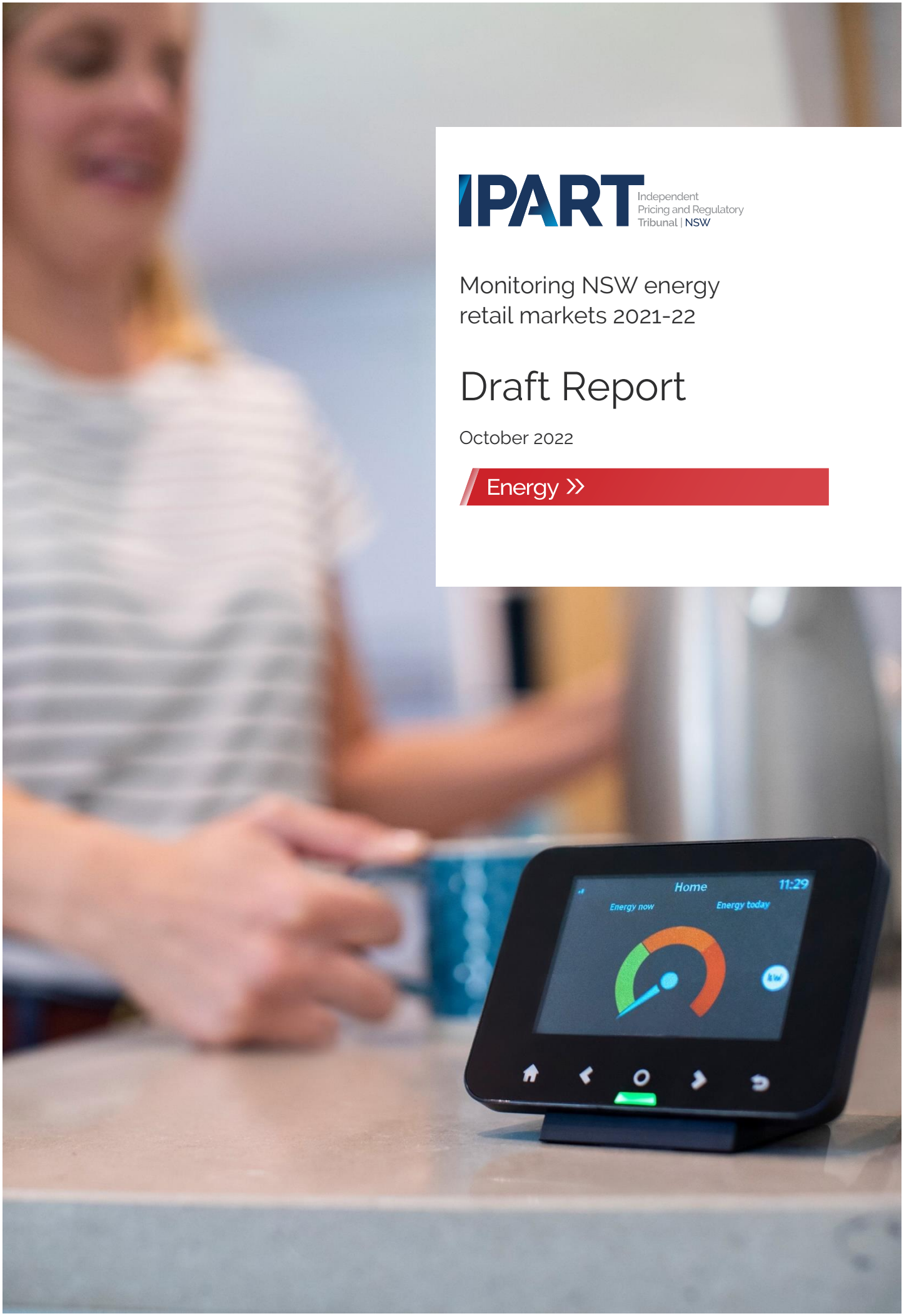

IPART Independent Pricing and Regulatory Tribunal | NSW

Monitoring NSW energy retail markets 2021-22

Draft Report

October 2022

Energy »

Tribunal Members

The Tribunal members for this review are:

Carmel Donnelly PSM Chair
Deborah Cope
Sandra Gamble

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

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Invitation for submissions

IPART invites comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by Monday, 31 October 2022

We prefer to receive them electronically via our online submission form.

You can also send comments by mail to:

Energy Market Monitoring review 2021-22
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop, Sydney NSW 1240

If you require assistance to make a submission (for example, if you would like to make a verbal submission) please contact one of the staff members listed above.

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed above.

We may decide not to publish a submission, for example, if we consider it contains offensive or potentially defamatory information. We generally do not publish sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please let us know when you make the submission. However, it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission policy is available on our website.

The Independent Pricing and Regulatory Tribunal (IPART)

We make the people of NSW better off through independent decisions and advice. 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

IPART is required to report annually on the performance and competitiveness of the retail energy markets. Our report this year is occurring in the context of unprecedented events in wholesale energy markets, and an accelerating transformation of the energy sector. This transformation includes coal-fired power generators announcing early closures and renewable energy sources continuing to grow. This report provides our draft findings on how competition has developed to date, and the new opportunities that will arise from the energy market transformation. This report is focused on retail electricity, with some key insights included on retail gas markets. Detailed findings on competition in retail gas are covered in a separate Information Paper.

Recent high energy costs have driven declining indicators of retail competition

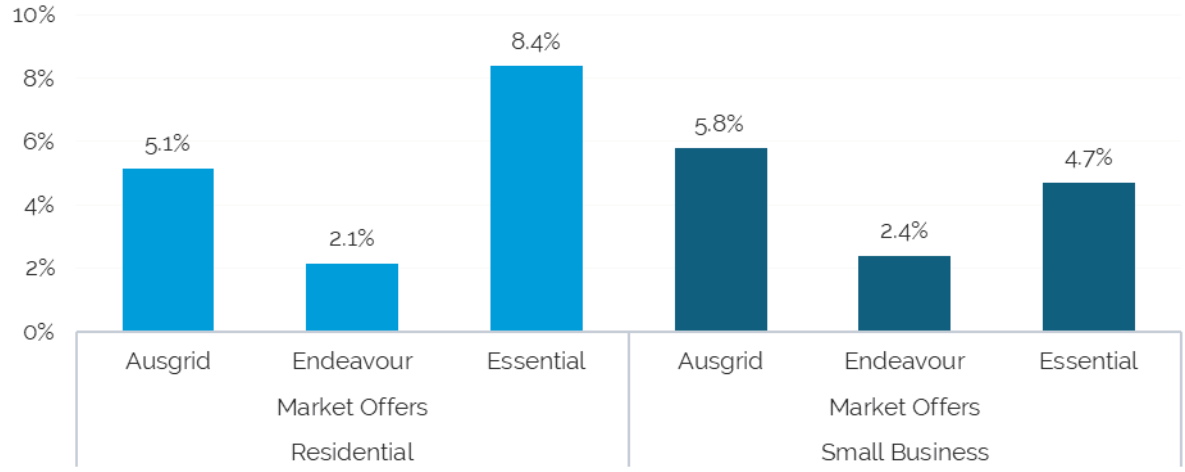
For the first time since deregulation, there are fewer retailers in the market than the previous year. The number of retailers[a] in the market has fallen from 40 to 35 in 2021-22, and then to 27 in August 2022, as seen in Table 1. This was driven by a Retailer of Last Resort (RoLR) event during the April to June 2022 quarter, and another 3 since July 2022. At least 3 other retailers encouraged their customers to switch retailers before 1 July and 11 stopped taking on new customers at some point in the year.

There are also fewer offers in the market at the time of our analysis (August 2022), likely linked to the high costs of new customers to the retailer and the inability in current market conditions to offer as wide a variety of products.

Prices have generally risen over 2021-22, but the steepest increases have occurred since June 2022 (as seen in Figure 1) This is a reversal of the trend of falling prices in previous years.

[a] The number of retailers in the market is defined as the number of retailers in a specified month that are providing offers. In the Energy Made Easy documentation, a published offer is defined as a "generally available plan that is active/available and visible on the website". There are other retailers supplying customers but were not offering contracts to new customers in June 2022. A full list of retailers in the market is provided at Appendix A.

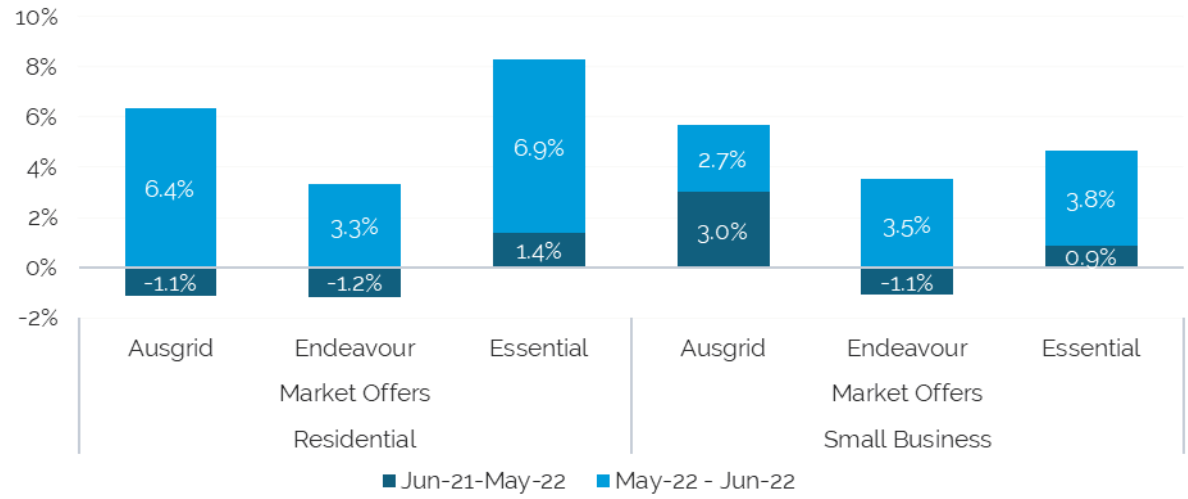
Figure 1 Change in median market offer prices for residential and small business electricity by network area, June 2021 to June 2022



a. Based on 4,215 kWh of residential and 20 MWh of business electricity purchased, including GST, nominal.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Figure 2 Change in median market offer prices for residential and small business electricity by network area, June 2021 to May 2022, and May 2022 to June 2022

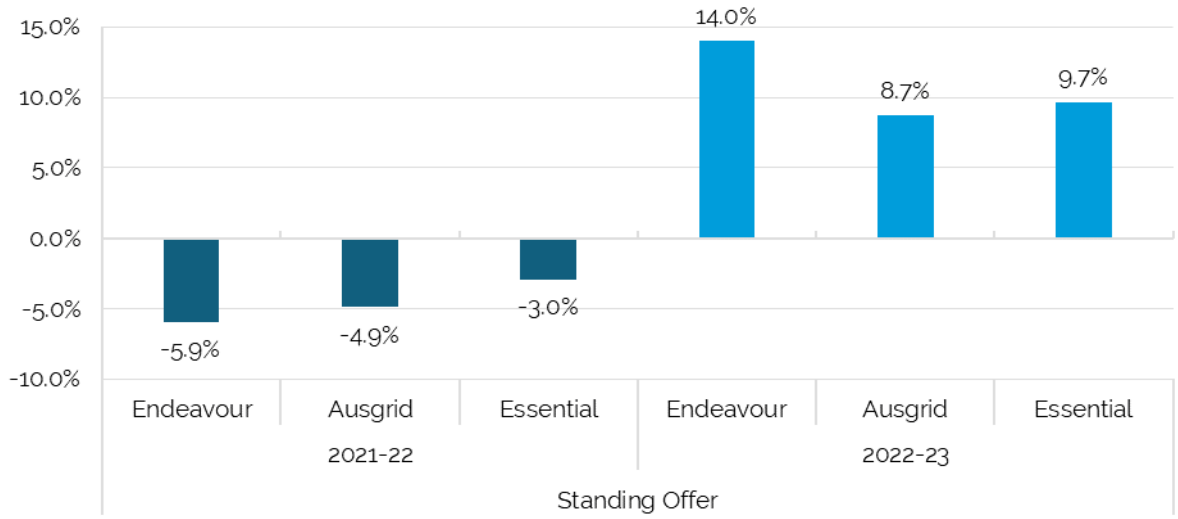


a. Based on 4,215 kWh of residential and 20 MWh of business electricity purchased, including GST, nominal.
b. Jun 21 – May 22 is calculated as the percentage change in the median offer price from June 2021 to May 2022. May 22 – Jun 22 is calculated as the percentage change in the median offer price from May 2022 to June 2022. This is intended to demonstrate relative prices changes at different points in the year. Light blue and dark blue figures cannot be added to measure offer price changes from June 2021 to June 2022.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Standing offer prices for residential customers, which are capped by the default market offer (DMO), initially fell by between 3% and around 6% (depending on the network) when they were reset in July 2021 (Figure 3). However, they rose substantially at the July 2022 reset by between around 9% and 14%. Only about 10% of residential, and about 18% of small business customers are on standing offers (Figure 4.2).

Figure 3 Change from previous year in median standing offers for residential electricity by network area



a. Based on 4,215 kWh of residential electricity purchased, including GST, nominal.
b. 2021-22 refers to the period between June 2021 and June 2022. 2022-23 refers to the period between June 2022 and August 2022.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Over the longer term since electricity was deregulated, residential standing offers were slightly lower in real terms, partly because the DMO is only set once per year and did not incorporate rises in wholesale costs occurring at the end of 2021-22. Standing offers in 2022-23, which account for some of those cost increases, are now higher than in 2013-14. Residential market offers have increased in all areas except the Essential network, but this is entirely attributable to price rises in one month of the year (June). Customer bills may also have increased, though we do not yet have access to information about actual customer bills.

In response to higher prices and the behaviour of some retailers, customers may be increasingly switching to, or back to, larger retailers in a 'flight to safety' in a market under stress. Although the annualised switching rate is similar to previous years (around 19%) there is a notable spike in switching in July 2022.

Table 1 Indicators of competition

	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Market structure							
Number of retailers	22	22	23	25	33	40	June: 35 August: 27
Market share of small retailers	10%	12%	14%	17%	18%	19%	21%
Customer engagement							
% of customers on market offers	69%	74%	78%	83%	87%	88%	89%
Customer switching rates	16%	17%	19%	21%	18%	19%	19%

Source: Analysis based on data from AER, Retail energy market performance update for Quarter 3, 2021–22; June 2022.

Fewer retailers and reduced offer diversity coupled with higher offer prices are typically seen as indicators of poorer competition in the market. However, this does not necessarily mean that competition is ineffective or failing consumers when considered within a broader context:

- The number of retailers in the market in June 2022 was still higher than at any time from 2015-16 to 2019-20. Given the severity of recent wholesale price shocks (which are external to the retail market), this could be seen as a sign of resilience. Not all markets have demonstrated such resilience.
  - For example, recent wholesale price shocks in the United Kingdom have seen a 50% reduction in the number of retailers over the year to December 2021[1], affecting millions of customers and driving up costs for consumers.[2]
  - If 2022-23 continues to see smaller retailers leaving the market, this may be a sign that the current volatile wholesale cost environment is not suitable for smaller retailers. Over the medium term this may have implications for competition. Market entries and exits over the coming years, may be an indicator of how the competitive market deals with the risks of the wholesale energy market.
- While 2021-22 saw moderate price rises over the year, the vast majority of the price increases happened after June 2022 in response to a large wholesale price spike.

Customers can still benefit from shopping around despite similarly priced market and standing offers

Recent offer prices in July and August 2022 show the difference between median market and median standing offers has dropped dramatically (see Figure 4 below). These are now closer together in price than at any other time since IPART began its market monitoring role. Our review of offers in the market shows that the median market discount off the residential standing offer has dropped from around 15% in May to less than 2% in August. .

While there is still benefit for customers to shop around for a better deal, that benefit is likely to be smaller than at any other time since deregulation of retail electricity. For customers on market offers who have not shopped around recently, there may still be a better deal in the market if their original discounts have expired or if their current offer prices have been increased.[b] Further, although the spread of offers has narrowed, there are still offers available that may represent a better deal for customers.

[b] Noting that some market offers are now above the DMO. See section 4.6.

The energy market is currently undergoing a period of volatility characterised by unprecedented wholesale prices and market intervention

The final few months of 2021-22 saw unprecedented outcomes for wholesale gas markets and wholesale electricity markets in NSW, and more broadly across eastern Australia. These outcomes included:

01	Average wholesale gas spot prices of $28.40/GJ across eastern Australia for Q4 2021-22 compared with $8.20/GJ during the same period the previous year (Q4 2020-21).
02	Due to these high wholesale gas spot prices, and a RoLRevent, the wholesale gas market in NSW was placed under an administered price cap of $40/GJ from 24 May 2022 to 7 June 2022.
03	Average wholesale electricity spot prices of $264/MWh across the National Electricity Market (NEM) for Q4 2021-22, compared with $85/MWh during the same period the previous year (Q4 2020-21).
04	The frequency of spot prices above $300/MWh was 26% in Q4 2021-22, compared with 1% in Q2 2020-21.
05	Due to the prolonged period of high prices, New South Wales (along with South Australia and Victoria) was placed under an administered price cap of $300/MWh on 13 June 2022.
06	The application of the administered price cap coincided with reductions in the volume of generation offered into the market. The Australian Energy Market Operator (AEMO) intervened by directing generators to make generation capacity available for dispatch, and by cancelling outages.
07	Despite taking these actions, AEMO concluded that its automated systems and processes became impossible to manage, and so the wholesale spot market was suspended from 15 June 2022 to 24 June 2022.
08	As spot prices for gas and electricity increased from around March 2022, forward prices for gas and electricity were also increasing.

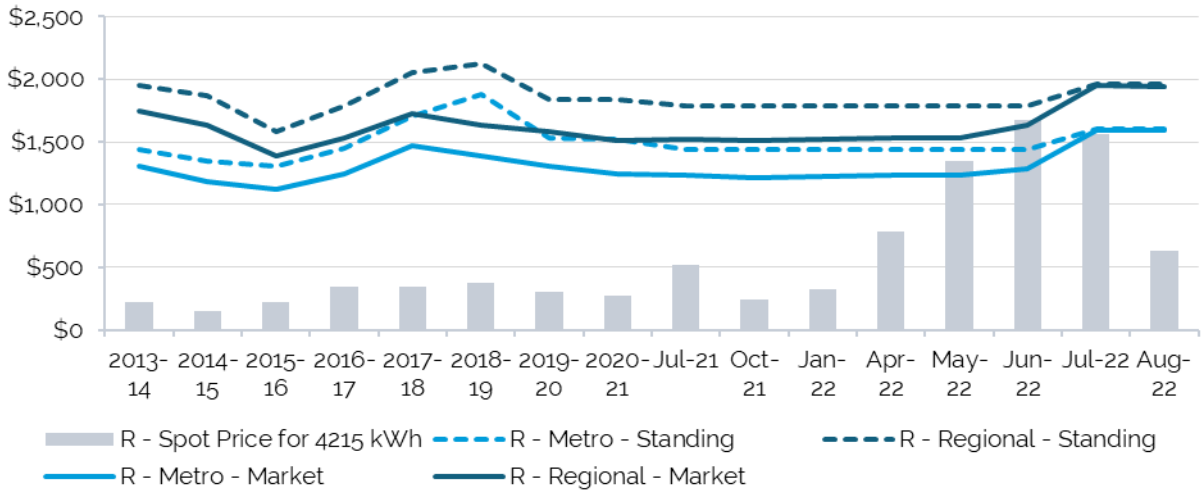
This unprecedented series of events in east coast energy markets was driven by a number of factors, including:

- The war in Ukraine, which has created an international gas shortage and consequently high international gas prices. This has resulted in a higher domestic price consistent with high international prices,
- coal-fired generation outages,
- elevated levels of gas-fired generation,
- fuel supply issues, and
- an unusually cold start to winter in June.

The retail impacts of this energy market 'crisis' only emerged towards the end of the 2021-22 year, with most impacts likely to be felt in 2022-23.

Electricity and gas retailers are generally 'hedged' against volatile gas and electricity spot prices. For retailers that are 'hedged', the increase in gas and electricity spot prices does not necessarily increase their costs. This is likely one of the key reasons that retail gas and electricity prices did not increase markedly over Q4 2021-22 and stayed at levels similar to other years since deregulation. However, there is evidence towards the end of the 2021-22 year, and in July and August 2022, that these wholesale market impacts are filtering through to retail offers.

Figure 4 Annual residential electricity bills for median offers by offer type and region in NSW compared to spot price



a. Annual electricity bills based on 4,215 kWh of residential electricity purchased, including GST, nominal.
b. Spot price based on average wholesale electricity price in each period for 4,215 kWh of electricity
c. Regional refers to median of all offers in the Essential Energy network. Metro refers to the median of all offers in the Ausgrid and Endeavour Energy networks.

Source: IPART analysis of data from Energy Made Easy, wholesale electricity price data from AEMO. Accessed May-August 2022 respectively.

Figure 4 shows a number of key impacts emerging in retail electricity offers from June to August 2022, including that:

- Median market offer prices rose sharply. The median market offer price in July 2022 is higher than at any other time since IPART began monitoring the market. Standing offers also rose in July 2022, noting that standing offers are set based on the AER's determination of the DMO which is only updated once a year.

- From May to July 2022, the retailer cost of purchasing energy on the spot market exceeds the total customer bill. That is, the spot market cost of just the electricity needed for a typical residential customer (4,215 kWh) exceeds the entire bill that customer would pay the retailer. Although most prudent retailers would not face this cost because they typically hedge most of their load, this gives an indication of the high costs retailers would have faced for any unhedged components of their load, for example contracts that have rolled over or unexpected new load. Under these conditions retailers may face pressure to reduce intake of new customers because they come at a net cost to the retailer.[3] As Chapter 3 explores further, a number of retailers withdrew all offers in the market in 2021-22 and stopped taking on new customers.

In the longer-term, higher spot prices are likely to increase the cost of hedging instruments. As these hedging instruments become more expensive, retailers' costs will increase. While not directly relevant to this report on outcomes during 2021-22, the increase in the cost of hedging instruments is likely to have material consequences for retail market outcomes in 2022-23. A number of other costs are also yet to be passed through to customers, such as the costs of compensation to generators due to AEMO's market interventions listed above.[c] The full amount of compensation for generators during the period of market suspension is currently being finalised by AEMO pending an independent expert determination. The claims for compensation by generators for the period of the administered price is cap will be progressively assessed and determined by the AEMC.[d]

[c] See section 4.1.3 for more detail.
[d] AEMO 2022, June 2022 NEM Events: Compensation Update (15 August 2022).

Draft Findings

1. Retailers are still competing for customers, but key indicators of competition are now in decline: 48
   - There are now 27 retailers in the market (35 at the end of 2021-22), which represents the first year-on-year reduction in the number of retailers since deregulation. However, this is still more than twice the number of retailers in 2013-14 when we first started monitoring the market.
   - Retailers compete for customers on price, but substantially less so than in previous years as high wholesale prices dramatically reduce the discount retailers are able to provide relative to the standing offer. The lowest offers in the market in June 2022 are only around 11% lower than the highest market offers.
   - Retailers are still offering service innovation, aligned with the imperative to avoid high wholesale costs and leverage value from distributed energy resources and demand flexibility.

2. Customers continue to engage in the market in 2021-22: 52
   - Switching rates decreased slightly from 19% to 18.7%, but are still consistent with switching rates over previous years.
   - The proportion of residential customers on market offers is similar to previous years - at 90%, and 82% for business customers (up from 81%).

3. Reported satisfaction with electricity retail services over 2021-22 decreased slightly. 54

4. The number of electricity-related complaints to the EWON was lower compared to previous years. 54

5. The market concentration reduced slightly in 2021-22, but this likely reflects the timeframe of available data which does not capture Q4 2021-22 and should be revisited when new data is available. The combined market share of the Big 3 retailers was down slightly on last year. In 2022-22: 58
   - 79% of customers are supplied by the Big 3.
   - 95% of customers are supplied by 10 retailers. The remaining 5% of the market is shared between 25 retailers.

