electricity Price Trends 2020, December 2020, pp 1, 9.
[91] AER, Wholesale Markets Quarterly Q2 2021 - Wholesale electricity markets data, August 2021.
[92] AER, Wholesale Markets Quarterly Q2 2021 April - June, August 2021, p iv, 15, 23, 25, 27.
[93] Stakeholder submission to IPART Draft Report, October 2021.
[94] IPART calculations based on AEMC, Final Report, Residential Electricity Price Trends 2020, December 2020, pp 1, 9.
[95] AER, Final Decision, TransGrid transmission determination 2018 to 2023 Overview, May 2018, p 14.
[96] AER, Final decision: Ausgrid 2019-24, p 1.
[97] AER, Final decision: Endeavour Energy 2019-24, p 1.
[98] AER, Final decision: Essential Energy 2019-24, p 1.
[99] IPART calculations, based on ACCC, Appendix E - Inquiry into the National Electricity Market - November 2019 Report, Regional Figure 2.13, $/customer.
[100] AER, AER electricity wholesale performance monitoring NSW electricity market advice, December 2017, pp 2-3,12.
[101] AEMC, Final Report, Residential Electricity Price Trends 2020, December 2020, p 9.
[102] Ausgrid time-of-use pricing, accessed 16 November 2021.
[103] Endeavour Energy, Network price list: Network tariffs 2020-2021, July 2020, p 19.
[104] Essential Energy, Essential Energy time-of-use brochure, accessed 16 November 2021, p 2.
[105] AER, Default Market Offer continues to protect disengaged energy customers, April 2021, accessed 6 October 2021.
[106] IPART, Final Report - Monitoring the Electricity Retail Market - 2019-20, November 2020, p 11.
[107] AEMC, Final Report 2020 Retail Energy Competition Review, June 2020, p 36.
[108] ACCC, FAQ for electricity retailers – How will the ACCC enforce the code?, accessed 1 November 2021.
[109] DISER, Competition and Consumer (Industry Code – Electricity Retail) Regulations 2019 Post-implementation review, September 2021.

[110] PIAC submission to IPART Draft Report, p 10.
[111] AER, Determination of default market offer prices 2021-22, p 8.
[112] AER, Determination of default market offer prices 2021-22, p 41.
[113] AER, Determination of default market offer prices 2021-22, pp 48-49.
[114] AER, Default Market Offer prices – Options Paper on the methodology to be adopted for 2022-23 determination (and subsequent years), October 2021, p 8
[115] AER, Information for electricity consumers in embedded networks, accessed 7 September 2021.
[116] AER, Retail exemptions, accessed 7 September 2021.
[117] AER, (Retail) Exempt Selling Guideline version 5, April 2018, p 37.
[118] AEMC, Updating the regulatory frameworks for embedded networks – Final report, June 2019, p v-vi.
[119] AEMC, Updating the regulatory frameworks for embedded networks – Final report, June 2019, p vi.
[120] EWON, Quarterly insights from July 2020 to Jun 20201, accessed 23 September 2021.
[121] AER, Retail exempt selling guideline, March 2018, accessed 18 November 2021.
[122] AER, Network service provider registration exemption guideline review 2021.
[123] PIAC submission to IPART Draft Report, p 10.
[124] PIAC submission to IPART Draft Report, p 10.
[125] AER, Updating the Network and Retail Exemption Guidelines – Consultation Paper, May 2021, p 15.
[126] AER, Updating the Network and Retail Exemption Guidelines – Consultation Paper, May 2021, p 16.
[127] AER, Network service provider registration exemption guideline review 2021.
[128] PIAC submission to IPART Draft Report, p 11.
[129] IPART, Monitoring the Electricity Retail Market 2019-20 – Final Report, November 2020, p 21.
[130] NSW Government, Statutory review of the NSW strata scheme laws – Discussion Paper, November 2020.
[131] NSW Government, Statutory review of the NSW strata scheme laws – Discussion Paper, November 2020, p 62.
[132] NSW Government, Statutory review of the NSW strata scheme laws – Discussion Paper, November 2020, p 62.
[133] NSW Fair Trading, Residential Community Electricity FAQs, accessed 23 September 2021, NSW Government, Residential land lease communities: electricity charging options, accessed 23 September 2021.
[134] NSW Government, Have your say - Residential land lease communities: electricity charging options, accessed 23 September 2021.
[135] Correspondence with DPIE, 21 October 2021.
[136] AER, Updating the Network and Retail Exemption Guidelines – Consultation Paper, May 2021, p 38.
[137] PIAC submission to IPART Draft Report, p 12.
[138] PIAC submission to IPART Draft Report, pp 11-12.
[139] AER, Updating the Network and Retail Exemption Guidelines – Consultation Paper, May 2021, pp 38-39.
[140] IPART, Monitoring the Electricity Retail Market, November 2020, p 20.
[141] NSW Government Gazettes 2001-2021, Gazette No 494 of 1 October 2021 (Electricity and Water), accessed 6 October 2021.
[142] ACCC, Inquiry into the National Electricity Market, May 2021, p 14
[143] NSW Government, Social programs for energy code.
[144] NSW Government, Social programs for energy code, NSW Energy Rebates July-December 2020 excel workbook, Tab: Table 5.
[145] NSW Government, Apply for the Gas Rebate (retail customers), accessed 8 November 2021.
[146] ACCC, Inquiry into the National Electricity Market, May 2021, p 13 and 15
[147] ACCC, Appendix E, Supplementary spreadsheet with billing data and figures, May 2021, Residential usage, Supplementary Table A3.15.
[148] ACCC, Inquiry into the National Electricity Market, May 2021, p 41.
[149] ABS, SEIFA 2016 Technical Paper, March 2018, p 6.
[150] AER, Statement of Expectations of energy businesses: Protecting customers and the energy market during COVID-19, accessed 20 August 2021
[151] EWON, Protection for customers in lockdown ends, accessed 29 November 2021.
[152] Parliament of New South Wales, 6819 – Energy and Environment – Energy Accounts Payment Assistance, accessed 13 September 2021; Liberal NSW, NSW Government Weekly Update – 6 August 2021, Energy bill support for those doing it tough during COVID, 13 September 2021.
[153] ACCC, Inquiry into the National Electricity Market, May 2021, p 13 and 15.
[154] AEMC, Rule determination, National electricity amendment (Deferral of Network Charges) Rule 2020, 6 August 2020, p i.
[155] AER, COVID 19 Retail Market Data Dashboard, July 2021, p 8.
[156] PIAC submission to IPART Draft Report, p 13.
[157] AER, Energy disconnections, accessed 19 November 2021.
[158] AGL submission to IPART Draft Report, p 2.
[159] PIAC submission to IPART Draft Report, p 7.
[160] AER, Energy retailers' customer hardship policies, accessed 18 November 2021.
[161] AER, AER's 2021-2022 compliance and enforcement priorities: Consumer protection, accessed 19 October 2021.
[162] AER, State of the Energy Market 2021, July 2021, p 285.
[163] AGL submission to IPART Draft Report, p1.
[164] AEMC, Rule determination, National electricity amendment (Deferral of Network Charges) Rule 2020, 6 August 2020, p i.
[165] Energy Networks Australia, Presentation on COVID-19 Electricity and Gas Network Relief Package, April 2020.

[166] AEMC, Rule determination, National electricity amendment (Deferral of Network Charges) Rule 2020, 6 August 2020, p i.
[167] Consultation with retailers, August 2021.
[168] Tango Energy renewable energy, accessed 4 November 2021
[169] Origin Energy energy plans, accessed 24 September 2021.

ISBN 978-1-76049-543-5