6. Market offer prices were mostly flat over most of 2021-22, with stronger increases occurring in June and substantial increases occurring in July and August: 74
   - The median market offer for residential and business customers rose by between around 2% to 8% in nominal terms from June 2021 to June 2022.
   - The median standing offer fell moderately following the 1 July 2021 reset of the DMO, but rose substantially following the 1 July 2022 reset by around 9% to 25% in nominal terms.

7. Price changes broadly reflected the underlying changes in costs in 2021-22 – wholesale prices specifically. A detailed review of prices and profit margins is not required. 74

8. Compared to 2013-14 when retail electricity was deregulated, market offer prices were lower in 2021-22 in all networks. However, as at August 2022 they are now higher than 2013-14 in real terms by 3% in the Ausgrid and Endeavour networks. This only the case because of price rises in June, July and August 2022. 74

9. Standing offers remained lower than historic peaks around 2018-19 in all networks. In the Ausgrid and Endeavour networks standing offers in 2021-22 were similar to 2013-14 when retail electricity was deregulated, but were lower in the Essential network, noting that the standing offer does not account for the full extent of recent wholesale market price volatility. 83

10. Standing offers rose materially on 1 July 2022 to reflect higher wholesale energy costs and higher than in 2013-14 in all networks. Some retailers have now set their lowest market offers above the standing offer. 83

11. The DMO functioned effectively as a reference price that caps standing offers in 2012-22, however early developments in 2022-23 suggest it will need to be closely observed next year to ensure it provides enough headroom for retailers to enable competition. 84

Draft Recommendations

1. The NSW Government should provide energy customers with clear, independent information about innovative energy retail offers that involve: 40
   - new technologies, such as solar panels, batteries, electric vehicles, smart home devices
   - service bundling, including where energy services, technology and equipment are bundled with non-energy services
   - demand response schemes.

   This information should aim to assist customers to understand new innovative energy services and products, enable customers to make the best choice for their circumstances, and promote sustainable use. This can build on the work already undertaken by the NSW Government including providing information on energy services and technologies, and Service NSW advice for customers about accessing rebates and support.

2. The NSW Government should consider options to promote awareness of current government initiatives and support programs for customers to reduce their energy costs and transition to more sustainable energy use, prioritising those customers experiencing vulnerability. 40

Contents

Chapter 1

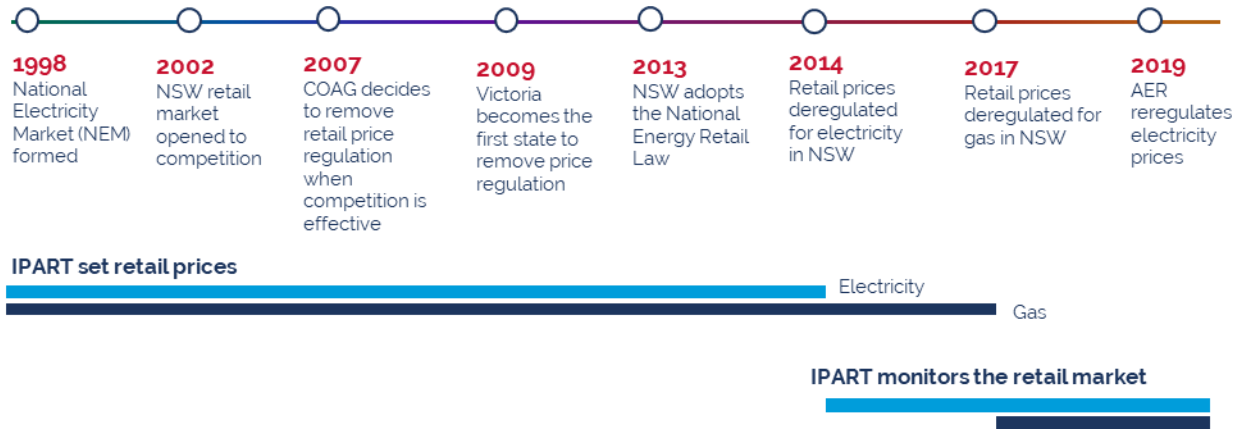
Introduction

01

The NSW Government opened the electricity and gas retail markets to competition in 2002.[4] 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 removed from July 2014 for electricity,[5] when the AEMC found that competition was sufficiently developed,[6] and July 2017 for gas.[7] IPART has since been required to monitor competition in these markets.[8]

Figure 1.1 Timeline of IPART's role setting and monitoring retail energy prices



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.[9]

More recently, wholesale costs have been volatile as the generation mix has started to change and the end of 2021-22 saw unprecedented wholesale price peaks for both electricity and gas, as discussed in more detail in Chapter 2. The focus of ongoing energy market reforms is on ensuring sufficient investment in new generation and storage, 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.

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

1.1 What do we report on?

Our market monitoring role is set out in the National Energy Retail Law (NSW).[10] 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 (Chapter 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).

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 (discussed in Chapter 2).
- whether a detailed review of retail prices and profit margins in each market is required (discussed in Section 6.2.1).

We can also report on any other relevant matter. As part of our Draft Report, we have considered:

- The impact on retail energy markets of the recent 'energy crisis' of very high wholesale energy prices for both electricity and gas (Chapter 2 and 3)
- Key updates on the energy market transition and key reforms, both in NSW and nationally, and what this means for retail competition and climate change (Chapter 2)
- Ongoing impacts on customers and retailers of:
  - COVID-19 (Chapter 6)
  - the default market offer (Chapter 7)
- Pricing for customers in embedded networks (Chapter 8)

This report is focused on small retail electricity customers, with some key insights included on retail gas markets. Detailed findings on competition in retail gas are covered in a separate Information Paper.

1.2 Purpose of our report

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 1.1). Given this broader oversight of the markets, our report is focused 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.[11]

Our report uses the most up-to-date information available at the time of analysis, which included public information available as at August 2022.

In addition to our annual market monitoring reports, 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.[12] We have not been asked to conduct a special review this year.

Table 1.1 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	2016	Quarterly
AEMC	Competition – NEM	Electricity and gas	2014	June each year. The AEMC did not release a report in 2021 or 2022.
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.

1.3 Report timetable

We commenced preparing this report in July this year and have met with several energy consumer stakeholders and retailers. We welcome submissions to this Draft Report by 24 October 2022. After considering submissions and undertaking further analysis, we will submit our Final Report to the Treasurer and Minister for Energy by 30 November 2022

Figure 1.2 Report timeline

Chapter 2

Key context for this report

02

2.1 What are the benefits of competition?

Competition was introduced into energy retail markets to provide value for customers in the longer term. Without competition, there are limited incentives for businesses to become more efficient over time.

In a competitive market, businesses 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 (including a reasonable profit), then they will be outcompeted and lose customers.

2.1.1 Market driven cost reductions should outweigh the costs to competition

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. This report follows a period of volatility in wholesale energy markets that has seen unprecedented price peaks that will impact retailers in the market, and ultimately, customers.

2.1.2 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 and less willing or able to switch retailers – 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 provide 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 improve. Our recommendations in previous reports have focused on measures that would help customers engage effectively and regularly in the market to ensure they can access the best price. This may be more important than ever now as the energy market transitions to a renewable fuel mix and retailers develop new and innovative offers that leverage value available from distributed energy resources and flexible consumer demand. These offers can be complex and inherently more difficult to understand, and ensuring customers are sufficiently informed and empowered to make the best decision for them may be more challenging.

In 2019-20, the Australian Energy Regulator re-introduced a cap on the prices that retailers can charge.[a] This is called the DMO.[b] This was intended to balance the objectives of protecting customers on standing offers 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. Since the DMO was implemented, the gap between the highest and lowest prices has narrowed (as discussed in Appendix C).

2.1.3 Competitive markets can still see prices rises, but should deliver lower prices over time

Although retailers constantly face competitive pressure to either lower their prices or develop new and better products, this does not mean that competitive markets are immune to price rises. Even efficient, competitive retailers must respond to external cost pressures they can't control (though we would expect retailers may have different ways of responding). In electricity markets, for example, this can include the network costs faced by retailers, or increases in the cost of energy itself (discussed in Chapter 2). Where retail energy markets are faced with externally driven shocks, the way the market responds is not necessarily a benchmark of competition. Even in a market where competition is deemed to be delivering good outcomes for customers including low prices and choice under average conditions, fluctuations in price, are still expected when conditions change. However, over the long run, we would expect competition to deliver lower prices and more choice on average compared to a situation without competition, where retailers face no incentive to adapt to consumer preferences for lower prices or innovative products.

2.1.4 Strong protections are required for customers experiencing vulnerability

Energy is different from other products because it is an essential service. 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 provide energy-specific consumer protections and more detailed provisions regulating the rights and obligations of retailers and consumers in retailer energy markets.

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

[a] See AER website.
[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.

2.2 Unprecedented events in wholesale energy markets

This report is focused on market and customer outcomes in retail electricity and gas markets in NSW over the 2021-22 year. However, these outcomes can be strongly influenced by events in wholesale markets for electricity and gas. Energy retailers procure the energy their customers need from wholesale markets. In electricity markets:

- A retailer is required to pay for all the electricity its customers use in the wholesale spot market at the prevailing spot price, which changes every 5 minutes.
- A retailer can manage its exposure to volatile spot prices by:
  - owning electricity generation, in which case the spot price the retailer receives for its electricity generation offsets the spot price the retailer pays for its customers' electricity consumption.
  - entering into a long-term agreement to purchase electricity at a fixed price from a generator (commonly known as a Power Purchase Agreement), which means the retailer will face the fixed contract price rather than the volatile spot price.
  - entering into short-term financial hedging contracts (such as those traded on the ASX), which mean that the retailer will face the fixed contract prices rather than the volatile spot price. These are monthly and quarterly hedging contracts, that generally trade for 2 to 3 years in advance of the month or quarter.

In gas markets, a retailer can:

- purchase gas through one or more of the wholesale spot markets that operate in eastern Australia, at prevailing spot prices that generally change every day.
- purchase gas at a fixed price through a short-term or long-term agreement with a gas supplier or gas trader (commonly known as a Gas Supply Agreement).
- enter into short-term financial hedging contracts (such as those traded on the ASX), which mean that the retailer will face the fixed contract prices rather than the volatile spot price. These contracts are used less commonly in gas markets than in electricity markets.

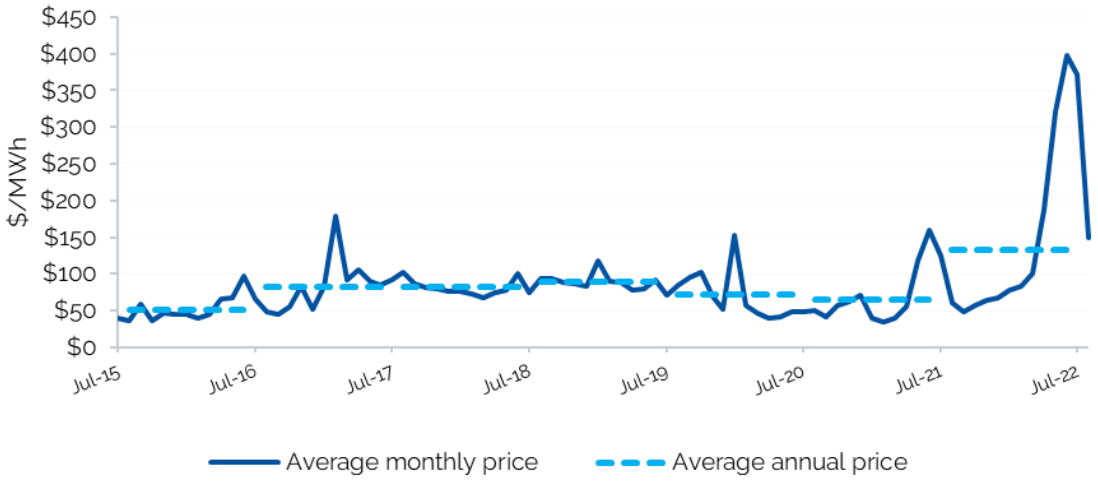
The costs of procuring energy from the wholesale market make up a substantial proportion of overall costs that retailers must ultimately recover from end customers (about 36% for residential electricity customers in 2021-22[13] and about 27% for residential gas customers in 2017[14], the last year for which data is reported). Therefore, sustained cost increases in wholesale energy can have material consequences for retail markets.

Wholesale energy markets have recently undergone a period of substantial volatility. The final few months of 2021-22 saw unprecedented outcomes for wholesale gas markets and wholesale electricity markets in NSW and across eastern Australia. These outcomes received substantial media coverage, often dubbed an 'energy crisis'[15] and included:

Average wholesale gas spot prices of $28.40/GJ across eastern Australia for Q4 2021-22, compared with $8.20/GJ during the same period the previous year (Q4 2020-21).[16] Wholesale gas spot prices for NSW are shown in Figure 2.2.

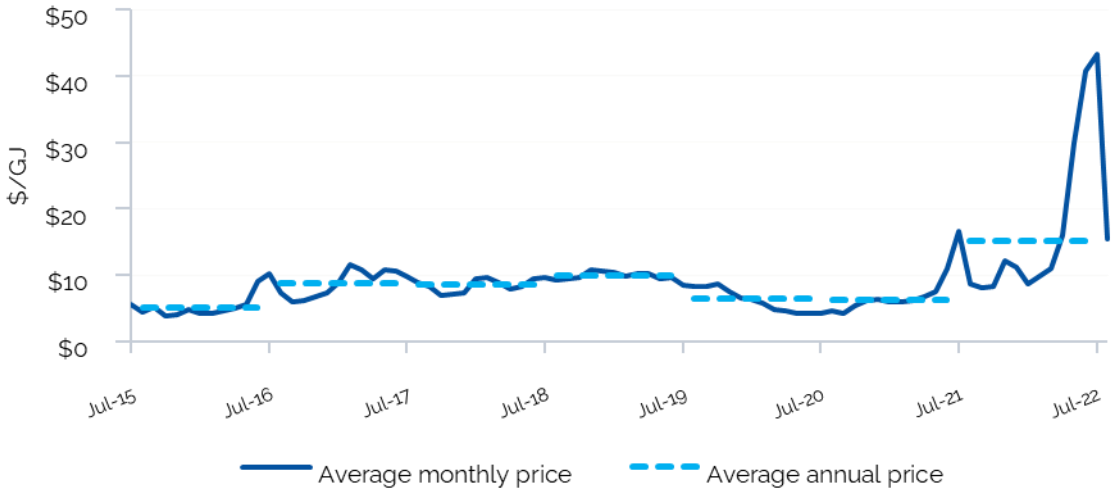
1. Due to these high wholesale gas spot prices, and a RoLR event, the wholesale gas market in NSW was placed under an administered price cap of $40/GJ from 24 May 2022 to 7 June 2022.[17]
2. Average wholesale electricity spot prices of $264/MWh across the National Electricity Market (NEM) for Q4 2021-22, compared with $85/MWh during the same period the previous year (Q2 2020-21).[18] Wholesale electricity spot prices for NSW are shown in Figure 2.1.
3. The frequency of spot prices above $300/MWh was 26% in Q4 2021-22, compared with 1% in Q4 2020-21.[19]
4. Due to the prolonged period of high prices, New South Wales (along with South Australia and Victoria) was placed under an administered price cap of $300/MWh on 13 June 2022.[20]
5. The application of the administered price cap coincided with reductions in the volume of generation offered into the market. The AEMO intervened by directing generators to make generation capacity available for dispatch, and by cancelling outages.[21]
6. Despite taking these actions, AEMO concluded that its automated systems and processes became impossible to manage, and so the wholesale spot market was suspended from 15 June 2022 to 24 June 2022.[22]
7. As spot prices for gas and electricity increased from around March 2022, forward prices for gas and electricity were also increasing.

Figure 2.1 Historical electricity spot prices in NSW ($nominal)



Source: IPART analysis of AEMO NEMWEB data

Figure 2.2 Historical domestic gas spot prices in NSW ($nominal)



Source: IPART analysis of AEMO STTM data

2.2.1 Increasing fuel prices combined with temporary factors to drive the sudden spike in wholesale prices

In its most recent quarterly report on wholesale electricity and gas markets, the AER investigated the causes of the high prices and market instability that occurred during the final few months of 2021-22.

The AER notes that key drivers of market outcomes were higher international prices for LNG and coal, which affect domestic gas and coal prices.[23] These international fuel prices increased from late 2021, and this increase in prices accelerated during 2022, driven by the war in Ukraine.

However, the effects of these higher fuel costs were exacerbated during Q4 2021-22 by an 'energy squeeze' that was caused by a number of co-incident factors occurring within a short period, specifically:[24]

- issues with domestic fuel supply, which reduced supply from some generators;
- plant outages;
- lower than expected wind and solar output; and
- an early start to winter, resulting in increased demand for gas and electricity.

The AER notes that the confluence of these events resulted in a significant increase in the typical prices at which electricity and gas were offered into the market. That is, rather than the higher gas and electricity prices being driven by a small number of price spikes, the higher gas and electricity prices were driven by systematically higher prices.[25]

The AER's analysis of futures market prices indicates that these high prices in Q4 2021-22 were largely unexpected by the market, even as recently as the start of 2022, but that higher prices are now expected to persist.[26]

2.3 Forward market data suggests high wholesale prices will continue

2.3.1 High spot prices for gas and electricity

Both wholesale gas spot prices and wholesale electricity prices increased during Q4 2021-22 in NSW (see Figure 2.1 and Figure 2.2), and more broadly across eastern Australia.

Wholesale gas prices have been increasing globally since late 2021, with domestic gas prices seeing similar increases beginning in March 2022.[27] The ACCC concluded that these increases in domestic gas prices were driven in part by: [28]

- high international prices for coal and gas, partly due to the war in Ukraine which has created an international gas shortage. This has resulted in an increase to the domestic price to compete with high international prices,
- coal-fired generation outages (increasing demand for gas by gas-powered generators),
- an unusually cold start to winter in June.

Wholesale electricity spot prices in NSW also began to increase in March 2022 (see Figure 2.1). AEMO has concluded that these higher prices were driven by multiple factors, "including high international commodity prices, coal-fired generation outages, elevated levels of gas-fired generation, fuel supply issues, and many east coast cities experiencing their coldest start to June in decades".[29]

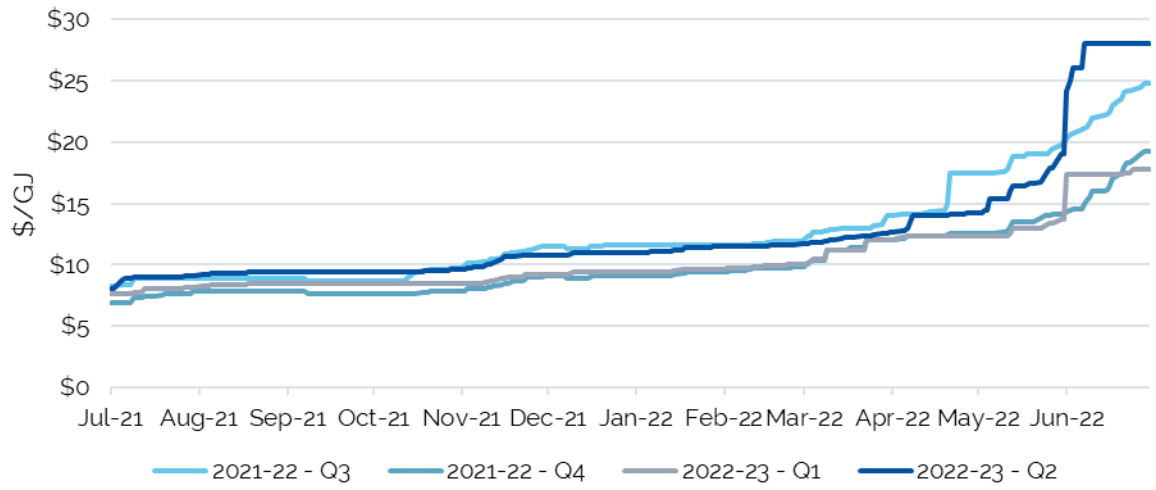
2.3.2 High contract prices for gas and electricity

Financial contracts for managing exposure to volatile gas and electricity spot prices are traded on ASXEnergy:

- Quarterly electricity futures contracts for NSW are commonly used by retailers to 'lock in' the cost of wholesale electricity.
- Quarterly gas futures contracts for NSW are not traded on ASXEnergy, but quarterly gas futures contracts for Victoria are traded on ASXEnergy and can be used as an indication of future gas prices in NSW (given that gas prices across eastern Australia are generally strongly related).

Figure 2.3 shows the daily price of gas futures contracts for Victoria for each quarter of 2022-23 since 1 July 2021. These contracts have traded for a number of years. The prices of these contracts have increased substantially since March 2022, coinciding with the period over which gas spot prices increased. The prices at which these contracts were trading on 30 June 2022 is between 2.3 and 3.5 times the price at which they were trading on 1 July 2021.

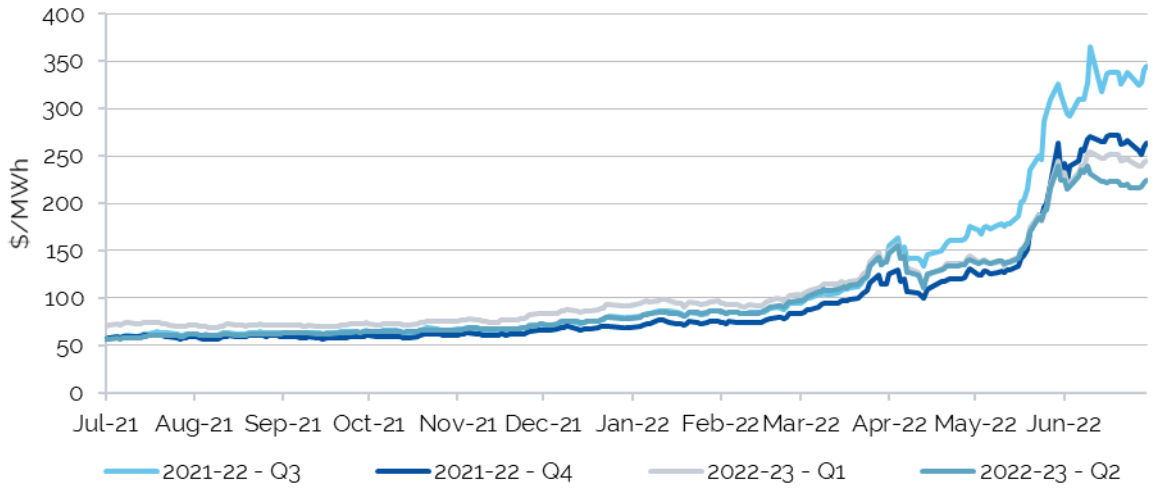
Figure 2.3 Victorian gas futures contracts for 2022-23



Source: ASXEnergy

Figure 2.4 shows the price of electricity futures contracts for NSW for each quarter of 2022-23. Prices of these contracts have increased substantially since March 2022, coinciding with the period over which electricity spot prices increased. The prices at which these contracts were trading on 30 June 2022 is between 3.5 and 6 times the price at which they were trading on 1 July 2021.

Figure 2.4 New South Wales electricity futures contracts for 2022-23



Source: ASXEnergy

These increases in gas and electricity futures prices, combined with spot prices that are likely to remain at elevated levels, are expected to result in material increases in retail gas and electricity prices during 2022-23.

2.3.3 Cost of administered price cap and market suspension

Another factor that may result in higher retail electricity prices for 2022-23 is that certain costs arise as a result of AEMO directions to generators, including:

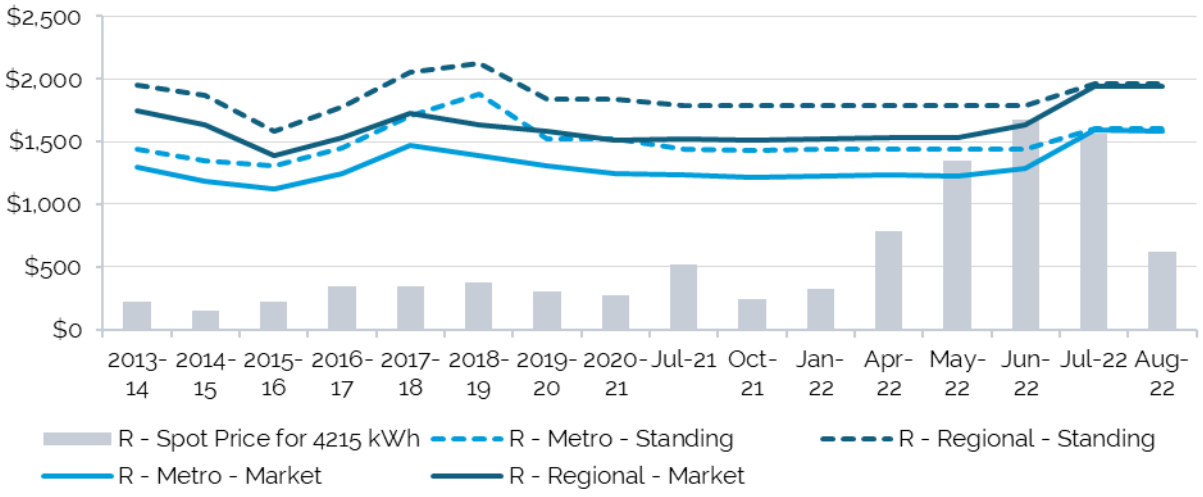
- generators must be compensated when they are required to operate at times when their costs exceeded the administered price cap,
- generators must be compensated when they are required to operate at times when their costs exceeded prices during the market suspension.

These additional costs are expected to be recovered from retailers during 2022-23.[30]

2.4 The retail impacts of high wholesale prices appeared towards the end of the 2021-22 year but will be greatest in years to come

Electricity and gas retailers are generally 'hedged' against volatile gas and electricity spot prices. For instance, gas retailers will generally procure much of their wholesale gas through gas supply agreements of one or more years, which will provide pricing certainty. Similarly, electricity retailers will generally procure wholesale electricity through power purchase agreements of one or more years, or will enter into financial hedging arrangements that provide pricing certainty. For retailers that are 'hedged', the increase in gas and electricity spot prices does not necessarily increase their costs. This is likely one of the key reasons that retail gas and electricity prices did not increase markedly over Q4 2021-22 and stayed at levels similar to other years since deregulation. However, there is evidence towards the end of the 2021-22 year, and since the end of 2021-22, that these wholesale market impacts are filtering through to retail offers.

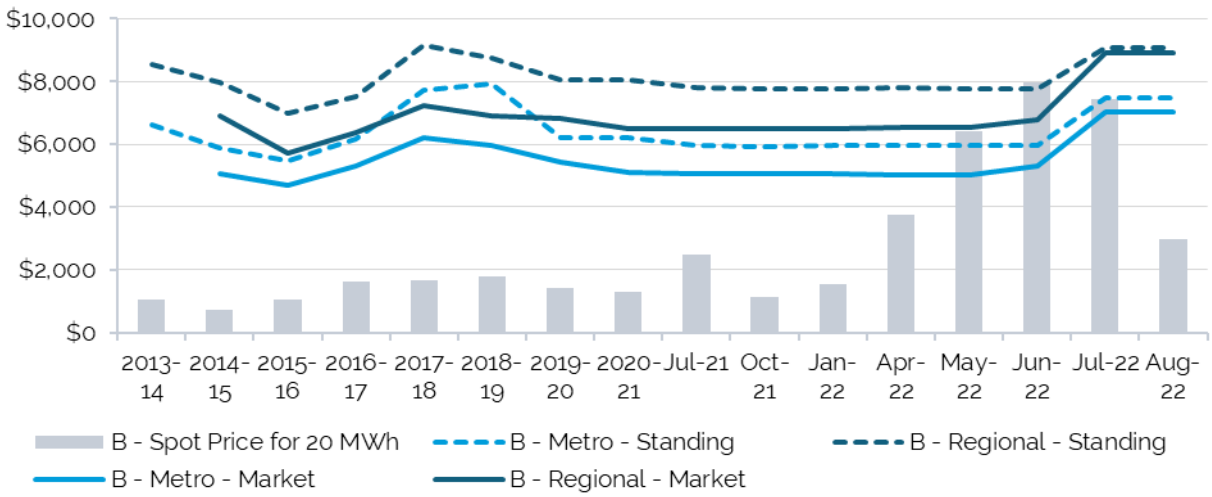
Figure 2.5 Annual residential electricity bills for median offers by offer type and region in NSW compared to spot price



a. Annual electricity bills based on 4,215 kWh of residential electricity purchased, including GST, nominal.
b. Spot price based on average wholesale electricity price in each period for 4,215 kWh of electricity
c. Regional refers to median of all offers in the Essential Energy network. Metro refers to the median of all offers in the Ausgrid and Endeavour Energy networks.

Source: IPART analysis of data from Energy Made Easy, wholesale electricity price data from AEMO. Accessed May-August 2022 respectively.

Figure 2.6 Annual business electricity bills for median offers by offer type and region in NSW, compared to spot price



a. Annual electricity bills based on 20 MWh kWh of business electricity purchased, including GST, nominal.
b. Spot price based on average wholesale electricity price in each period for 20 MWh of electricity
c. Regional refers to median of all offers in the Essential Energy network. Metro refers to the median of all offers in the Ausgrid and Endeavour Energy networks.

Source: IPART analysis of data from Energy Made Easy, wholesale electricity price data from AEMO. Accessed May-August 2022 respectively.

Figure 2.5 and Figure 2.6 show the median electricity standing offer over time, compared with the cost of purchasing electricity on the spot market (for residential and business customers respectively, that is, 4,215 kWh and 20 MWh). This comparison shows a number of key impacts emerging in retail electricity offers in June, July and August 2022, including that:

- Median market offer prices rose sharply. The median price in July 2022 is higher than at any other time since IPART began monitoring the market.
- For May, June, and July 2022, the retailer cost of purchasing energy on the spot market exceeds the total customer bill for that consumption (4,215 kWh for retail customers, 20 MWh for business customers). Although retailers would not face this cost in reality because they typically hedge most of their load, this gives an indication of the high costs retailers would have faced for any unhedged components of their load, for example contracts that have rolled over or unexpected new load. As a result, several retailers stopped taking on new customers, at least until they could reset their rates. This is evident in their withdrawal of retail offers in the market in 2021-22 (see Chapter 3 for more detail). Whereas other retailers limited new sign-ups to households with rooftop solar and/or a battery to avoid customers imposing a net cost to the retailer.[31]

In the longer-term, higher spot prices are likely to increase the cost of hedging instruments. As these hedging instruments become more expensive, retailers' costs will increase. While not directly relevant to this report on outcomes during 2021-22, the increase in the cost of hedging instruments is likely to have material consequences for retail market outcomes in 2022-23. A number of other costs are also yet to be passed through to customers, such as the costs of AEMO's market interventions.[c] The full amount that will be passed on is currently unknown, but would add to costs and prices that are already rising. AEMO has published the provisional amounts of compensation for Reliability and Emergency Reserve Trader (RERT) payments, directions and suspension pricing, which is $79.72m in total for NSW.[32] AEMO state that there is the potential for additional compensation for directions and suspension pricing which is yet to be finalised pending AEMO and independent expert determination, as well as claims for administered pricing compensation that are to be assessed and determined by the AEMC.[33]

2.4.1 Sudden high wholesale prices have driven exits from the market and withdrawal of offers

The high and unexpectedly sudden wholesale price rises resulted in 3 RoLR events in the NEM during the April to June 2022 quarter. Under the National Energy Retail Law and National Gas Rules, AEMO suspended the rights of Pooled Energy, Weston Energy[d] and Enova Energy from acquiring electricity and gas from wholesale markets, which affected customers in NSW, QLD, ACT and SA.[34] As shown in Figure 2.7 the RoLR events are clustered around the time when spot prices started increasing. The last RoLR notice before 2022 was on 3 May 2019.

Figure 2.7 Electricity spot prices in NSW from July 2021, with RoLR events ($nominal)

Source: IPART analysis of AEMO NEMWEB data and AER authorisation revocations for Pooled Energy, Enova Energy, Power Club, Mojo Power East, and Social Energy

[c] See section 4.1.3 for more detail.
[d] Weston Energy is not included in our overlay of electricity spot prices and RoLR events because they did not serve small customers in NSW.

Box 2.1 Retailer of Last Resort framework in NSW

The National Energy Retail Law (NERL) sets out a mechanism to be followed in the event of the failure of an electricity or gas retailer, to ensure the orderly transfer of the retail customers of that failed retailer, to a new retailer, without disruption of supply. This mechanism is known as the RoLR scheme.

Under the RoLR scheme, once the scheme is triggered the customers of the failed retailer are immediately allocated to one or more other retailers who perform the role of RoLR. The retailers who perform the role of RoLR in NSW are AGL Energy, EnergyAustralia and Origin Energy, for both electricity and gas. Transferred customers are placed on the standard retail contract of these retailers which is capped by the DMO.

Source: AEMC, Review of the Retailer of Last Resort Scheme, Final Report, 25 February 2021, AER Register of RoLRs.

Consumer protections ensured these customers stayed connected and were automatically transferred to alternative retailers. The maximum these new retailers can charge their transferred customers is the DMO set by the AER, and customers are entitled to switch to another retailer of their choice thereafter.[35] From initial stakeholder consultation, it seems that the customer experience of a RoLR event is typically fairly smooth, and there is no disruption to service as customers transition to a new retailer.[36] Also, customers of small and perhaps more specialised retailers that can be liable to fail tend to be those most able to shop around and find a better deal following a RoLR event.[37]

Stakeholders suggested that the main issue for customers experiencing a RoLR event is the potential bill shock they may face once they move to a larger retailer on the standing offer.[38] Even once the customer shops around, market offers may now be substantially more than what they were previously paying (see Chapter 6 for more detail on this).

These RoLR events continue to occur in the 2022-23 financial year. Since 1 July 2022, the AER has revoked the registration of 3 electricity retailers – Power Club, Mojo Power East and Social Energy.[39] The impact on retailers of taking on unexpected new customers in the current market can be challenging because of the cost of servicing unhedged load.[40]

Many retailers also urged their customers to consider switching providers amid this energy crisis. Although they remained in business, ReAmped Energy, Discover Energy and Electricity in a Box, among others, encouraged their customers to switch or else face significant increases in their retail prices.[41]

2.5 The mix of energy generation in the market is transitioning to meet the changing needs of customers

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, for a number of reasons there has been reduced investment in the wholesale market over the past decade. There is also additional short-term uncertainty in the market as both retailers and wholesalers respond and adapt to the recent period of unprecedented prices for energy. Over the medium term, the shifting mix of generation will fundamentally change how the energy system operates.

Various expert market bodies have been undertaking significant work in reforming electricity and gas markets so that they are able to meet the changing needs of the system and customers. 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.[42]

We provide a high-level overview of a number of key developments in the energy market transition and related reforms below.

2.5.1 Accelerating coal fired generation exits will speed the transition to an alternative fuel mix

The energy transition continues apace with coal plant closures and exit dates brought forward.

The closure of Unit 3 at Liddell Power Station took place on 1 April 2022.[43] This is the first of four units at Liddell scheduled to close by April 2023, in what is another step towards the end of Australia's coal fleet. Many coal plant operators expedited the scheduled closure date of their coal plants in the 2021-22 financial year, which is indicative of strong decarbonisation trends and unfavourable market conditions for coal plants predicted in the long-term.

In February 2022, Origin Energy announced it will bring forward the retirement date of Eraring Power Station by seven years to August 2025[44] and AGL Energy similarly brought forward the closure dates of Loy Yang A and Bayswater Power Stations by several years each.[45] To compensate for these withdrawals, the companies are planning to build a mix of new renewable generation, including large-scale batteries that make use of existing transmission infrastructure.[46]

These announcements have nonetheless raised reliability concerns, particularly as the commissioning of Snowy Hydro 2.0 was delayed beyond 2025.[47] Eraring is Australia's largest coal-fired power plant. Its closure announcement prompted the (then) Federal Minister for Energy and Emissions Reduction to submit a rule change request to the AEMC. The proposal is seeking to amend the notice period for closure arrangements from a minimum of 3.5 years to 5 years to allow more time to build replacement generation.[48] The AEMC is yet to commence stakeholder consultation on this proposed rule change.

Other key market developments include:

- AGL Energy's proposal to split into two separate retail entities was blocked in May 2022 by a group of active shareholders.[49] AGL Energy remains as one company.
- The Energy Corporation of NSW (EnergyCo) is leading the planning and delivery of the state's Renewable Energy Zones (REZs) as part of the NSW Electricity Infrastructure Roadmap.[50] Five REZs were announced[51] and the tender process has commenced to assign project developers to each one.[52]
- AEMO released its 2022 Integrated System Plan (ISP) in June 2022. The ISP is published every two years and sets out the roadmap for the National Electricity Market to achieve net zero emissions by 2050.[53] Under its most likely scenario, AEMO expects 60% of coal capacity to retire by 2030 and for electricity usage from the grid to almost double by 2050. AEMO has also identified five transmission projects that are necessary to connect greater renewable generation with demand centres. Four of these projects affect NSW. These include HumeLink, VNI West, Sydney Ring and the New England REZ Transmission Link.
- In June 2022, the new Federal Government increased Australia's emissions reductions target to 43% below 2005 levels by 2030.[54] Under its Rewiring the Nation policy, it will seek to increase the share of renewables in the NEM to 82% by 2030.[55] It also promises to invest over $20 billion in the electricity grid, along with solar banks and community batteries for household solar. It will also seek to tighten the Safeguard Mechanism, which currently sets the baseline emissions level for large industrial facilities.

2.5.2 Renewable gas offers are on the horizon

Retail offers for renewable gases such as hydrogen and biomethane are not explicitly available yet to residential and small business customers. However, gas distribution network businesses are conducting demonstration projects to test the delivery of renewable gases blended at low levels with standard natural gas. Only several hundred homes in selected areas are currently receiving these gas blends. If successful, these projects are expected to scale up in the coming years to achieve renewable gas targets of 10% by 2030 and 100% by 2040 to 2050.[56]

Examples of renewable gas blending trials include:

- Jemena's Western Sydney Green Gas Project. This involves converting solar and wind power into hydrogen gas via electrolysis, which is then stored and blended with natural gas to power 250 homes and a hydrogen vehicle refuelling station.[57]
- The Malabar Biomethane Project. Jemena has partnered with Sydney Water to generate biomethane at the Malabar Wastewater Treatment Plant in south Sydney. Biomethane is created by processing raw biogas, which is produced as part of ordinary wastewater treatment processes at the plant. This biomethane would then displace natural gas (i.e. methane) that would otherwise be produced from natural gas fields. Once construction is completed in Q1 2022-23, biomethane will be injected into the gas network directly as it meets the same specification standards as natural gas.[58]

- Australian Gas Networks' (AGN) Hydrogen Park SA (HyP SA). AGN is currently supplying over 700 homes in Mitchell Park, SA with natural gas blended with 5% hydrogen gas through its networks. While residents are notified of this change, this does not affect their gas appliances or the prices they pay to their energy retailer.[59]

The University of Adelaide is also leading an investigation into potential design and implementation options for a national Renewable Gas Target (RGT). A RGT would seek to achieve similar aims in the gas sector as the existing Renewable Energy Target has achieved in the electricity sector. The research outcomes are expected in December 2022 and will provide an evidence base for potential policy interventions.[60]

2.5.3 Gas offset programs offer gas customers a carbon neutral option

While renewable gas retail offers may still be some time away, gas offsets are available to customers through energy retailers' carbon neutral programs. This means that the greenhouse gas emissions (GHG) associated with customers' gas usage are offset (or negated) by investments in a range of climate action projects accredited under Climate Active. These projects can involve any activity that reduces, removes or captures emissions from the atmosphere, such as energy efficiency measures, revegetation or carbon capture.[61]

Examples of retailers' current offset programs include:

- EnergyAustralia's Go Neutral product, which customers can opt into at no extra cost. This program sources offset units from a range of projects across Australia and internationally. If customers elect this option, EnergyAustralia calculates the amount of carbon dioxide emitted due to their electricity and gas bill usage. They then purchase carbon offsets to negate equivalent amount of emissions in the atmosphere.[62]
- Powershop Australia's carbon neutral accreditation for both electricity and gas. Powershop, as a whole business, has been certified under the Australian Government's Climate Active Carbon Neutral Standard since 2014. This means that customers do not need to opt-in to any offset program, since all of the GHG emissions arising from their customers' energy use are offset at no extra cost.[63]

2.5.4 The AEMC has implemented reforms to reduce barriers to integrating DER, demand response initiatives, and other areas of innovation

The AEMC has implemented new rule changes and issued its final determination on a number of reforms in the wholesale electricity market in the 2021-2022 financial year. Together they promote a more flexible and competitive grid that allows for greater customer participation and bi-directional flows of energy between producers and consumers. This applies to both the wholesale and retail electricity markets.

Some of the key rule changes and determinations include:

- The implementation of five-minute settlement (5MS) periods on 1 October 2021. This 5MS rule change aligns the financial settlement process that previously operated at thirty-minute intervals, with the operational dispatch process. This aims to provide more efficient market signals for electricity generation and investment in capacity.[64]
- The Global Settlement (GS) framework commenced on 1 October 2021, with the full set of changes commencing on 1 May 2022.[65] This framework improves the way in which unaccounted for energy is distributed across all retailers, made possible by advances in metering technology.
- The Wholesale Demand Response (WDR) mechanism, which took effect on 24 October 2021. This rule change incentivises energy users to alter their energy use in a way that improves grid stability and reduces system costs.[66] Retail customers can engage directly with demand response service providers (DRSP) to effectively bid demand response capabilities at a larger scale. This innovation has prompted a number of demand response pilot programs and services offered by electricity retailers in the form of Virtual Power Plants (VPP).[67]
- The AEMC's final determination on access, pricing and incentive arrangements for distributed energy resources (DER), issued in August 2021.[68] This reform seeks to encourage greater uptake of small-scale solar and batteries by imposing obligations on distribution businesses to ensure they can integrate and support DER. It took effect on 1 July 2022 and will introduce new safeguards for customers that export energy to the grid, including minimum feed-in-tariffs. It will also require distribution companies to extend their expenditure plans to include infrastructure that will help accommodate more DER in the grid.
- The final rule determination on the integration of energy storage systems in the NEM, issued by the AEMC in December 2021.[69] This involves the creation of a new participant category - the Integrated Resource Provider (IRP), encompassing all participants engaged in bi-direction energy flows. This will simplify the registration process for all participants, particularly as new storage and hybrid facilities enter the NEM. It also offers a technology-neutral position to remove barriers to entry for innovative business models that allow for two-way energy flows and greater customer participation. The first two changes will take effect on 31 March 2023, while the IRP category will only be available from June 2024.[70]

2.5.5 Gaps are emerging in consumer protection frameworks for new products and services

Another focus area for future market monitoring reports concerns reporting and disclosure obligations, consumer protection settings, and dispute resolution mechanisms that apply to new products and services in the retail market. EWON highlighted several emerging gaps where consumer protection frameworks may not sufficiently cover new retail offerings.[71] These are set out below.

Plans that bundle energy and demand management services (including technology), with non-energy products like telecommunications.

- These contracts can be highly complex and involve multiple third-party providers who are not subject to the existing AER consumer protection framework. It also makes these products inherently more difficult to understand. This makes it harder to ensure customers are equipped to make informed decisions, and harder to ensure customers get the most out of the product they've chosen. This can lead to higher costs for all involved when disputes arise.
- Bundled products that involve equipment (e.g. solar panels and batteries) tend to lock customers in for long periods (7-10 years) so that the higher upfront costs are recovered by the retailer over time. In concert with the inclusion of non-energy products, this can make switching providers impractical. This means greater potential risk for customers if they are not given sufficient information about the offer beforehand, and over the longer term, may have implications for the effectiveness of competition in the market because customers are less able to switch. Better information is therefore needed to help consumers compare alternative products, both among innovative options, and between innovative and traditional options. Greater clarification of dispute resolution mechanisms that seek to resolve customer complaints associated with these bundled products is also needed.

DER and demand management services, including EVs and VPPs.

- EWON received a small but growing number of complaints concerning VPPs in the last financial year. Several retailers have commented that products like these are very challenging to explain to customers, and industry participants are aware of the need for greater education and communication about them.[72]
- Rules around customer information and consent for retailers' control of smart devices should be reviewed, including to clarify what happens after demand management contracts expire.

The Consumer Data Right (Energy Sector) Designation 2020 comes into effect from November 2022. This may improve customers' visibility of energy deals across retailers, however the complexities of different new retail offers and bundled packages may limit its usefulness for comparison purposes. It also will not regulate data services and home energy management services on offer, or ensure better information is available to help customers choose between complex offers (though improved access to data could contribute to this outcome).

New retail products and services that integrate new technologies such as solar, home batteries, EVs, smart device control, and bundling energy and non-energy products are poised to expand beyond a relatively small pool of highly engaged energy customers. The expansion is likely to be driven by retailers seeking to manage high wholesale costs and supply uncertainty, and customers seeking to avoid high prices.

It is critical that our regulatory frameworks adapt to account for the new issues in this market ahead of widespread adoption of these new products. Adequate disclosure and reporting obligations are also needed to provide regulators with the data required for good visibility over market, retailer, and customer outcomes from these new offer types.

Given this, our findings in this report underscore the importance of the AER's ongoing Retailer authorisation and exemption review. This review is currently considering the issues noted above. It will analyse the key emerging risks to consumers, the likelihood and materiality of these risks, and a range of reform options that can help 'future-proof' our consumer protection frameworks as energy technologies, systems and behaviours rapidly evolve. The review is also considering how our current information provision frameworks must adapt in order to ensure an informed and empowered customer base that can make the right choice for their circumstances.

The AER is currently scheduled to deliver final recommendations from this review by April 2023. However, following final recommendations (and subject to the nature of these recommendations), any changes to the NERL will likely require a substantial period of time to be implemented. This is because they are likely to require both Commonwealth and state government consideration and agreement.

Therefore, we recommend that the NSW Government should take on the role of providing high-quality, up-to-date, simple and unbiased information to the public about retail energy offers involving:

- new technologies, such as solar panels, batteries, electric vehicles, smart home devices,
- service bundling, including where energy services, technology and equipment are bundled with non-energy services,
- demand response schemes.

The information made available should reflect the current state of the market and should aim to educate and inform customers about how these new offers work and how customers can equip themselves to choose between them in their own best interest. We consider that the complexity of these new retail offers creates a specific need for clear public information from a trusted source free of commercial interest. This information should build on existing work in this area by the NSW Government, which already provides information on energy services and technologies.[73] It could also build on information resources recently released by Energy Consumers Australia (ECA). ECA have recently developed a public information portal to help explain renewable energy technologies to the public and support further engagement with these technologies. This work could be extended to include a specific focus on navigating retail offers.

This role could potentially be undertaken by Service NSW, where there is already a convenient and trusted public facing digital architecture in place in the Service NSW app and an existing in-person assistance service that can help customers with their bills. Alternatively, the role could potentially be undertaken by the NSW Office of Energy and Climate Change (OECC), which already specialises in retail energy issues. The NSW Government already provides the public with a range of information on energy offers on their energy saver website – this could be extended to specifically cover innovative retail offers, with reference to the helpful information already provided by ECA.

Given the current environment of rising energy prices, this additional information to be provided by the NSW Government is also an opportunity to further assist customers to save on their energy usage, their energy bills, and cost of living. We recommend that the NSW Government consider how best to promote further customer awareness and engagement with the range of support initiatives already available to help customers, prioritising customers experiencing vulnerability. This includes further building public knowledge of existing rebate initiatives and access to expert help.

2.5.6 Innovation around electric vehicles is progressing, but uptake may be hindered by economic and supply chain issues

The electrification of the transport sector is creating new opportunities for retail customers. Market reforms that increasingly allow for a two-sided energy market are encouraging electricity retailers to offer innovative services and tariffs to owners of electric vehicles (EVs).

Emerging retail service and pricing initiatives are centred around the charging and discharging capabilities of EV batteries. These include Vehicle-to-Home (V2H) and Vehicle-to-Grid (V2G) services that enable EV owners to supply electricity to their home or the grid using the energy stored in their EV battery. Most EVs and chargers currently do not have V2H/V2G capabilities, meaning investment and innovation is needed to harness the potential storage capacity of an electrified vehicle fleet.

Many of these initiatives are still in their trial phase. Examples include:

- The Realising Electric Vehicle-to-Grid Services (REVS) project, led by ActewAGL and supported by ARENA. This involves paying EV owners to inject power from their EV batteries into the grid during times of grid instability to prevent blackouts.[74].
- Discover Energy's Smart vehicle2grid (V2G) program, which enables customers to use their EV car battery for their home as emergency backup, and to provide energy to the grid during periods of high demand. Customers access these services as an EV VPP member and are rewarded with a feed in tariff of 25c/kWh of energy supplied to the grid.[75]
- Origin Energy's EV Smart Charging Trial, which captured data on EV charging patterns to inform tariff design and electricity system impacts. The trial observed that incentives influenced vehicle charging behaviour, where credits to participants' energy bills rewarded participants who charged their EV during specific periods. This helped divert energy use from peak periods, and in some cases demonstrated participant willingness to relinquish control of their chargers for incentives.[76]

- Retailers are also offering tariffs that encourage customers to charge their EVs during off-peak hours to avoid potential congestion impacts of charging during peak periods. Together these initiatives seek to reduce peak demand, stabilise the grid by providing ancillary services, and capture arbitrage opportunities between high- and low-price periods.[77]

Despite these developments, feedback from retailers has indicated that there may be material economic barriers to greater uptake of EVs for customers. Several retailers highlighted that we have not seen the same drop in price for battery technology as we have seen for solar PV, and this is likely to persist as an impediment to broader and faster uptake of EVs and household batteries. This is in spite of strong customer demand, where customers have been waiting years for their purchased EV to arrive due to supply chain constraints around the world, but especially linked to materials required for batteries.

2.5.7 Retailers' innovation around EVs aligns with broader policy support

Moves by retailers to encourage EV uptake and integration with the grid are receiving policy support at all levels. Policy initiatives that seek to strengthen the prospects for low-emissions vehicles and supporting infrastructure include:

- The Federal Government's Future Fuels and Vehicles Strategy, instituted in November 2021 This will likely be enhanced under the new Federal Government, which is seeking to provide a range of discounts and exemptions from import tariffs for EVs.[78]
- The Energy Security Board's DER implementation plan, which was endorsed by National Cabinet in October 2021.[79] 'Horizon One' of the plan focuses on addressing barriers to customer reward for DER and flexible energy use.
- The NSW Government's Electric Vehicle Strategy, implemented on 1 September 2021. The NSW Government is providing rebates and removing stamp duty for some EV purchases and is supporting this with grants for fast charging stations across the state.[80]
- The launch of the Energy Innovation Toolkit in August 2022, which is an online regulatory tool provided jointly by the AER, AEMO, AEMC. ARENA and the ESC of Victoria. These agencies recognise that the complexity of market rules and overlapping frameworks serve as a barrier to innovation. Proponents of new business models can use this to navigate the relevant regulatory frameworks and seek regulatory relief for innovative trials that may not have otherwise been possible.[81]

2.5.8 The NSW Peak Demand Reduction Scheme was established in the 2021-22 year and will be administered by IPART

The NSW Government established its Peak Demand Reduction Scheme (PDRS) in September 2021. The scheme is designed to reduce peak electricity demand and associated system costs in NSW.[82] The PDRS builds on the existing NSW Energy Savings Scheme (ESS) activities by allowing households and businesses to earn certificates for a dependable reduction of electricity consumption during peak times. This can be achieved through an accredited service provider using a range of different technologies, including air conditioners, pool pumps and refrigerators. While some participants have been able to create certificates since 1 April 2022, scheme liability is set to begin on 1 November 2022, meaning shortfall penalties will apply to participants who fail to meet their certificate targets.[83]

2.5.9 Smart metering challenges identified in previous reports appear to persist

Last year, we provided detail on a range of challenges with smart meter uptake that have led to a slower overall adoption of smart meters than expected. Around 25% of NSW customers have smart meters as of July 2021[84], and their full potential benefits remain largely unrealised for energy users and the grid.

Customers require smart meters[e] to access many of the innovative offers provided by retailers, as they need up-to-date information about their electricity usage.[f] These are generally included as part of the costs of the retailers' plans.

A traditional meter, that is manually read every quarter would not be able to meet such needs. 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.

While visibility on smart meter uptake in NSW is imperfect, stakeholders indicate that adoption of smart meters remains limited. Retailers point to high installation costs and poor coordination between electricity retailers and metering providers as an ongoing barrier to uptake.[85] The NSW Government has estimated costs of between $100-$300 for smart meters and another $100-$300 per annum per customer for associated services.[86] It also found a lack of publicly available data that allows customers to compare smart meter costs across different providers. This is further complicated by the different approaches that retailers use to recover smart meters costs from end customers.

[e] 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.

[f] For example, solar panels must be paired with a smart meter that can support two-way electricity flows. 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.

The AEMC is conducting a review into the regulatory framework for metering services.[87] This will be informed by the NSW Government's findings from its consultation paper which focussed on innovation and digitalisation of the energy sector.

Draft Recommendation

1. The NSW Government should provide energy customers with clear, independent information about innovative energy retail offers that involve:
   - new technologies, such as solar panels, batteries, electric vehicles, smart home devices
   - service bundling, including where energy services, technology and equipment are bundled with non-energy services
   - demand response schemes.

   This information should aim to assist customers to understand new innovative energy services and products, enable customers to make the best choice for their circumstances, and promote sustainable use. This can build on the work already undertaken by the NSW Government including providing information on energy services and technologies, and Service NSW advice for customers about accessing rebates and support.

2. The NSW Government should consider options to promote awareness of current government initiatives and support programs for customers to reduce their energy costs and transition to more sustainable energy use, prioritising those customers experiencing vulnerability.

Chapter 3

How retailers are competing

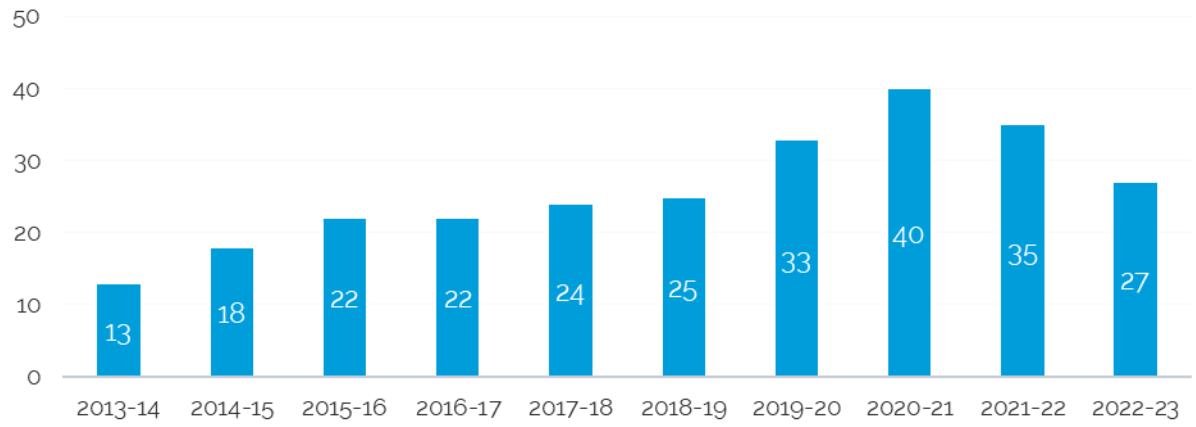
03

This chapter discusses the different ways that retailers competed in the electricity market in 2021-22. We have provided additional information about competition in retail gas in our Information Paper. Typically, retailers compete on price, the diversity of service offerings (including by developing new kinds of offers), and other non-price factors (for example, customer service).

3.1 For the first time since deregulation, there are fewer retailers in the market than the previous year

Prior to 2021-22, every year since 2013-14 has seen an increase in the number of active retailers in the market. In 2021-22, the number of retailers in the market[a] fell for the first time, from 40 to 35, and then to 27 in August 2022 (see Figure 3.1).

Figure 3.1 Number of retailers in the NSW electricity market



Source: IPART EME analysis.

In 2021-22, the drop in retailers was driven by one RoLR event in the NEM (Pooled Energy) and 5 instances of retailers providing no offers to the public on Energy Made Easy but keeping their existing customer base. One retailer entered the market during this period (Circular Energy). At least 3 other retailers encouraged their customers to switch retailers before 1 July and 11 stopped taking on new customers at some point in the year.[b]

[b] The number of retailers in the market is defined as the number of retailers in a specified month that are providing offers. In the EME documentation, a published offer is defined as a "generally available plan that is active/available and visible on the website". There are other retailers supplying customers not offering contracts to new customers in June 2022. A full list of retailers in the market is provided at Appendix A.

2022-23 has already seen another 4 RoLR events. The further decrease from 35 retailers to 27 between June and August was driven by the exits of Enova Energy (July), Power Club (August), Mojo East Power (August) and Social Energy (August). In addition, 6 retailers who were proving offers in June were no longer providing offers in August. There were 2 instances where retailers were not providing offers in June but returned to providing offers in August (Nectr and Electricity in a Box). See Figure 2.7 for a timeline of RoLR events. A full list of retailers, the areas and customer types they service, and the types of offers available are provided in Appendix A.

As Chapter 2 notes, these exits appear to be driven by high wholesale electricity prices. The historically high and concentrated number of RoLR events suggest that operating a retail business in NSW at the moment is challenging.[c] It also suggests the current environment may mean businesses face lower than normal competitive pressure from the threat of new entry into the market, given that entry into the market appears less likely given high wholesale energy costs. However, this does not mean businesses do not face any pressure to become more efficient or improve their service offerings. The current wholesale environment is likely to motivate retailers to find efficiencies in the business, or develop or expand new retail offerings that help them avoid high wholesale costs (for example, options that reward demand shifting from peak to off-peak). These benefits can be shared with customers as an incentive. In a high-cost environment, the ability to adapt through innovation is likely to give businesses a competitive advantage.

The number of retailers in the market today is still higher than at any time from 2013-14 to 2019-20. Given the severity of recent wholesale price shocks (which are external to the retail market), this could be seen as a sign of resilience. Not all markets have demonstrated such resilience – for example, recent wholesale price shocks in the United Kingdom have seen an almost 50% reduction in the number of electricity or dual fuel retailers over the year to December 2021[88], affecting millions of customers and driving up costs for consumers.[89] However, this conclusion should be taken as preliminary only, and we will closely watch it for next year's market monitoring report. If 2022-23 continues to see retailers leaving the market, this may be a sign that the current wholesale cost environment is simply untenable for smaller retailers. Over the medium term this could have material impacts on competition in the market. It will be important to monitor market entry and exit closely over the coming years, especially given the risk that the current wholesale energy market deters potential new market entrants in the near term.

Ultimately, it is not in the short or long-term interests of customers if large numbers of retailers with material collective market share exit over a short timeframe. This is especially the case when the impact of additional customers on RoLRs could be substantial given current wholesale prices – this would then force remaining retailers to further raise prices.

[c] As we explore in Chapter 7, this may in part be due to the operation of the DMO, which acts as a 'soft cap' on prices but does not provide retailers with a sufficient allowance to account for the high wholesale prices that have occurred recently.

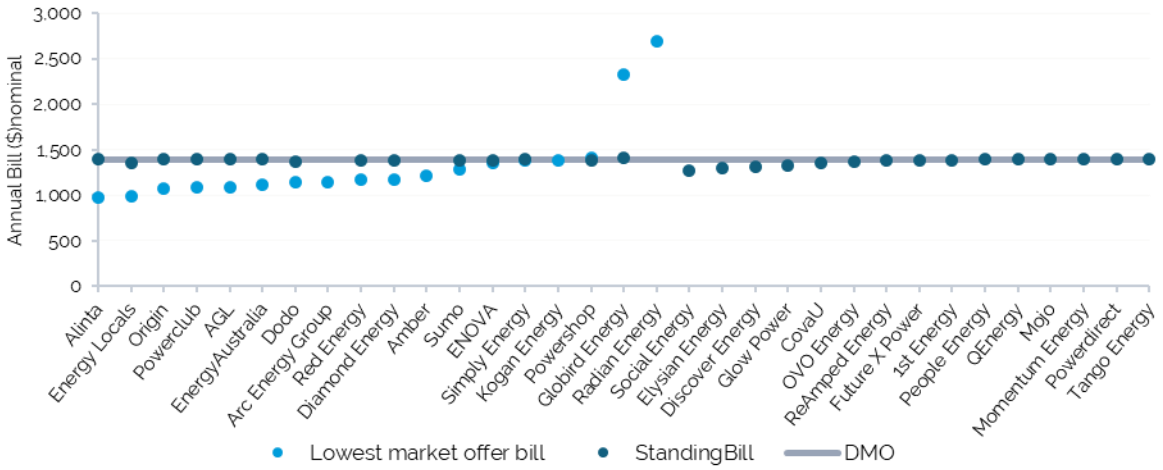
3.2 Some retailers still compete on price, but there is substantially less price variation in the market

High wholesale energy costs have put significant pressure on retailers' ability to offer discounts off the standing offer (which is capped by the DMO) to customers who shop around. A key retail market outcome of high wholesale prices (explored further in Chapter 6) has been that standing and market offers are now quite similar, more similar than at any other time since deregulation (see Figure 3.2). Importantly, the DMO to apply from 1 July 2022 was set well before the recent spike in wholesale electricity prices and so, unlike market offers, standing offers lag current market conditions. This is one driver of price convergence between market and standing offers.

Some retailers are still competing to offer customers lower prices. However, the spread of offer prices has reduced dramatically in 2021-22 (as indicated for the Ausgrid network in Figure 3.2). The lowest prices in the market in June 2022 were only around 11% lower than the highest prices in Ausgrid and Endeavour networks, and 10% in the Essential network.[d] In August 2022, those figures dropped to just 4% for Ausgrid, and 5% for the Endeavour and Essential networks. In contrast, the lowest offers in the market were around 35%[e 90]. lower than the highest offers in 2020-21. As Chapter 7 discusses further, for the first time there are some examples of retailers in the market with market offers that are higher than the standing offer.

Chapter 6 has more information about pricing outcomes for customers, cost drivers and trends over time. Chapter 7 discusses the impacts of the DMO in detail.

Figure 3.2. Anytime tariff offers for residential customers in the Ausgrid network area in June 2022



a. Annual electricity bills based on 3,900 kWh pa, nominal, GST-inclusive
b. Standing offers data for some retailers were not available.
Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

[d] Calculated based on median lowest and median highest residential single rate market offers.
[e] Based on AER's DMO consumption levels for each network.

The bill amounts shown in Figure 3.2 are based on retailers' 'anytime offers'. These are single rate (as opposed to time of use or demand tariffs) offers that 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.

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, Central Coast and the Hunter), Endeavour Energy (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 pattern of reduced variation and convergence of market and standing offers in the Essential Energy and Endeavour Energy network areas.

3.3 There are fewer offers available in the market

In previous years we have reported on a growing number and diversity of offers in retail markets that has accompanied an increasing number of active retailers. This year has seen a reversal of those trends.

Even after accounting for retailers suspended from the market, there are fewer offers available at the time of analysis, likely linked to the high costs of new customers to the retailer (because their load is not already hedged) and the inability in current market conditions to offer as wide a diversity of products.

There was a significant drop in the number of offers in the market between 2020-21 and 2021-22. At the time of this analysis, in May 2021, there were 12,757 offers in the market which reduced to 6,206 offers in June 2022 (representing a 51% reduction) and 5740 offers in August 2022 (an additional 8% reduction from June).[f]

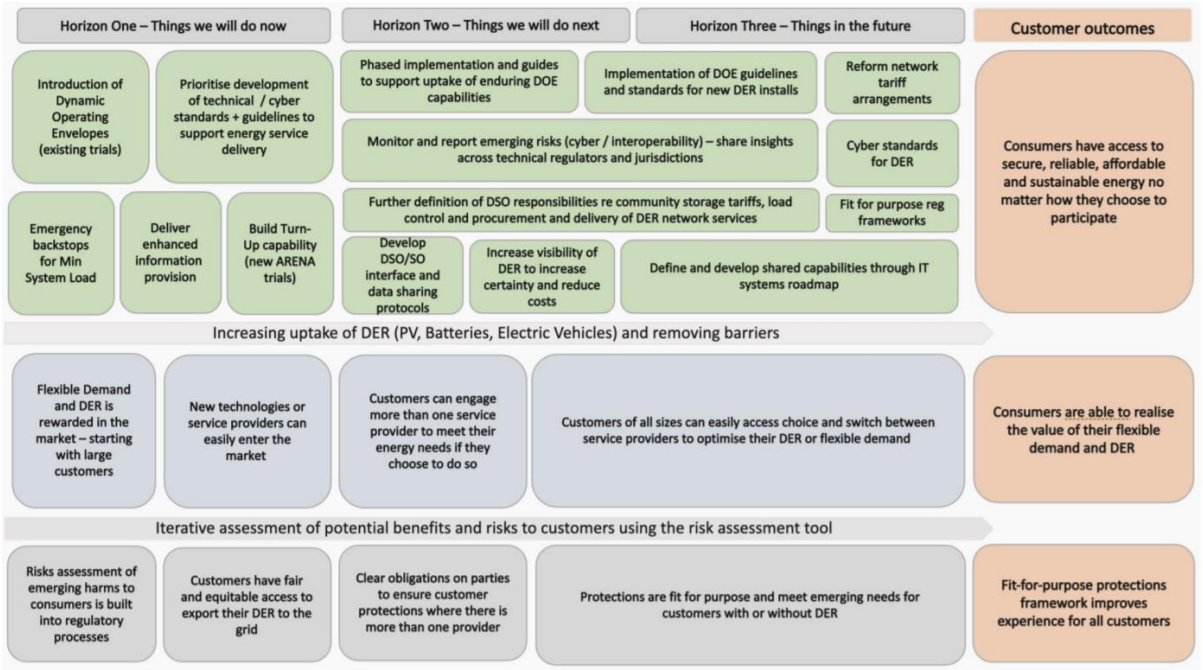
Many smaller retailers, particularly those known to have struggled with rising wholesale costs such as Discover Energy and Future X Power, have not submitted any retail offers to Energy Made Easy in August 2022. Overall, as discussed above, this suggests a lower willingness to take on new customers given their spot market exposure. There may also be less imperative for larger retailers to compete given the 'flight to safety' underway and the gain in customers through the RoLR process. Offers for fixed rate plans were also disappearing for the same reasons.[91]

[f] Offer numbers are based on the number of unique plan IDs. Offer numbers are volatile and are subject to change within the month. We note that the high number of offers is driven by small variations in time of use offers. Therefore, while the percentage change on last year does indicate movement in the market, the number of offers itself may not be a strong indicator of competition.

3.4 The current context of high energy costs may pose both challenges and a strong incentive for retailer innovation in the market

Last year we reported on the direction of policy reforms and retail market offer innovations as the energy market transitions to a renewable fuel mix. We highlighted that the transition will rely on solving several key challenges, especially integration of DER and flexible demand. The transition has been comprehensively mapped by the Energy Security Board which has recommended reforms related to the integration of DER and flexible demand. These are shown in the ESB's recommended DER Implementation Plan (Figure 3.3).

Figure 3.3. DER Implementation Plan



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

Retailers are still offering a range of plans that aim to leverage generation behind the meter and demand flexibility in ways that benefit customers, retailers and networks.

Examples of notable innovative retail plans include:

- Simply Energy's VPP Energy Plan. This plan allows owners of solar and home battery storage systems to earn up to $1,500 in bill credit over 5 years and a one-off sign-up credit of $300, for energy they provide to the grid.[92]
- Simply Energy's Staff Solar Sharing Scheme, which won the Canstar Blue Innovation Award for 2022. This scheme focuses on the sustainability benefits of connecting staff at its partner manufacturing firm Hunter Douglas in Sydney's Rydalmere to excess electricity generated outside operational hours by the rooftop solar system on its manufacturing facility. This was made possible by technology developer Enosi's power tracing software platform.[93]

- AGL Energy's innovation hub, AGL Next, has partnered with Honey Insurance to bundle home and contents insurance with its energy services. This offer includes complimentary smart home technology products valued at $250 that are designed to alert customers of fire, water damage and theft. Customers are rewarded with up to 8% off their premium for this reduced risk.[94]
- Origin Energy's partnership with Energy Queensland that is trialling installations of pole-mounted batteries.[95] These will test how localised energy storage solutions can benefit customers. These trials are similar to those launched by Victorian distributor United Energy as part of its 'Electric Avenue' project. Backed by ARENA, this project involves the construction of 40 batteries mounted to electricity poles that will operate as a VPP in Melbourne's northern suburbs.[96] Ausgrid has also installed three community batteries across its network. [97]

The NSW Government is actively examining ways to promote innovation in the energy sector. In December 2021 it released its public consultation paper on 'Promoting innovation for NSW energy customers'[98], which focused on three key areas:

1. Digital energy technologies
2. The future of DER
3. Energy customers' digital journey

The application of the Consumer Data Right for Energy is set to begin in November 2022. This is expected to promote greater competition between retailers, as consumers will have more information available to compare energy plans.

However, the current context of high wholesale energy costs raises concerns about how retailers are likely to pursue innovative offers in the future in a market under stress. For instance, innovative business models centred around Virtual Power Plants (VPPs) are operating on slim margins as they have not yet achieved bankability or scale.[99] Nonetheless, their commercial viability is expected to improve significantly and transform existing 'gentailers' into future 'VPP-tailers'. Key drivers of these expected trends include early coal plant exits, increases in behind-the-meter capacity and consumers seeking to avoid high energy costs. Retailers could arguably capitalise on this heightened customer engagement with the market through demand response schemes and associated offers.[100]

The current high wholesale market conditions is also likely to act as a sharp motivator for both retailers and customers to develop workable solutions to integrate large- and small-scale renewables and demand response schemes reliably into the grid to avoid worsening price shocks in future. This is also likely to be a time of heightened customer engagement with the market and retailers as they seek to avoid higher energy prices, and as such presents an opportunity to broaden the uptake of innovative offers. This is another reason to ensure that our consumer protection frameworks are fit for purpose now, as innovative but potentially more complex retail offer development and customer uptake grows.

There are also different pathways innovation could take based on market conditions and perceived customer preferences for some kinds of innovation over others. For example, flexible demand management, including remote coordination of smart home devices and incentives to shift demand off peak, represents one clear direction of innovative offers, but does require substantial customer education, engagement, and behaviour change. However, recent research from the ESC which looked at consumer behaviour in response to actual offers in the market[101] suggests that customers may not be interested in adjusting consumption behaviours for what are often marginal gains to them and involve very complex or sophisticated rules and incentives. If this is the case, customers may be more interested in simply ensuring the source of their energy is renewable.

We will continue to monitor retail offer innovation in the market in future reports to understand how innovation responds to recent high wholesale prices and the impacts we have described for retailers and customers.

Draft finding

1. Retailers are still competing for customers, but key indicators of competition are now in decline:
   - There are now 27 retailers in the market (35 at the end of 2021-22), which represents the first year-on-year reduction in the number of retailers since deregulation. However, this is still more than twice the number of retailers in 2013-14 when we first started monitoring the market.
   - Retailers compete for customers on price, but substantially less so than in previous years as high wholesale prices dramatically reduce the discount retailers are able to provide relative to the standing offer. The lowest offers in the market in June 2022 are only around 11% lower than the highest market offers.
   - Retailers are still offering service innovation, aligned with the imperative to avoid high wholesale costs and leverage value from distributed energy resources and demand flexibility.

Chapter 4

How customers are responding

04

This chapter discusses our findings on consumer behaviour in the retail electricity market in 2021-22, and consumer perceptions of 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. We have provided details about retail gas markets in our Gas Information Paper[102].

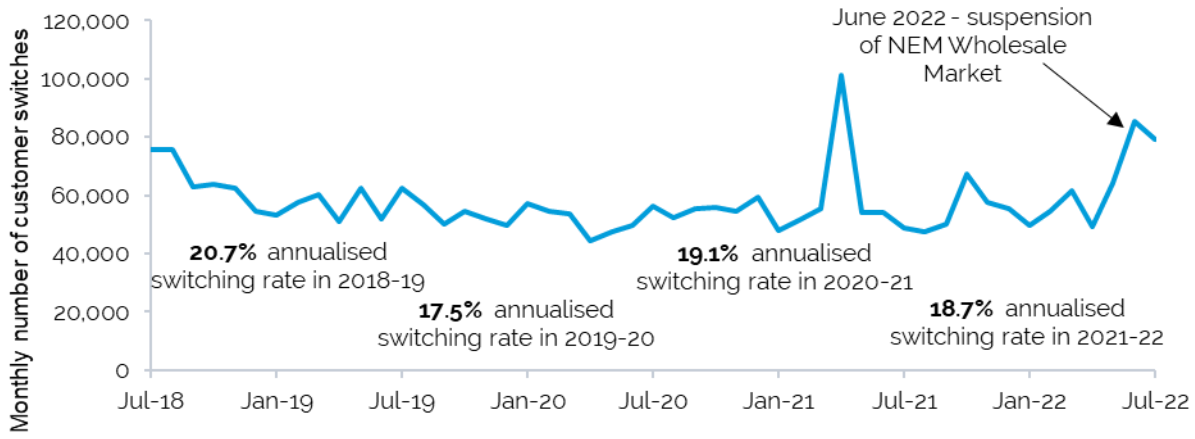
4.1 Increasing levels of customer engagement

We found that over 2021-22 customers continued to engage in the market. There were similar rates of switching for residential electricity consumers compared to recent years, and the proportion of residential customers on market offers grew.

4.1.1 Switching rates remained stable

During 2021-22, 18.7% of customers changed their retailer. This compares to 19.1% in 2020-21 and 17.5% in 2019-20 (Figure 4.1).

Figure 4.1 Number of electricity consumers switching each month



Note: The 2021-22 switching rate was estimated as the total number of customer switches in 2021-22 divided the number of customers as at Q3 2021-22.
Source: Number of customer switches: AEMO, NEM monthly retail transfer statistics, July 2018 to July 2022. Customer numbers: residential and small business customer number estimates from AER, Retail Performance Data Q3 2021-22, Schedule 2. Accessed August 2022.

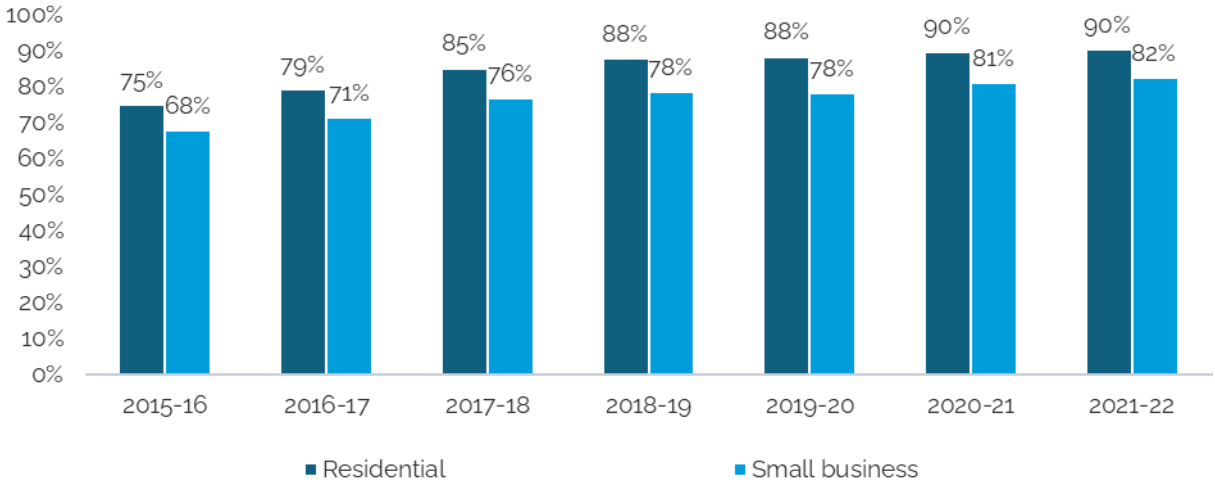
There was a significant spike in July 2022 which can partly be attributed to the RoLR events that occurred in this month and other consequences of the wholesale price spike (such as retailers instructing customers to leave[a], or customers fear their retailer might fail or raise prices, both of which were highly publicised. Further, there is still some spread in retailers lowest market offers in July and August, which, because price rises occurred on 1 July 2022, may have tempted a greater number of people to change offers in order to get a better deal. That is, the potential financial gains (or rather, avoided costs) from switching may become more salient to customers when prices are rising. This spread can be seen (for example in the Ausgrid network) in Appendix C.3, where even though the median market offer increases to a level similar to the median standing offer, there is still a spread of 'lowest' offers present across retailers. The increased media attention on the energy market may also have triggered consumers to be more engaged in the market.

In their household sentiment survey for June 2022, ECA found that the most common reasons for switching electricity companies was finding a better plan on an independent price comparison website (28%) and not being satisfied with the value for money of their old company (30%).[103]

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 90% in 2021-22, no change compared to the previous year (Figure 4.2). The proportion of small business customers on market offers increased by 1 percentage point to 82% in 2021-22.

Figure 4.2 Proportion of small customers on market offers



Note: Year 2021-22 is reflective of Q3 2021-22 values
Source: AER, Schedule 2 - Q3 2021-22 Retail Energy Performance Data, June 2022.

[a] For example, ReAmped customers are currently better off with another provider (reampedenergy.com.au).

The level of savings obtained from switching to a market offer depends highly on the level of consumption and small business customers have a wide variation in energy consumption.[104] The ACCC found that by switching from the median standing offer to the 25th percentile market offer, small businesses in NSW could save 23% on their energy bills, the highest in the NEM.[105] As discussed above, the historical difference between retailers lowest market offer and their standing offer has remained relatively stable at around 10% or above up until May 2022 (12-24% in May 2022). The difference has narrowed significantly, and if this continues, it will likely affect the switching rate patterns going forward. This will be another important issue to watch closely in future market monitoring reports.

As discussed in the 2020-21 report, not all customers who are on market offers are paying lower prices.[106] 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, even when there may be better alternatives in the market or when an initial discount period has expired. This issue may now have larger bill impacts on customers because some market offers might be higher than the standing offer, and because the difference between the market and standing offer is now small.

Draft finding

2. Customers continue to engage in the market in 2021-22:
   - Switching rates decreased slightly from 19% to 18.7%, but are still consistent with switching rates over previous years.
   - The proportion of residential customers on market offers is similar to previous years - at 90%, and 82% for business customers (up from 81%).

4.2 Consumer sentiment and confidence has decreased slightly on some measures

Consistent with trends over recent years, the number of electricity related complaints to the Energy & Water Ombudsman NSW (EWON) were lower compared to previous years. However, ECA found decreasing indicators of consumer sentiment on some measures in its regular community survey.

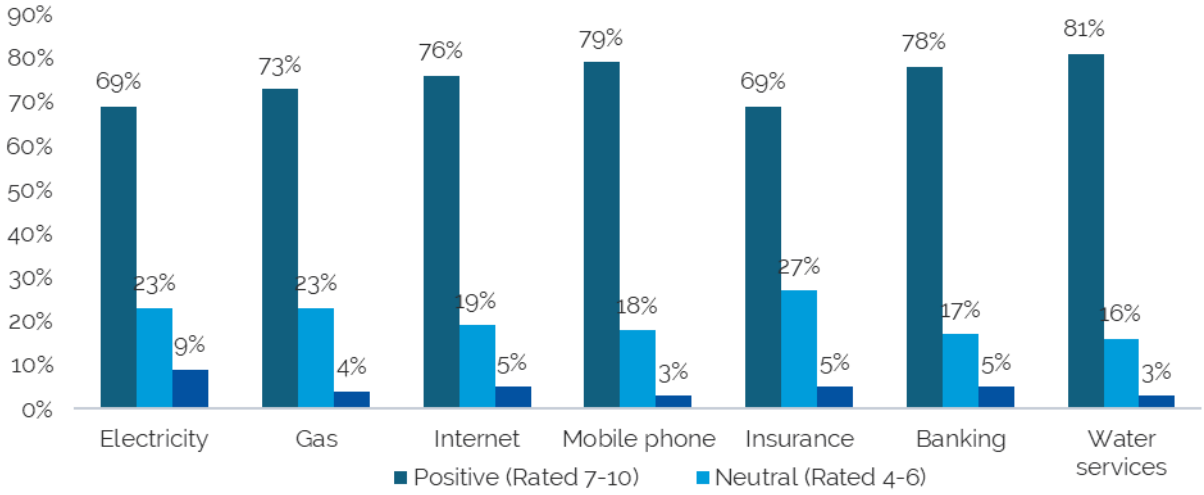
4.2.1 Energy Consumers Australia survey

The ECA conducts sentiment surveys assessing the attitudes and activity of residential and small business energy consumers across Australia. The June 2022 survey of NSW electricity customers[107] found that consumer sentiment decreased on many measures since last year:

- 79% are satisfied with the provision of electricity services (down 2% from the previous year).
- 69% are satisfied with the level of competition (e.g. range of choices or number of potential suppliers) in the electricity market (same as previous year).
- 73% are satisfied that their billing and usage information is clear and simple to understand (no change previous year).

- 47% confident that the overall market (energy industry and energy regulators) is working in their long-term interest (down 2% from previous year).
- 68% are satisfied with the value for money of their electricity service (down 6% from previous year). However, customers considered that most other services such as mobile phone, water and banking service provided better value (Figure 4.3).

Figure 4.3 NSW consumer satisfaction with utilities and services – value for money as at June 2022

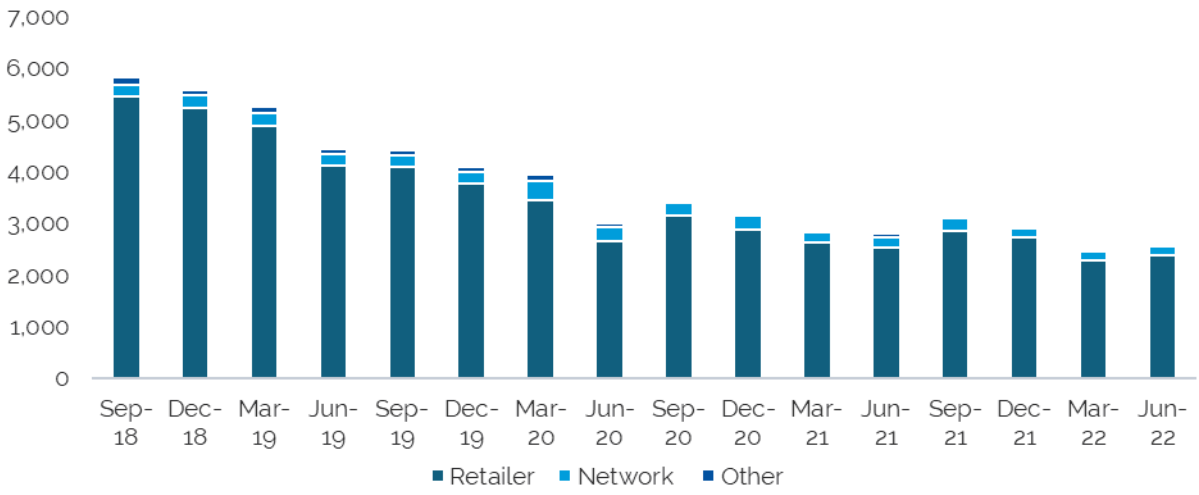


Source: Energy Consumers Australia, Sentiment Survey – June 2022, NSW, accessed August 2022; Sentiment Survey June 2022.

4.2.2 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).

Figure 4.4 Quarterly number of electricity complaints reported by EWON



Source: EWON, EWON Insights, September 2018 to June 2022, accessed August 2022.

In total, there were 11,237 complaints in 2021-22 compared with 12,315 and 15,445 in the two previous years respectively. Most complaints relate to retailers and are about billing and customer service.

The ECA June 2022 survey found that, for the first time in five years, overall household satisfaction with electricity declined across the country, from 83% at the time of the June 2021 survey to 80% at the time of the June 2022 survey. Similarly, satisfaction in the cost of electricity fell from 56% to 53% from June 2021 to June 2022, however this was mainly driven by South Australia, Western Australia and Victoria. The survey also revealed that households were less satisfied with the time to restore electricity in an outage, down from 63% to 56% from June 2021 to June 2022. However, the ECA note that this survey was done following the 2022 floods which affected large areas of eastern Australia, and likely contributed to the 36% of Australian households experiencing an electricity outage in the past 6 months.

The ECA say that household confidence that the overall market is working in the long-term interests of consumers is down from 46% to 44% from June 2021 to June 2022, however this was mostly driven by decreases in Western Australia, South East Queensland, South Australia and Tasmania.[108]

Draft findings

3. Reported satisfaction with electricity retail services over 2021-22 decreased slightly.

4. The number of electricity-related complaints to the EWON was lower compared to previous years.

Chapter 5

How the market structure is changing

05

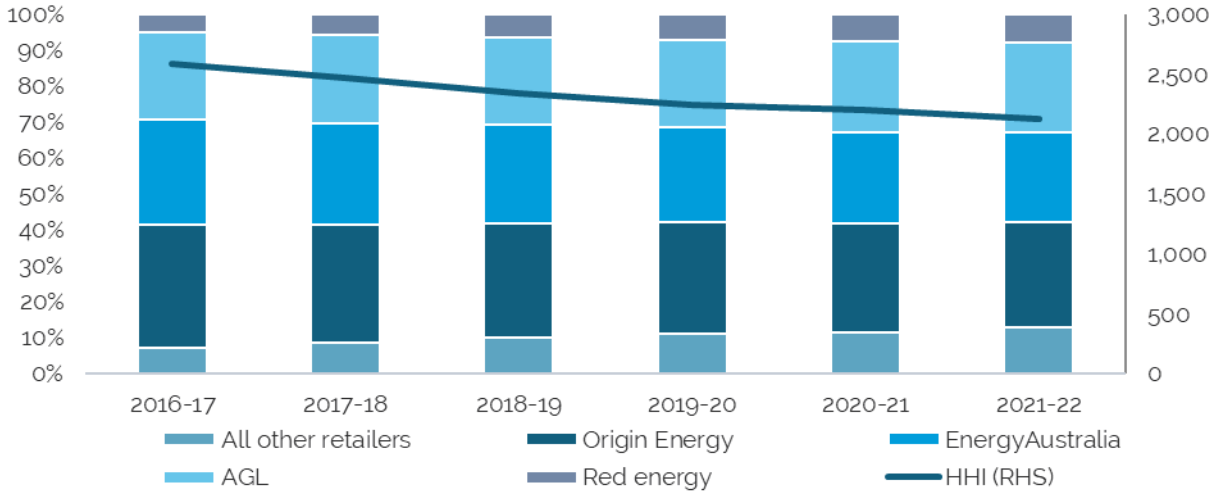
Chapter 3 showed that there has, for the first time, been a decrease in the number of retailers in the market. This is largely linked to the difficulties operating with very high wholesale costs of energy. The two previous years saw a total of 16 new operators enter the market, following an unbroken run of increasing retailer numbers since deregulation in 2013-14. This chapter discusses changes in market share, that is, how businesses have been gaining and losing customers. It also considers whether there are barriers to entry and expansion. We have provided further analysis of retail gas markets in our Gas Information Paper.

It is important to note that at the time of this report, we have access to the Q3 2021-22 AER retail market performance data which captures up to March 2022. Therefore, much of the market volatility that started around June 2022 will not be captured in our assessment of competition. Our analysis below will need to be revisited once the data for Q4 2021-22 becomes available. Our analysis of retail offers and retailer numbers form Energy Made Easy elsewhere in this report does include data up to August 2022.

5.1 Wholesale market volatility in 2021-22 affected retail market competition

Figure 5.1 shows that the market concentration has fallen over time but the retail market remains relatively concentrated. The Herfindahl-Hirschman Index (HHI), which is a measure of market concentration (see Box 5.1), fell from its 2020-21 value of at 2,293 to 2,189 based on March 2022 data for the retail electricity market.

Figure 5.1 Market concentration for small electricity customers in NSW



Source: AER, Schedule 2 - Q3 2021-22 Retail Energy Performance Data, June 2022.

The retail electricity market continues to be dominated by the Big 3 – Origin Energy, EnergyAustralia, and AGL Energy. These same retailers dominate the gas market. The combined market share of the Big 3 has slowly fallen over time, but they still supply 79% of customers in NSW in roughly equal shares (down from 88% in 2016-17)[109]. Origin and EnergyAustralia have lost market share (5 percentage points and 4 percentage points respectively since 2016-17). Overall, the combined market share of the Big 3 decreased by 2 percentage points in 2021-22. The next biggest retailer is Red Energy which increased its market share by around 0.5 percentage points to 8% in 2021-22.

Though not evident from AER data which only captures up to March 2022, research from the ESC suggests more recent market volatility and high wholesale energy costs may be driving a 'flight to safety' among customers. This refers to customers switching to a large retailer for the first time or back to large retailers. This could be for a number of reasons including concern that smaller retailers may fail in a market under stress, advice from some smaller retailers to switch to an alternative provider, or concern from customers about actual or potential price rises at smaller retailers. This may also be occurring in NSW, and we will monitor this closely next year when more recent data will be available. In conjunction with the notable cluster of retailer exits in August 2022, we suggest market concentration may emerge as a key issue to watch for next year's report.

Box 5.1 The Herfindahl-Hirschman Index

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:

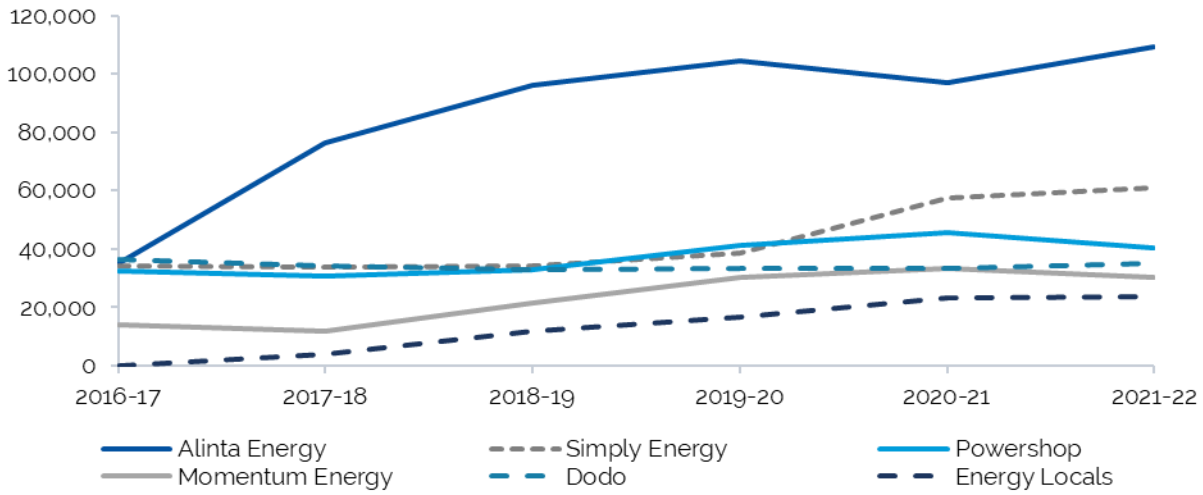
- The ACCC considers a post-merger industry with a HHI of 2,000 or less is less likely to raise competition concerns (used when considering the impact of mergers).
- An ACCC review of the mobile telecommunications market found a HHI of around:
  - 3,100 for mobile services
  - 3,500 for fixed broadband 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.

After the Big 3 and Red Energy, the remaining 13% of the market is shared between the other retailers.[110] About 8% of this is held by 6 retailers. These retailers had more than 20,000 customers each in 2021-22 (Figure 5.2). In total, the 10 largest retailers held 95% of the market. The remaining 25 retailers in the market make up a combined market share of around 5%.[111]

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 (2,144) was slightly lower than for the residential market (2,195).[112]

Figure 5.2 Market share for small electricity customers in NSW



Note: Customer numbers of the 6 largest electricity retailers after Origin Energy, EnergyAustralia and AGL Energy.
Source: AER, Schedule 2 - Q3 2021-22 Retail Energy Performance Data, June 2022.

Draft finding

5. The market concentration reduced slightly in 2021-22, but this likely reflects the timeframe of available data which does not capture Q4 2021-22 and should be revisited when new data is available. The combined market share of the Big 3 retailers was down slightly on last year. In 2022-22:
   - 79% of customers are supplied by the Big 3.
   - 95% of customers are supplied by 10 retailers. The remaining 5% of the market is shared between 25 retailers.

5.2 Barriers to expanding market share

We have previously reported on barriers to smaller retailers expanding their market shares. Below we discuss the potential barriers created by current wholesale market prices and the lack of regulatory consistency in some emerging areas of energy technology.

5.2.1 High wholesale energy costs may deter retailer entry in the short to medium term

In Chapter 2, we explored the recent volatility in wholesale markets, and how this flows through to impact retail markets. In Chapter 3, we explored how this wholesale market context has driven exits from the retail electricity market.

Another potential consequence of a volatile wholesale market and persistently high energy costs is that it becomes a barrier to entry for retailers in the near and medium term.

As we discussed in Chapter 2, retailers have a range of strategies to avoid being exposed to spot prices in procuring the energy their customers need. However, it may be the case that in a high-cost environment, access to these strategies is determined by scale, and smaller retailers may not be able to use them to mitigate spot price exposure. If high hedging costs persist (as discussed in Chapter 2), then it may be the case that only retailers with large asset bases will be able to use these financial instruments to manage exposure to the spot market.[113]

For prospective market entrants looking into the current market environment, it may therefore be unclear what viable strategy exists to grow their market share should they choose to enter. This may be exacerbated by the potential for consumer distrust of new, small retailers because of the recent wave of market exits.

5.2.2 Underdevelopment of technology and interoperability standards may impede some specialised service providers

As discussed in Chapter 2 and Chapter 3, there is an expanding role for smart technologies in the energy transition and as a means to adapt demand to times of day when wholesale energy prices are lower. Retailers are offering integrated solutions that coordinate solar panels, batteries, EVs, water heating systems, and smart home devices to supply the grid when prices are high, and/or draw energy from the grid specifically when prices are low. Coordinating storage, generation and demand behind the meter is also key to minimising household bills.

However, as the ESB has noted[114], there is currently a material gap in regulation and standards concerning the interoperability of different technologies. There is currently no coherent set of data standards or requirement that different kinds, and different makes, of equipment (for example, different brands of solar panels or household batteries) have to be able to 'talk to each other' or to a central control system such as a retailer. The ability of different smart devices, or hot water systems, or home batteries to be able to interface with a different control system than the one they were manufactured for varies. Some of these devices may therefore not be able to be included in a holistic solution that coordinates all of a customer's load or energy generation.

For a retailer specialising in offers that reward and/or coordinate DER and demand flexibility, lack of interoperability could represent a material barrier to entry because it limits the total pool of customers with these technologies that the retailer could potentially target (or at least makes this uncertain). It may also limit the total value these retailers can offer customers. While this problem likely affects both large and small retailers, small and specialised retailers are less able to spread their risks over a large, diversified customer base.

For these reasons, the ESB's Horizon 1 focuses specifically on technical standards and guidance within the DER implementation plan. The ESB released its Stage 1 Interoperability Policy Framework for consultation in December 2021, which acknowledges the risk that poor interoperability standards can become a barrier to market entry, and a risk to customers who can become 'locked in' with a single provider.[115] The ESB is currently considering stakeholder feedback on the consultation draft.

Chapter 6

Price and other customer outcomes

06

We assessed the changes in electricity prices and the underlying costs of supplying electricity in 2021-22. We have also considered the prices in July and August 2022, following the changes to the caps on standing offers and NEM market suspension. In a competitive market, we would expect that the change in prices broadly reflects the changes in the underlying market costs of supply.

The prices in this analysis 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. This is an important caveat for our analysis in this report because market offers are converging to the standing offer late in 2021-22 (see Figure 6.1). Some market offers are even above the standing offer.

Box 6.1 Market offers vs standing offers[116]

A standing offer is a standard retail contract available to customers not on a market offer. For instance, where there is no existing connection the local area retailer is obligated to offer to supply under the standard retail contract. The standing retailer contract is also the default contract under certain circumstances, such as when a customer moves into a premises and starts consuming without arranging a market offer, or a customer's previous retail contract terminates but the customer continues to consume electricity at the premises. Only around 10% of residential and 18% of small business customers are on a standing offer.

The model terms and conditions of the standard retail contract are set out in the National Energy Customer Framework (NECF). Since 2019-20 the DMO determined by the AER caps the maximum price that retailers can charge customers on a standard retail contract. Standing offer contracts are typically updated once per year to reflect the AER's annual determination of the DMO.

A market offer, or a market retail contract, is a plan that a customer can choose to enter with a retailer. The requirements for a market retail contract are less prescriptive. For instance, the model terms and conditions in the NECF do not apply to market retail contracts, although there are still minimum requirements that apply. There is no regulated price cap that determines the maximum retailers can charge customers on a market offer (although prices for market retail contracts have tended to be lower than prices for standard retail contracts). Retailers determine which market offers they will provide to the market and when to alter the offers that are available. As a result, market offers are typically priced to reflect the conditions of the market at the time, unlike standing offers which reflect the DMO set only once per year.

Given that some customers will be on market offers with expired discounts, the market offer may be especially unrepresentative of what some customers are paying. Slightly under 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. Bill changes may reflect both changes in price, as well as changes in consumption.

We expect to incorporate rebates billing data published by the Office of Energy and Climate Change in our analysis for our Final Report. At the time of this Draft Report, the rebates data is not yet published.

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.

6.1 Overview of price trends

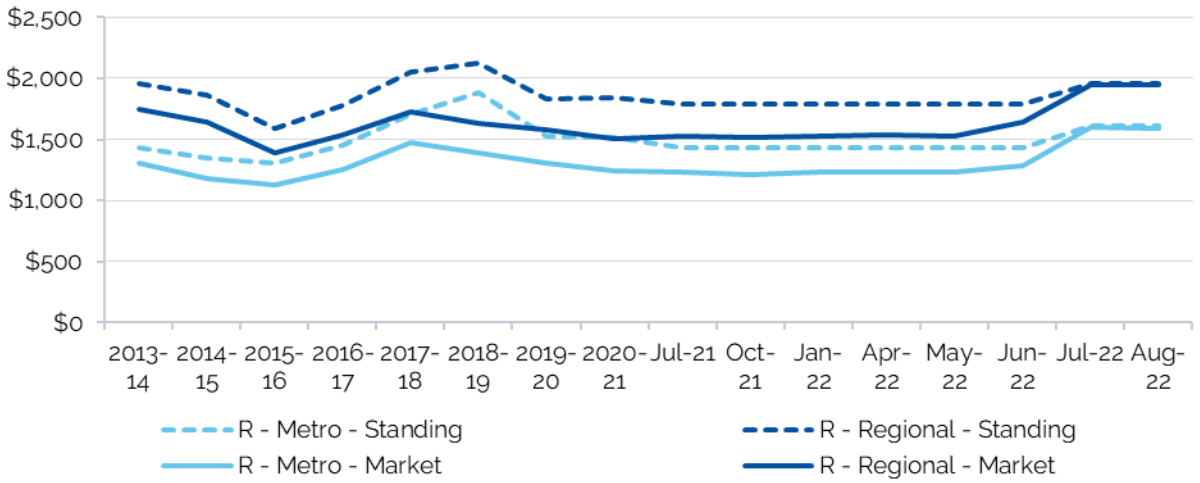
Residential electricity prices have fluctuated over the past 8 years since IPART began monitoring the market. An overview of the key trends in prices is shown in Figure 6.1. This chart compares annual average prices from previous years and monthly median prices for 2021-22 and the beginning of 2022-23, in order to show the historical context for substantial price rises that have only occurred late in the 2021-22 year. It shows:

- For market offers, prices in 2021-22 stayed below their peak in 2017-18 and 2018-19, and slightly below prices in 2013-14 when IPART began its monitoring role. However, this changes dramatically in July and August 2022 when prices rise to their highest since deregulation in 2013-14.
- 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 and reset them annually were introduced in 2019-20. Standing offer prices have since fallen significantly. However, due to high wholesale electricity prices the standing offer was raised on 1 July 2022.[117] Standing offer prices are now higher than they were in 2013-14 when the market was deregulated, but still lower than their peak in 2018-19.
- The difference between standing offers and market offers has narrowed drastically, though this occurred after 2021-22. In May 2022 the median residential market offer was approximately 15% below the standing offer. This is still a smaller gap than last year (which was around 20%).[118] However, in August 2022, median market offers were effectively the same as the standing offer (less than 2% below the standing offer).
- Prices in regional areas have remained around 27% higher than prices in metro areas by the end of 2021-22.[a] This is because in regional areas, network costs are around 60% higher than metro areas, because the poles and wires cover a larger geographic area with a much sparser population.[119]

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

[a] Median residential market offers as at June 2022.

Figure 6.1 Annual residential electricity bills for median offers by offer type and region



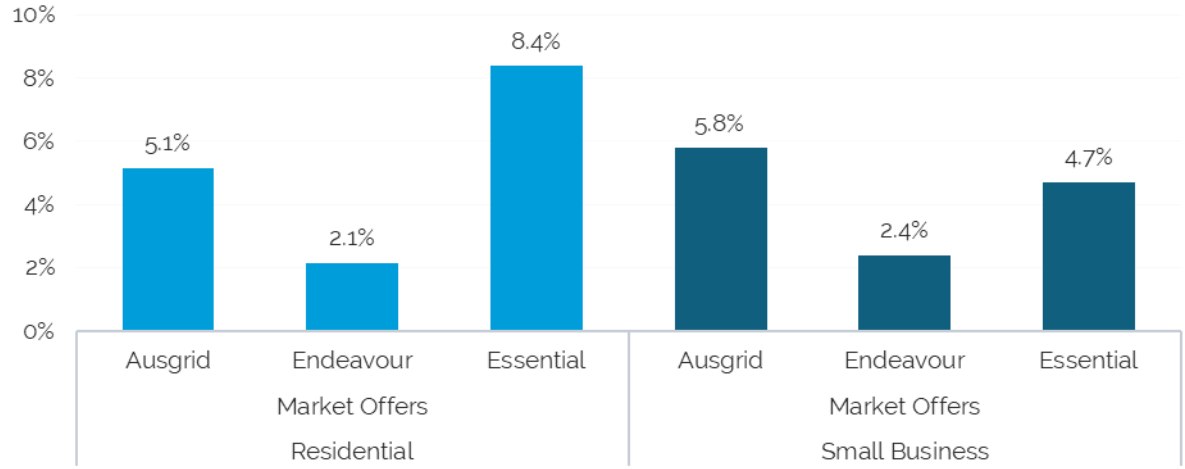
a. Annual electricity bills based on 4,215 kWh of residential electricity purchased, including GST, nominal
b. Regional refers to median of all offers in the Essential Energy network. Metro refers to the median of all offers in the Ausgrid and Endeavour Energy networks.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

6.2 Prices have risen modestly from 2020-21 to 2021-22 and strongly over early 2022-23

Overall, median market offer prices for both residential and small business customers increased from 2020-21 to 2021-22 (Figure 6.2). For residential customers, they increased most in the Essential network, by about 8%. For small business customers, the greatest increase was in the Ausgrid network (almost 6%).

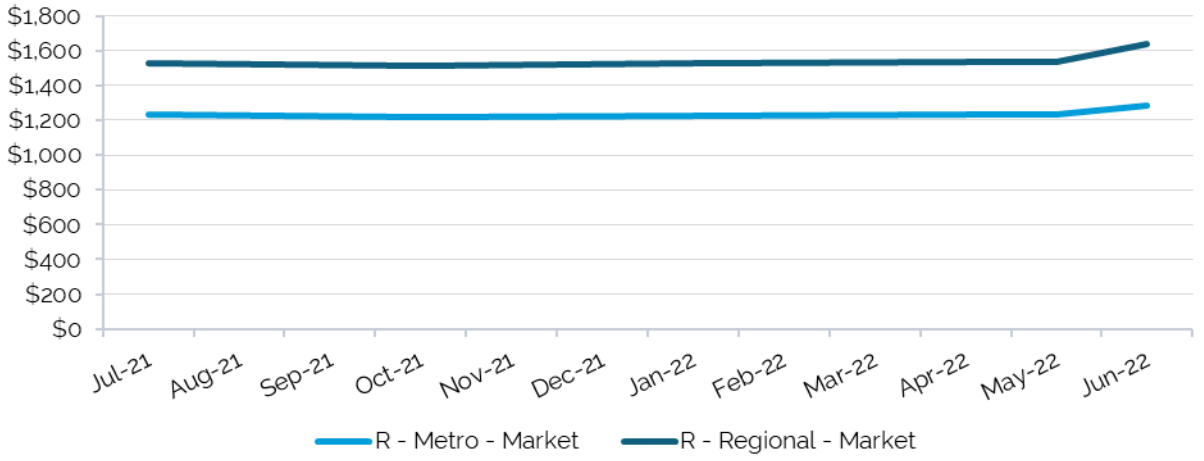
Figure 6.2 Change in median market offer prices for residential and small business electricity by network area, June 2021 to June 2022



a. Annual electricity bills based on 4,215 kWh of residential and 20 MWh of business electricity purchased, including GST, nominal.
Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

However, the overall year-on-year price changes conceal what was actually very little price movement across most of 2021-22 except for the final two months of the financial year (May and June). See Figure 6.3 and Figure 6.4.

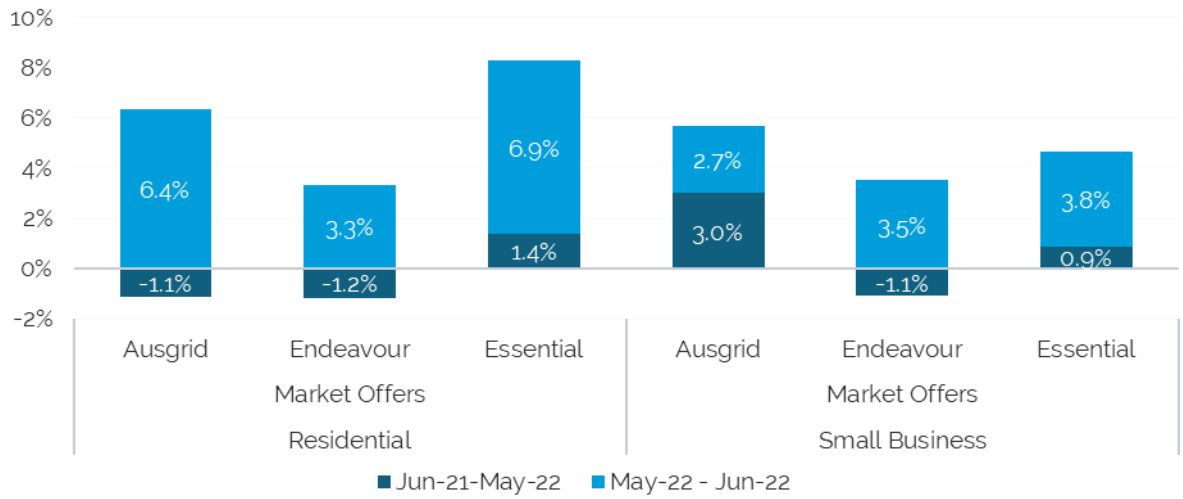
Figure 6.3 Median market offers for residential electricity over 2021-22 by region



a. Annual electricity bills based on 4,215 kWh of residential electricity purchased, incl GST, nominal
b. Regional refers to median of all offers in the Essential Energy network. Metro refers to the median of all offers in the Ausgrid and Endeavour Energy networks.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Figure 6.4 Change in median offers for residential electricity offers June 2021 to June 2022 by network area and offer type



a. Based on 4,215 kWh of residential and 20 MWh of business electricity purchased, including GST, nominal.
b. Jun 21 – May 22 is calculated as the percentage change in the median offer price from June 2021 to May 2022. May 22 – Jun 22 is calculated as the percentage change in the median offer price from May 2022 to June 2022. This is intended to demonstrate relative prices changes at different points in the year. Light blue and dark blue figures cannot be added to measure offer price changes from June 2021 to June 2022.

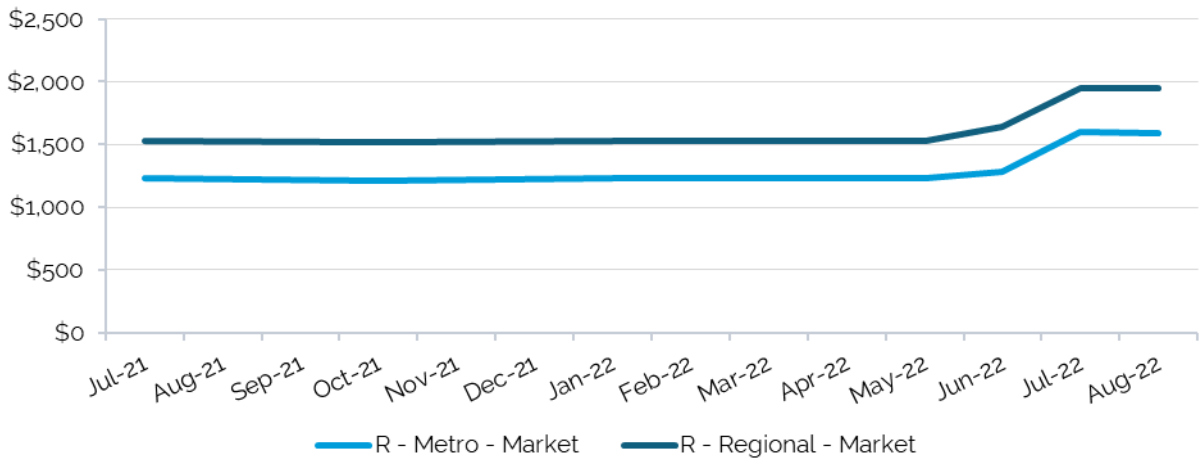
Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

For residential market offers, prices were effectively flat (plus or minus about 1%) in all networks from June 2021 to May 2022. However, in the final month of 2021-22 all network areas saw prices rising much more substantially, increasing between 3% and 7% over the previous month. This pattern is similar for business customers, except for Ausgrid customers who did see a 3% rise earlier in 2021-22 (prices rose subtly but steadily every month before larger rises in May and June). Small business offers rose less in total than residential offers, between 2% and 4% increase in the final month of 2021-22.

Market offer prices for electricity increased markedly since June 2022

Median market offers for both residential and small business customers increased further, and quite significantly, for all network areas between June and August of 2022. (Figure 6.5 and Figure 6.6).

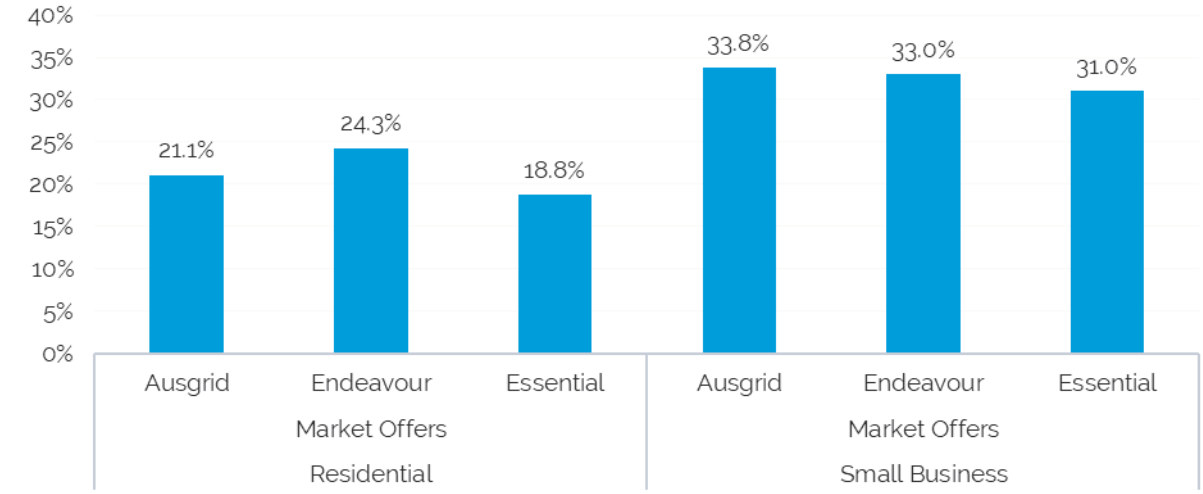
Figure 6.5 Median market offers for residential electricity over 2021-22 and early 2022-23 by region



a. Annual electricity bills based on 4,215 kWh of residential electricity purchased, including GST, nominal
b. Regional refers to median of all offers in the Essential Energy network. Metro refers to the median of all offers in the Ausgrid and Endeavour Energy networks.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Figure 6.6 Change in median market offers June-August 2022 by network area and customer type



a. Based on 4,215 kWh of residential and 20 MWh of business electricity purchased, including GST, nominal.

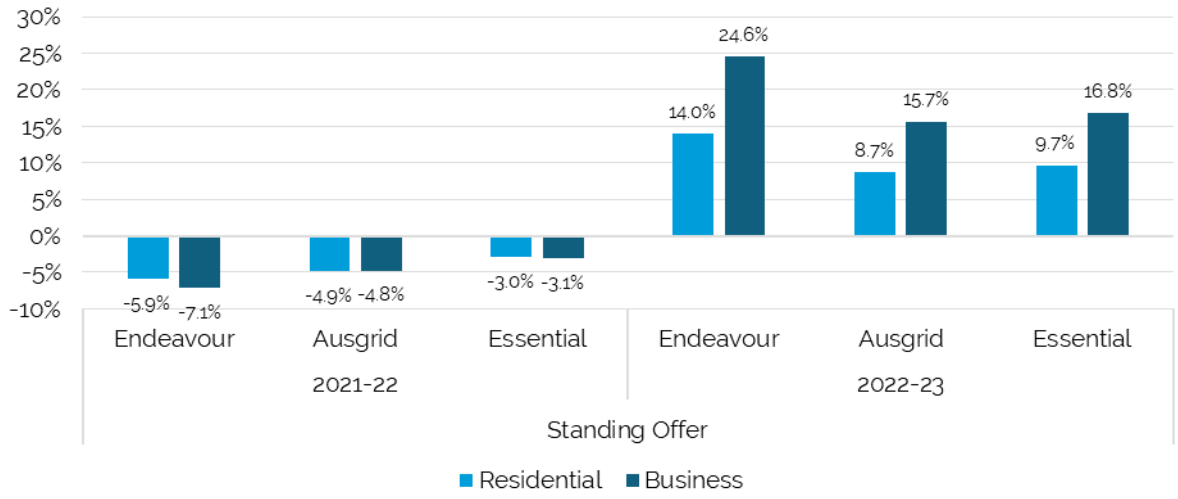
Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Offer prices for residential customers increased by between around 19% (in the Essential network) and around 24% (in the Endeavour network) (Figure 6.6). Offer prices rose a lot more for small business customers, though by quite similar amounts between networks (31% in the Essential network, 33% in the Endeavour network, and about 34% in the Ausgrid network).

Standing offer prices fell on 1 July 2021 then rose on 1 July 2022 to reflect changes in the DMO

Since 2020-21, standing offers decreased by between 3% and 6% for residential customers, and by a similar amount for small business customers (between 3% and 7%) (Figure 6.7). Because standing offers are capped by the DMO set by the AER, most retailers set their standing offer to match the DMO. Standing offer price decreases therefore reflect the change in the DMO when it was reset on 1 July 2021, and not up-to-date market conditions.

Figure 6.7 Change from previous year in median standing offers by network area and customer type



a. Based on 4,215 kWh of residential and 20 MWh of business electricity purchased, including GST, nominal.
b. 2021-22 refers to the period between June 2021 and June 2022. 2022-23 refers to the period between June 2022 and August 2022.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Figure 6.7 shows the percentage changes in median standing offers between 2020-21 and 2021-22, and from 2021-22 to 2022-23.

Following the AER's subsequent DMO reset on 1 July 2022, standing offers rose markedly, by between about 9% and about 14% for residential customers and by between around 16% and around 25% for small business customers (Figure 6.7). These increases are driven by rising wholesale electricity costs, however, standing offers did not rise as much as market offers because the DMO was set for the 2022-23 year in late May, and thus did not account for the full extent of wholesale energy price increases at the end of 2021-22 or in early 202-23 (July and August). A key characteristic of standing offer prices is that they lag behind market offer changes (and changes in market conditions) because they are set once annually. The AER must finalise the DMO in late May for the next financial year[120] and then those maximum prices must apply for the whole year.[121] In contrast, retailers can update the market offers at any time to reflect changing market conditions.

Box 6.2 The Default Market Offer

The DMO is the maximum price that retailers can charge electricity customers on standing offers.

The purpose of the DMO is to act as a fallback price for those customers who are not engaged in the market, and should not be a low-priced alternative to a market offer.[122] It aims 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).[123]

The DMO came into effect on 1 July 2019 determined by the AER. The AER is required to determine a reasonable total annual price for supplying electricity to small residential customers and small business customers on standing offers in New South Wales, South Australia and South East Queensland.[124] The AER is required to determine the DMO for a financial year in May of the previous financial year.

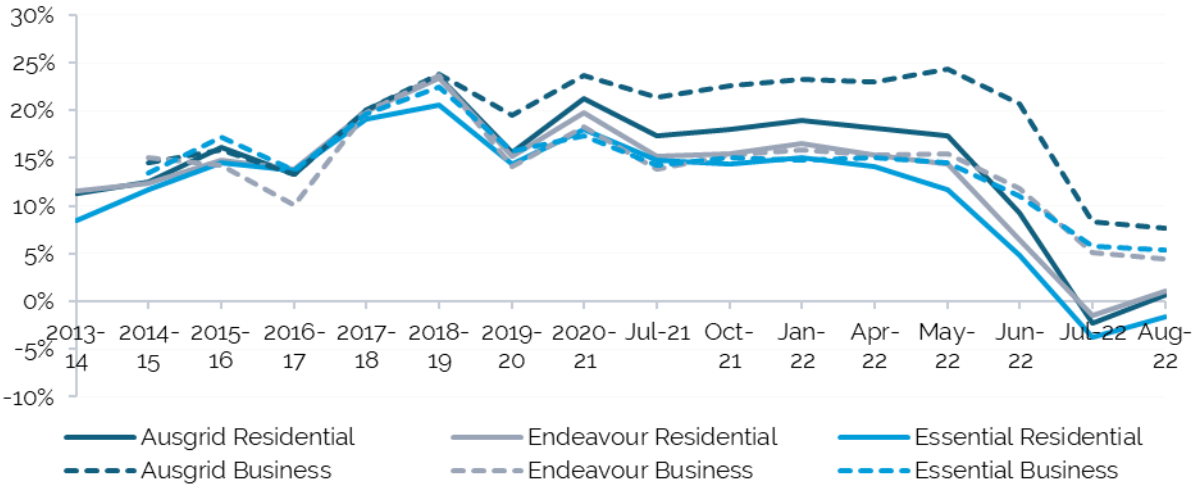
A different DMO applies for each network areas across most regions in Australia. The DMO for each network should broadly reflect the costs the AER expects retailers to incur in supplying electricity to customers. The DMO price is set according to a building block methodology that includes:

- network costs
- wholesale energy costs
- environmental costs
- retail costs and allowances.[125]

Retail costs and allowances are intended 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.[126] 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 under regular conditions is likely to overestimate retailers' costs.[127] However, as this report has explored, retailers have not faced normal conditions towards the end of 2021-22 and early 2022-23, it may be the case that the wholesale cost and headroom allowances in the 2021-22 DMO were insufficient for them to recover their costs. This observation is supported by Figure 6.8 below which shows that some of the *lowest* market offers are now above the standing offer.

The gap between the median lowest market offer and the median standing offer narrowed dramatically in July and August 2022. Figure 6.8 shows the average difference between each retailer's lowest market offer and their standing offer, across each network area. The average difference remained stable up until May 2022 (ranging between 12% and 24% depending on the network and business/residential), but narrowed significantly from June 2022 and even dropped to negative (that is, the market offer is above the standing offer) for residential customers in July and August. The average difference for small business customers was higher than for residential customers in July and August at around 5-8% depending on the network.

Figure 6.8 Average difference between each retailer's lowest and standing offer (as a percentage of the standing offer)



Note: Anytime (that is, single rate, rather than time of use or demand tariffs) offers only. We don't have data on market prices for business customers for 2013-14.

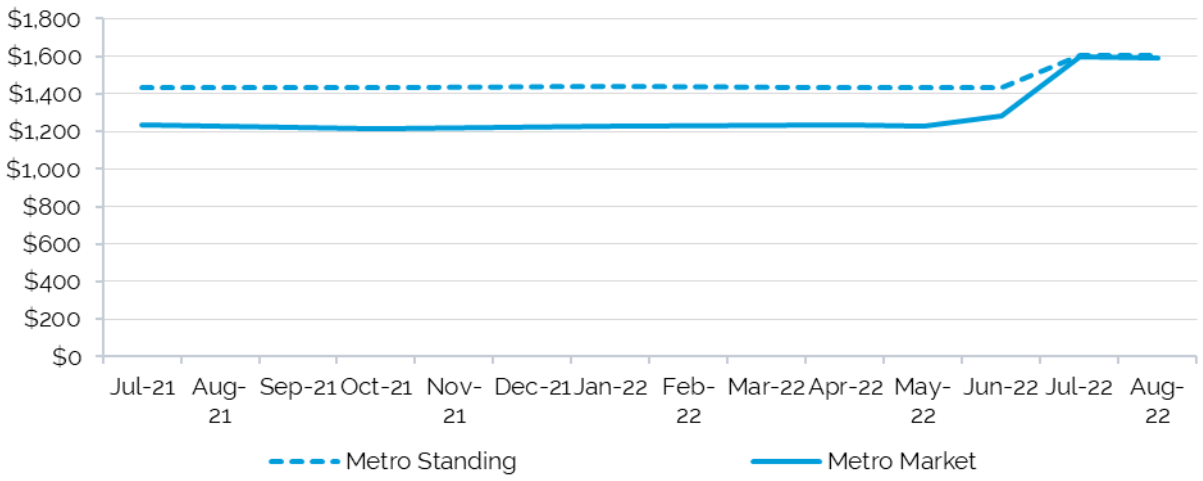
Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Metro customers saw the greatest relative price increases since June 2022

Figure 6.9 and Figure 6.10 show the changes in annual residential bills over time for both regional and metro customers. It shows that prices increased by less for regional customers than it did for metro customers. The increases in the annual bill in dollar terms was similar between metro and regional areas; about $303 for metro customers and $307 for regional customers.[b] However, for regional customers this is around a 19% increase, while for metro customers this is around a 24% increase.

[b] For residential customers, assuming typical annual consumption of 4,215 kWh electricity.

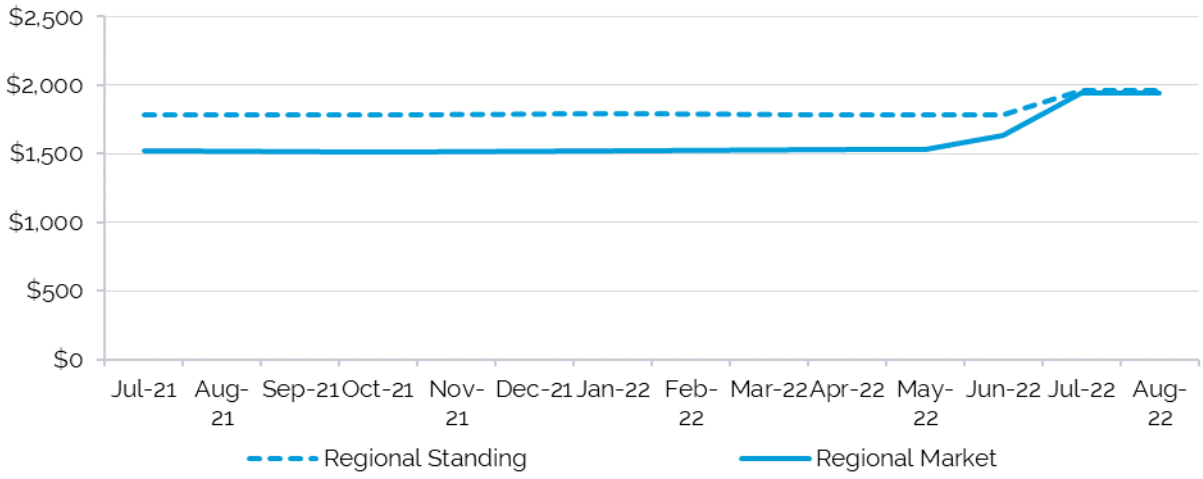
Figure 6.9 Annual residential electricity bills for median offers by all retailers, by offer type for metro customers



a. Based on 4,215 kWh of residential electricity purchased, including GST, nominal.
b. Regional refers to median of all offers in the Essential Energy network. Metro refers to the median of all offers in the Ausgrid and Endeavour Energy networks.

Source: IPART analysis of data from Energy Made Easy, Accessed May-August 2022.

Figure 6.10 Annual residential electricity bills for median offers by all retailers, by offer type for regional customers



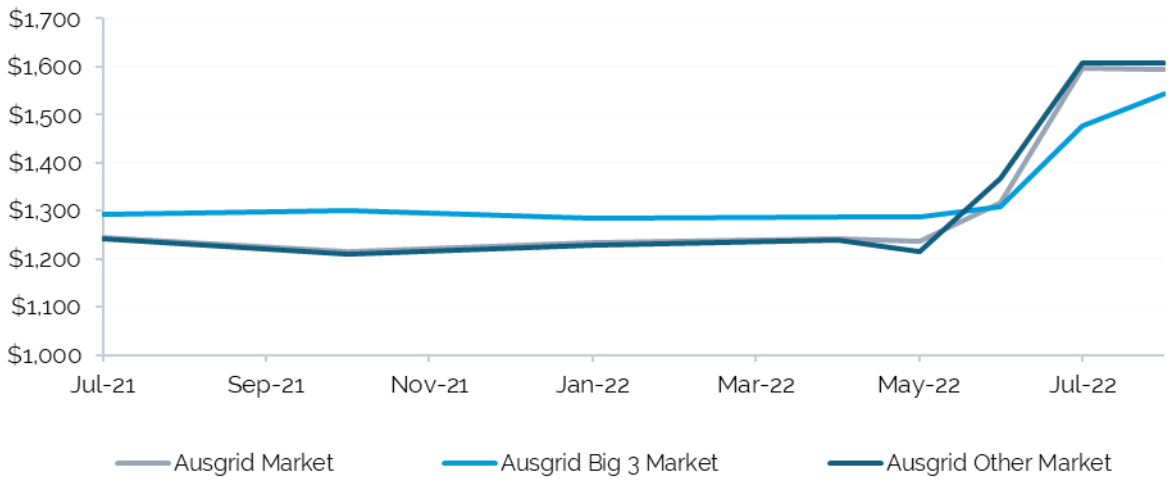
a. Based on 4,215 kWh of residential electricity purchased, including GST, nominal.
b. Regional refers to median of all offers in the Essential Energy network. Metro refers to the median of all offers in the Ausgrid and Endeavour Energy networks.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Since May 2022, Big 3 retailer offer prices increased by a lot less than smaller retailers in the market

We also looked at how the median market offer of the Big 3 compares to all other retailers over time, especially following June 2022. Figure 6.11 shows this comparison, using the Ausgrid network as an example.

Figure 6.11 Median offer of Big 3 retailers vs all other retailers (Ausgrid network)



a. Based on 4,215 kWh of residential electricity purchased, including GST, nominal.
b. Ausgrid Market refers to the median market offer among all market offers while Ausgrid Big 3 Market and Ausgrid Other Market refer to the median offers among the Big 3 retailers (Origin, EnergyAustralia, AGL Energy) and all other retailers respectively

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Historically, the market offers of the Big 3 have been slightly higher than those of the other retailers in the market. In June 2022, the gap narrowed, as the market offers of other retailers increased significantly while only slightly increasing for the Big 3. In July and August, the market offers of other retailers increased far more than they did for the Big 3. This might be explained by smaller retailers needing to increase their prices significantly in order to stay in operation, while the Big 3 may have more of a financial buffer and so can limit or defer price increases. Alternatively, this may reflect differences in hedging strategies between larger and smaller retailers, where large retailers are hedged more conservatively (and therefore were less exposed to very high spot market prices). Smaller retailers, who may have a higher risk appetite as part of a business model to grow market share, may have greater proportions of unhedged load for which very high costs needed to be recovered.

6.2.1 Price increases reflect rising wholesale costs

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.

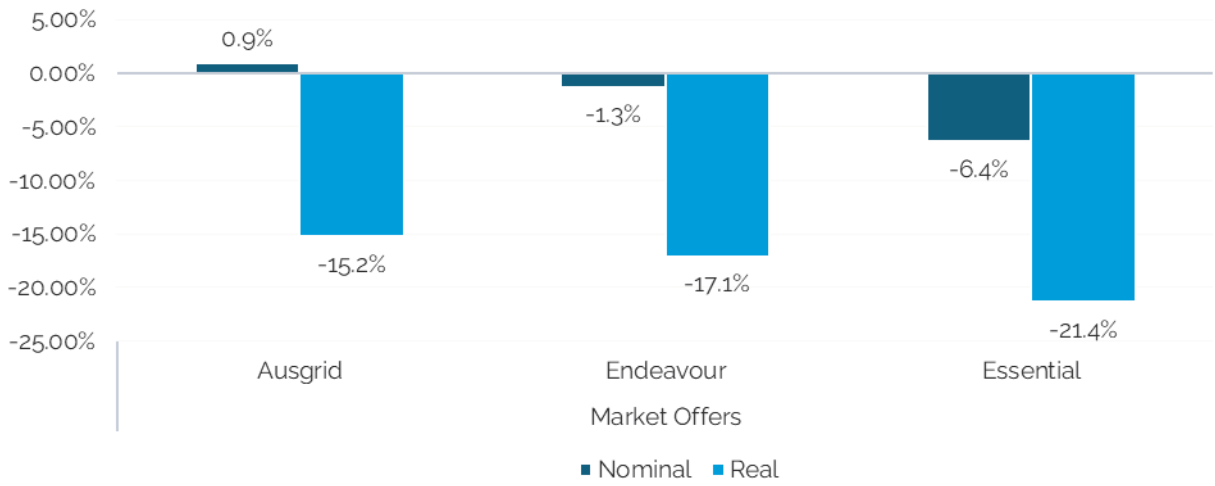
The 2021-22 price increases were driven by rising wholesale costs (discussed in Chapter 2). The other major cost component, network costs, increased from 2020-21 to 2021-22 by on average less than 4% for typical residential customers.[128] From 2021-22 to 2022-23 this figure was less than 2%.[129]

6.3 Prices in some networks are now higher than when IPART began monitoring markets in 2013-14

Consistent with trends discussed above, there are strong differences in how current prices compare to earlier periods in time depending on the time of year analysed. If we consider the difference between when IPART first started monitoring the markets and 2021-22, we see patterns consistent with previous recent reports.

Measured up until June 2022, market offers are materially lower than in 2013-14 in real terms; between 15% and 21% lower (Figure 6.12). This reflects the trend of the last few years where retailers discount off the standing offer to attract customers. Up until the end of 2021-22, customers on the median market offer were substantially better off than in 2013-14.

Figure 6.12 Cumulative price change in nominal and real terms from 2013-14 to June 2022

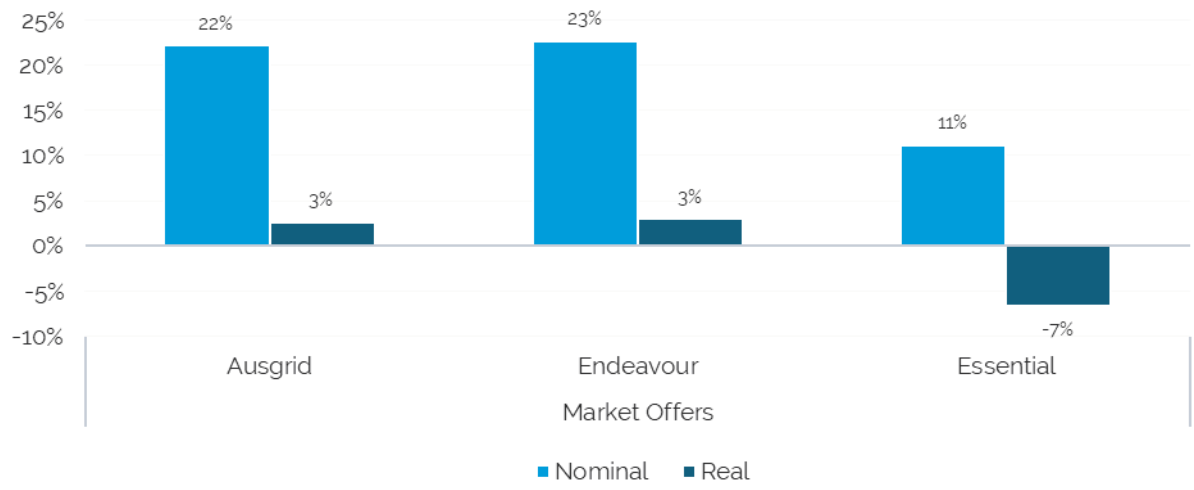


a. Median residential market offers, based on 4,215 kWh of residential electricity purchased, including GST.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

However, if we include recent months (July and August 2022) in the analysis, the picture presented by cumulative price changes is quite different (Figure 6.13).

Figure 6.13 Cumulative price change in nominal and real terms from 2013-14 to August 2022



a. Median residential market offers, based on 4,215 kWh of residential electricity purchased, including GST.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

In real terms, in the Ausgrid and Endeavour networks, market prices have increased, by 3%, while they have decreased by 7% in the Essential network (Figure 6.13). This highlights the extent of price rises in market offers that have been concentrated in recent months and shows the impact of a specific external shock – the increase in wholesale energy costs.

Draft findings

6. Market offer prices were mostly flat over most of 2021-22, with stronger increases occurring in June and substantial increases occurring in July and August:
   - The median market offer for residential and business customers rose by between around 2% to 8% in nominal terms from June 2021 to June 2022.
   - The median standing offer fell moderately following the 1 July 2021 reset of the DMO, but rose substantially following the 1 July 2022 reset by around 9% to 25% in nominal terms.

7. Price changes broadly reflected the underlying changes in costs in 2021-22 – wholesale prices specifically. A detailed review of prices and profit margins is not required.

8. Compared to 2013-14 when retail electricity was deregulated, market offer prices were lower in 2021-22 in all networks. However, as at August 2022 they are now higher than 2013-14 in real terms by 3% in the Ausgrid and Endeavour networks. This only the case because of price rises in June, July and August 2022.

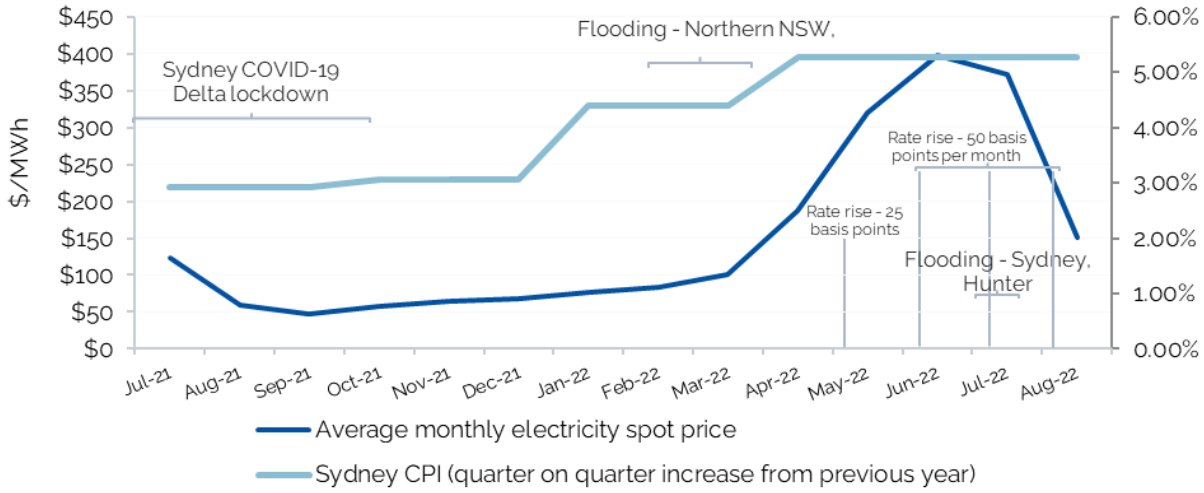
6.4 Customer hardship is increasing as combination of factors put pressure on customers

During 2021-22, a number of factors simultaneously put pressure on customers' ability to pay for energy. These include:

- high energy prices towards the end of the year
- rising cost of living driven by inflation and interest rate rises (Figure 6.14)
- potential economic effects of COVID-19
- natural disasters, primarily flooding driven by an exceptionally wet year.

These factors are shown on a timeline over the 2021-22 year below in Figure 6.14.

Figure 6.14 Timeline of key factors that can impact customers' ability to pay



Source: IPART analysis of AEMO NEMWEB data, SMH, 31 March 2022, ABC News, 3 March 2022, The Guardian, 2 March 2022, SMH, June 30 2022, BBC News, 4 July 2022, SMH, 11 October 2022, ABC News, 25 June 2021, ABS, Sydney Consumer Price Index (TABLE 5. CPI: Groups, Index Numbers by Capital City, Series ID A2325806K), Reserve Bank of Australia, Monetary Policy Decisions 2022.

The potential cumulative impacts of these factors raise concerns about consumer hardship and customers experiencing vulnerability. Figures from the AER up until March 2022 do show that numbers of customers in energy debt, total debt per customer, and numbers of customers on payment plans have increased.[130] This trend is likely to continue in 2022-23, as retailers raise prices from 1 July 2022 and inflation further reduces customer spending power.

In December 2021, the AER published its Draft Consumer Vulnerability Strategy, which strengthens protections for customers experiencing hardship.[131] Under this strategy the AER has announced five key compliance and enforcement priorities. These include the requirement for retailers to identify and tailor their assistance to residential customers in financial difficulty, particularly those affected by family violence. The AEMC also issued a draft rule in June 2022 on this point to ensure retailers establish more secure means of communicating with these customers.[132]

Another key outcome of the AER's Customer Vulnerability Strategy is to reduce customer energy debt. Retail performance data reported by the AER indicates that the number of residential and small business customers repaying energy debt in NSW has increased from June 2021 to March 2022. The average amount of energy debt carried by these customers has also increased by $75 (7.3%) in March 2022, up from $1,028 in June 2021.[133] The number of residential energy customers on payment plans in NSW has also increased, in line with broader national trends. This upward trend is likely to continue in 2022-23, as retailers raise prices from 1 July 2022 and inflation reduces customer spending power. The recent increase in the DMO may drive a further increase in customer hardship in the next few months.

AER data indicate similar trends among residential electricity customers on hardship programs. In NSW, the number of customers on these programs has increased by 24%, from 28,793 in June 2021 to 35,594 by March 2022.[134] The average debt of NSW customers on these hardship programs remains high in the pandemic years at an average of $1,648 in March 2022 compared to $1,630 in June 2021 and $1,274 in June 2020[135]. It is therefore understandable that the number of customers receiving energy concessions in NSW has also increased in the same period.

Despite these outcomes, the number of customer energy disconnections continues to decrease in NSW for both residential and small business customers.[136] Customer complaints have also decreased, reflecting the AER's strict enforcement of its consumer protection program among energy retailers.

The NSW Government does offer a range of assistance to households. Its assistance payments are shown in Table 6.1. Service NSW also operates an in-person service as part of its Savings Finder initiative that provides customer with expert help accessing savings and rebates specific to their circumstances.[137]

Table 6.1 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
Energy Accounts Payment Assistance	Helps people in financial crisis cover the cost of energy bills	$50 vouchers – depends on individual assessment

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 13 September 2022.

We will analyse data from electricity and gas rebates to gain a better understanding of bills actually paid by customers, once it is available for 2021-22.

6.4.1 Factors other than COVID-19 are likely contributing to customers experiencing vulnerability

We indicated we would continue monitoring the effects of COVID-19 in this report, primarily because NSW's longest lockdown occurred from 25 June to 11 October 2021 and therefore some impacts of COVID-19 may be ongoing. We consider that the likely key impacts of COVID-19 may be:

- Changes to energy consumption – more people working from home, and restrictions on leaving home, have the potential to increase electricity consumption by residential customers, and also to change the times at which these customers tend to consume electricity. This could increase customer bills. Changes affecting the activities of small businesses have the potential to decrease electricity consumption by small business customers, and also to change the times at which these customers tend to consume electricity.
- Economic impacts of lockdown or other health measures – some customers who may have had their work or business disrupted by health orders or the need to home-school or care for others may struggle to pay for energy due to lost income. Some businesses may not yet have returned to pre-pandemic levels of demand.
- To the extent that more customers are unable to pay for energy because of COVID-19 impacts, the cost to retailers of managing bad debt may increase.
- Over the course of 2020 and 2021, the AER released a series of Statements of Expectations (SoE) containing some form of prohibition on disconnecting customers.[138] The most recent iteration of the SoE expired 14 days after health orders were lifted on 11 October 2021. The Australian Consumer Law prohibits warning customers that they can be disconnected because they cannot actually be disconnected. However, for many customers, early communications from retailers about the risk of disconnection is the key trigger for customers to pursue hardship or payment plan arrangements. Without this trigger, many customers who would ordinarily have entered an assistance plan in 2021 may only now do so following the recommencement of disconnection warnings.

It is difficult to discern the extent and mix of these different factors. Other analysis conducted for the ESC about the impact of COVID-19 on load in 2020 in Victoria found that while there may be some evidence of an increase in residential consumption associated with lockdowns, the evidence was not clear cut and there was only weak evidence of any change in the timing of consumption across the day.[139]

Chapter 7

Impact of the default market offer

07

The DMO is a cap on bills at a specified level of consumption[a] that a retailer can charge residential and small business customers on the standing offer contract. 'Standing offers' are the default offer for customers that haven't signed up to a 'market offer' – market offers are all other offers in the market. Customers might be on a standing offer if they have:

- never switched to a retailer's market offer
- moved into a premises and are supplied by the existing retailer but are yet to make contact with the retailer.

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).[140]

Since 2019-20, the AER has set a maximum bill for standing offers once annually[141], and so most retailers have set their standing offers equal to the DMO. Some standing offers are slightly lower. In NSW there are around 10% of residential, and about 18% of small business customers on standing offers.

A different DMO applies for each network area in the NEM where there is no other form of price regulation. The AER sets a DMO for each network that should broadly reflect the costs it expects retailers to incur in supplying electricity to customers.

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

7.1 The DMO appears to be functioning appropriately as a reference price in 2021-22

Although it only directly protects a small percentage of customers, the DMO acts as a 'soft cap' on market offers because retailers are required to advertise the discount of a given market offer relative to the DMO. Most customers would look elsewhere for a better deal if that discount were negative (i.e. the market offer is higher than DMO).

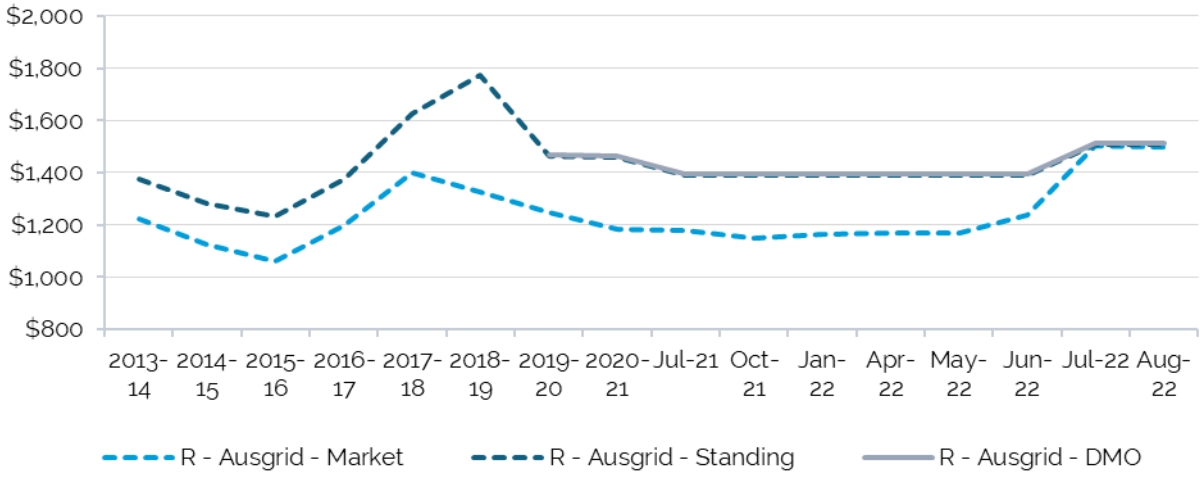
The DMO appears to be working as intended for 2021-22. This means during 2021-22 retailers competed for customers by discounting market offers relative to the standing offer. However this changed in July 2022 when market offers increased to be quite close to the standing offer (which is capped by the DMO). This suggests that the DMO may protect customers in the future but may reduce competition in the retail market if retailers are unable to recover their costs and leave the market.

While this report is focused on the financial year 2021-22, wholesale market volatility has continued throughout July and August 2022. This suggests a greater focus on the role and function of the DMO may be relevant for subsequent market monitoring reports, especially if we see further retailer exits in the remainder of 2022-23.

[a] 3,900 kWh per year for residential customers, and 20 MWh per year for small business customers

Nevertheless, Figure 7.1, Figure 7.2, and Figure 7.3 show that market offers for customers were lower than the standing offers in all network areas. This suggests the DMO was providing an effective reference price for residential customers in all networks over 2021-22, without impeding retail competition. The relationship between standing and market offers was very similar across the three network areas.

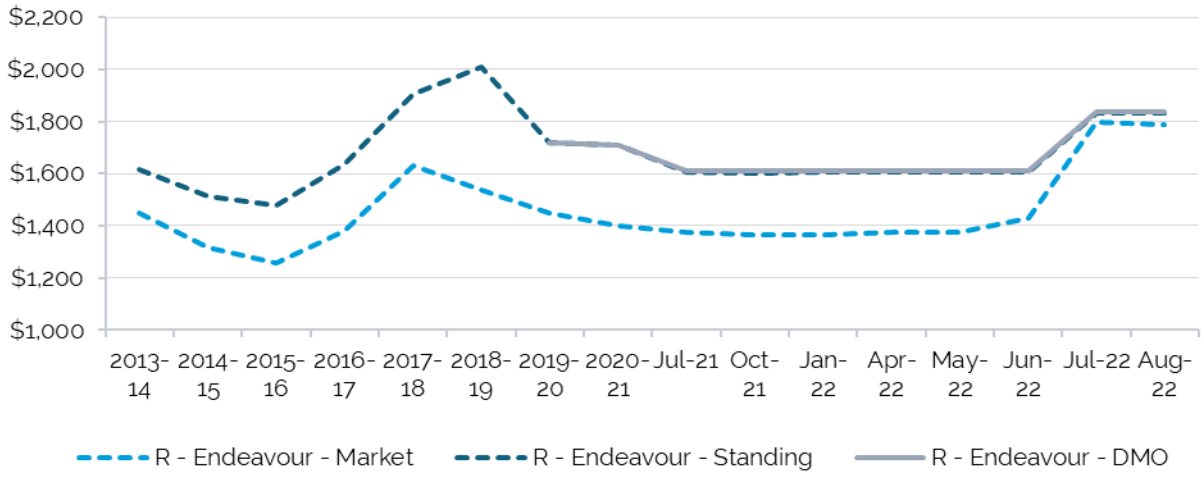
Figure 7.1 Annual median residential electricity bills for Ausgrid



a. Based on 3,900 kWh of residential electricity purchased, including GST, nominal.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

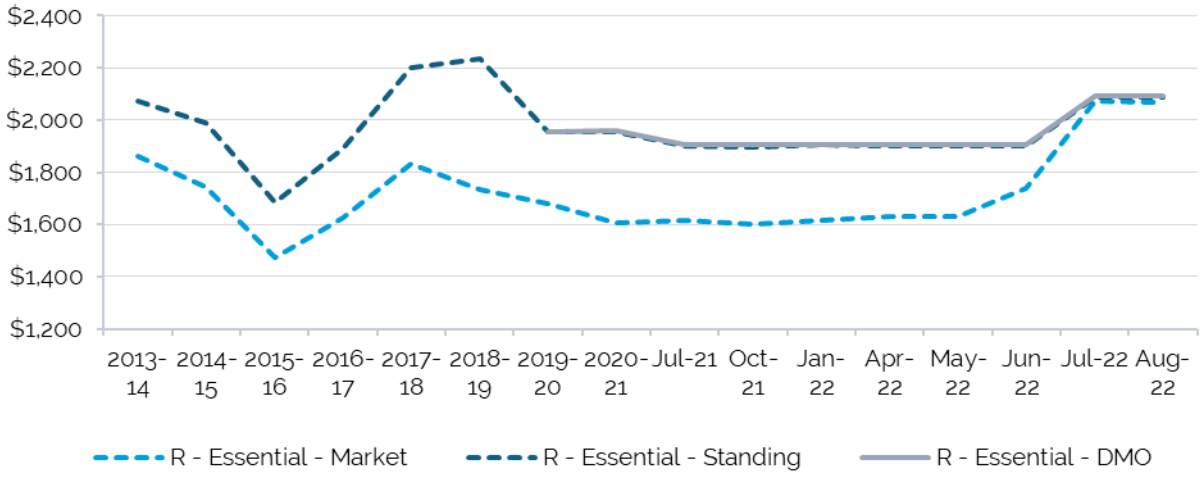
Figure 7.2 Annual median residential electricity bills for Endeavour Energy



a. Based on 4,900 kWh of residential electricity purchased, including GST, nominal.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Figure 7.3 Annual median residential electricity bills for Essential Energy



a. Based on 4,600 kWh of residential electricity purchased, including GST, nominal.

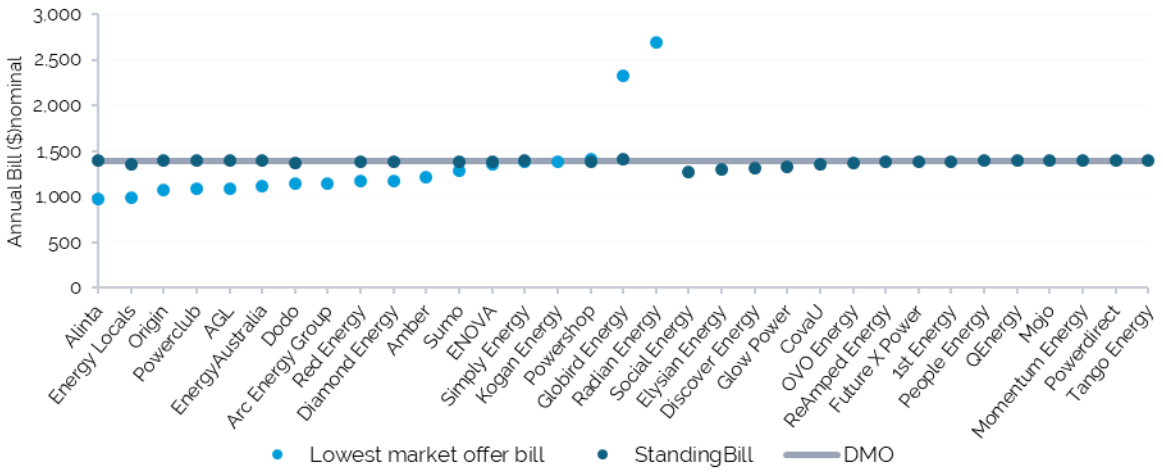
Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

The relationship between market and standing offers means that during 2021-22 retailers competed for customers by discounting market offers relative to the standing offer, which is one indicator of effective competition in the market.

However this changed in July 2022, when market offers increased to become closer to the standing offer. This is because market offers can be changed any time and therefore fluctuate with market conditions including the rising wholesale prices towards the end of 2021-22. However, the standing offer is capped by the DMO which was fixed for 2021-22 before recent wholesale market conditions and therefore cannot rise to reflect those conditions.

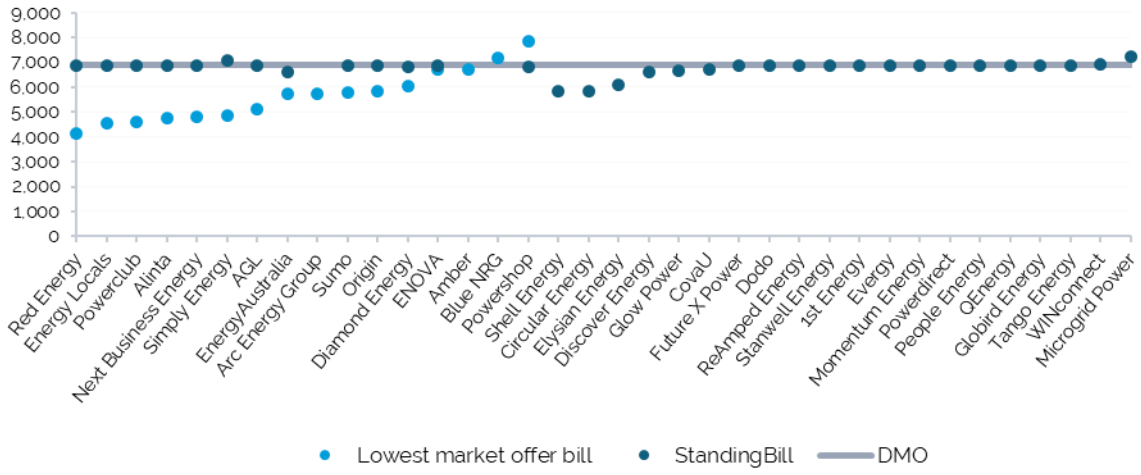
During the financial year 2021-22, many retailers had offers which were lower than their standing offer and the DMO. This can be seen for residential customers in the Ausgrid network in Figure 7.4 and similarly for business customers in Figure 7.5. Many retailers do not offer market offers, which means they are not actively competing for new customers and instead retaining their existing customer base.

Figure 7.4 Anytime tariff offers for residential customers in the Ausgrid network area in June 2022



a. Annual electricity bills based on 3,900 kWh pa, nominal, GST-inclusive
b. Standing offers data for some retailers were not available.
Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Figure 7.5 Anytime tariff offers for small business customers in the Ausgrid network area in June 2022



a. Annual electricity bills based on 20 MWh pa, nominal, GST-inclusive
b. Standing offers data for some retailers were not available.
Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Market offer prices have recently increased, with some now above the DMO. When considered alongside market exits and retailers with no market offers, this suggests the DMO does not provide enough headroom for wholesale electricity cost increases or further innovation of service offerings. This may mean that the DMO is less able to serve its purpose during times of wholesale price volatility and very high price peaks.[b] This is because the DMO is set ahead of time, based on market expectations. If costs end up being materially higher than determined in the DMO, then retailers may be unable to cover their costs. However, this also means that retailers who can endure peak price periods may benefit from a DMO that, by lagging the market, provides more headroom than is needed when prices fall again because the DMO was calculated on a previous period with high prices.

At the same time, Energy Made Easy data shows that even some of the lowest priced offers in the market are currently set above the DMO. This should become a focus of next year's market monitoring report and for the annual reset of the DMO by the AER. Retailers are not obligated to offer the DMO to customers on market offers. The designated retailer (a customer's current retailer, or if one does not exist, the local area retailer) must advise the customer of the availability of the retailer's standing offer if the customer is a residential or small business customer consuming less than a specified threshold. [c,142] A retailer must publish its standing offer prices on its website, which must comply with the DMO in relevant jurisdictions.[143] This effectively caps market offers at the DMO since customers can request to change to the DMO.

The Department of Industry, Science and Resources has recently completed a review into the DMO and reference price. It found that:[144]

- Consumer awareness of the DMO and reference price increased between July 2020 and January 2021.
- Consumers felt that the policy made it easier to shop around for new electricity deals.
- Consumers recognise that the reference price should make it easier to compare offers.
- Increased market participation followed the introduction of the DMO and reference price.

Draft finding

9. Standing offers remained lower than historic peaks around 2018-19 in all networks. In the Ausgrid and Endeavour networks standing offers in 2021-22 were similar to 2013-14 when retail electricity was deregulated, but were lower in the Essential network, noting that the standing offer does not account for the full extent of recent wholesale market price volatility.

10. Standing offers rose materially on 1 July 2022 to reflect higher wholesale energy costs and higher than in 2013-14 in all networks. Some retailers have now set their lowest market offers above the standing offer.

[b] Though we note this is not necessarily a role or requirement of the DMO.
[c] The specified threshold for a small business customer is 100MWh, 160MWh in South Australia or 150MWh in Tasmania.

11. The DMO functioned effectively as a reference price that caps standing offers in 2012-22, however early developments in 2022-23 suggest it will need to be closely observed next year to ensure it provides enough headroom for retailers to enable competition.

Chapter 8

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 are 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 energy to the different consumers at the site.[145]

Owners that on-sell the energy themselves are known as 'exempt sellers' because they do not need to become authorised by the AER as energy retailers. However, they do need to hold a valid exemption from the AER and follow the AER's exempt seller guideline.[146] 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.[147]

8.1 Consumer protection issues for customers in embedded networks are currently under review in NSW

Last year, we reported on concerns that consumer protections for customers in embedded networks may be inadequate because:

- Owners of embedded networks are able to outsource energy services to an authorised retailer. However, in these situations, consumers are not protected by the DMO. Where this occurs this also means that there is no requirement for retailers to reference their embedded network offers against the DMO.
- 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.
- There is currently poor visibility over key statistics for embedded networks (including how many there are, how many customers there are, and key information about household type, typical usage, and other features of a typical embedded network customer). This includes price outcomes for customers.

We committed to monitoring any key developments concerning embedded networks this year.

Insufficient information remains a barrier to better understanding and addressing consumer protection issues in embedded networks, and something that can potentially be avoided with appropriate early intervention around innovative retail offers.

The AEMC recently conducted a review to update the regulatory frameworks for embedded networks. The review found that "the current regulatory arrangements for embedded electricity networks are no longer fit for purpose, resulting in some customers not being able to access competitive prices or important customer protections.".[148] In response, the AEMC presented a package of law and rule changes which seek to address these issues.

The package was designed to improve customer protections and access to retail market competition for embedded network customers. The proposed framework is being considered by Governments.

Similarly, the Department of Environment, Land, Water and Planning in Victoria has completed a review into embedded networks in Victoria, with a Final Recommendations Report being delivered January 2022. The review identified that there is/are:

- inequities in consumer protections
- a range of practical barriers that prevent access to the competitive retail market
- a lack of information disclosure
- limitations in the regulatory framework which frequently result in poor outcomes for embedded network customers.

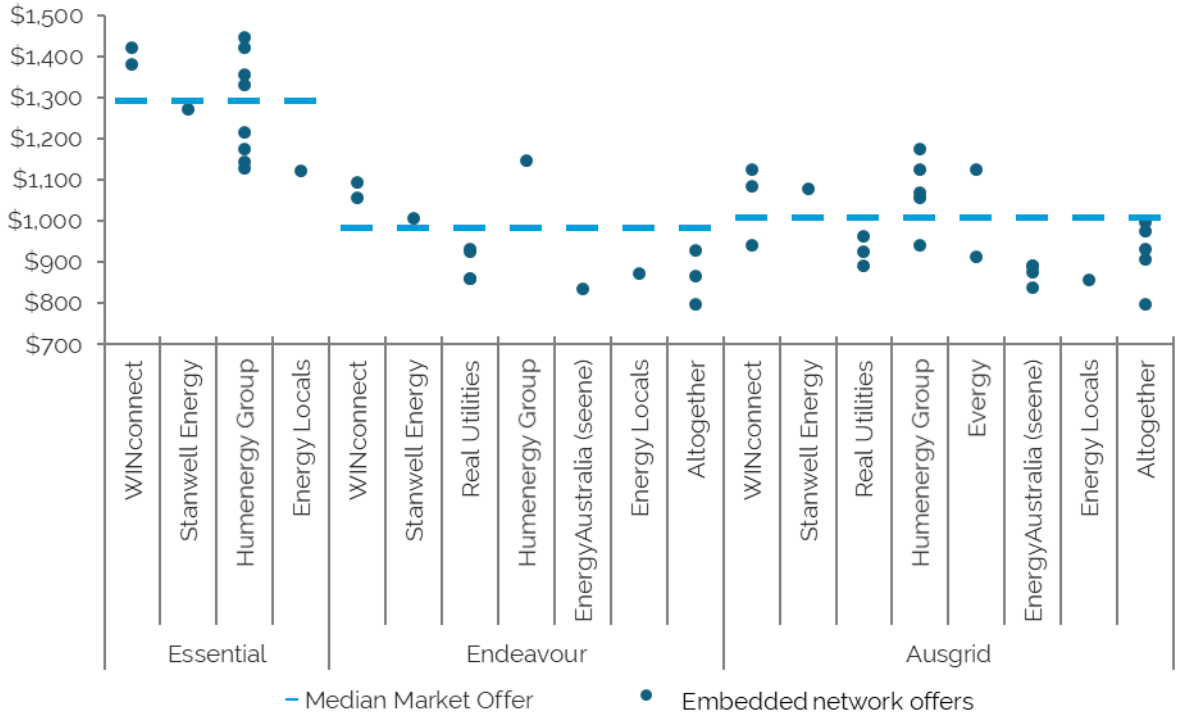
A key recommendation from the review is that the Victorian Government should ban embedded networks in new apartment buildings (with exemptions for high renewable energy embedded networks), and that all existing and new embedded networks be subject to additional conditions.[149]

The parliament of NSW is currently undertaking an inquiry into embedded networks in NSW. This inquiry is currently ongoing, so the findings are not yet available. However, there are several submissions which are available from a wide range of stakeholders. These include submissions from energy retailers, NSW electricity distribution networks, the Public Interest Advocacy Centre (PIAC), the AEMC and the AER, as well as smaller stakeholder groups. If the results of the inquiry become available before the Final Report, we will seek to incorporate these into IPART's analysis and findings.[150]

8.2 Price outcomes for embedded network customers

Like last year, 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 Energy Made Easy. However, these offers do not represent the full range of prices actually paid by embedded network customers. Embedded network operators may also charge lower rates that are not publicly available as they offer to match competitors' rates.

Figure 8.1 Embedded networks – annual residential bills by network in June 2022 compared to market offer median



a. Based on 2,920 kWh (8 kWh per day) of residential electricity purchased, including GST, nominal.

Source: IPART analysis of embedded network offers from Energy Made Easy, accessed May-August 2022.

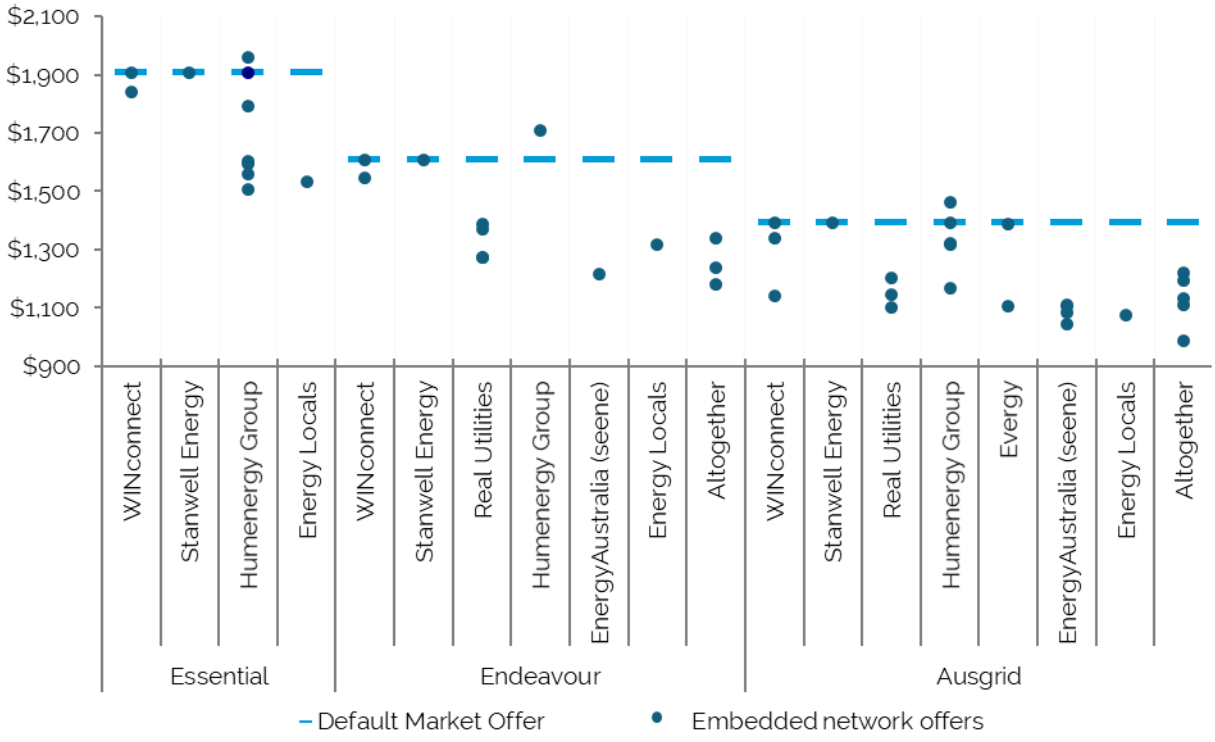
Figure 8.1 and shows the median residential market offer (light blue dash) compared with bills for different embedded network operators in different electricity network areas. We have calculated bills using our estimate of typical consumption for a residential embedded network customer (2,920 kWh annually).

Figure 8.1 shows that in June 2022, there are many cases where the embedded network bill is higher than the median market offer available outside an embedded network. There are 5 cases where all of the retailer's embedded network bills are higher than the median market offer (Stanwell Energy in the Ausgrid network, Humenergy Group, Stanwell Energy and WINconnect in the Endeavour network, and WINconnect in the Essential network). Overall, with just a few exceptions the median market offer falls somewhere in the middle of the spread of embedded network offers. When they are higher, there is a mix of bills that are slightly higher and bills that are substantially higher.

While this may suggest that embedded network customers might be likely to access a better deal amongst market offers, the data from June 2022 may reflect the transitional state of the market as retailers adjust all their offers to respond to very high wholesale prices and the reset of the standing offer on 1 July 2022. Our analysis of offers in August finds that few embedded network offers are above the market offer median.

Another key concern with the current regulatory framework is that there can be cases where end customers in embedded networks are not protected by the DMO. We have analysed residential embedded network offers and calculated bills based on DMO usage (3,900 kWh per year) for June 2022 and compared them to the bill for a customer on a standing offer capped by the DMO (see Figure 8.2).

Figure 8.2 Embedded networks –annual residential bills by network at June 2022, compared to DMO



a. Ausgrid bills are based on 3,900 kWh of residential electricity purchased, including GST, nominal.
b. Endeavour bills are based on 4,900 kWh of residential electricity purchased, including GST, nominal.
c. Essential bills are based on 4,600 kWh of residential electricity purchased, including GST, nominal.

Source: IPART analysis of embedded network offers from Energy Made Easy, accessed May-August 2022.

In June, while most bills fall well below the DMO there are still 3 instances where the embedded network bill exceeds the DMO. All of these bills are for customers supplied by the Humenergy Group.

It should be noted that our analysis estimates bills based on offer information, and this may not represent bills actually paid by embedded network customers. Further, there is limited information available on real usage for residential customers in embedded networks. The consumption used by the AER to set the DMO for residential customers (3,900 kWh per year) may exceed the usage of a typical residential embedded network customer given that these customers are more likely to live in apartments. Therefore, our comparison of embedded network bills against the DMO may not be representative.

Lastly, this data does not reflect the experiences of customers of embedded networks, as described by EWON in their submission to the NSW inquiry into embedded networks. The submission highlights some of the issues customers of embedded networks face, including a lack

of consumer protection and regulation of embedded networks, which may not necessarily manifest themselves as higher prices and so would not be apparent in the price and billing data.

We will look to incorporate any emerging outcomes from the ongoing Parliamentary Inquiry into embedded networks into our final report, subject to timing.

Appendices

Appendix A

List of retailers in the market

Table A.1 below shows the retailers that had electricity offers available on Energy Made Easy in June 2022. 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 June 2022

	Retailer	Tariffs offered		
		Anytime (single rate)	Time of use (TOU)	Demand
1	Origin Energy	✓	✓	Ausgrid business customers only
2	EnergyAustralia	✓	Ausgrid and Essential only	Ausgrid and Endeavour only
3	AGL Energy	✓	✓	✓
	ActewAGL	Endeavour and Essential only	Endeavour and Essential only	Essential business customers only
	Powerdirect	✓	✓	Ausgrid and Endeavour only
4	Red Energy	✓	✓	✓
5	1st Energy	✓	✓	Ausgrid business customers only
6	Alinta Energy	✓	✓	Ausgrid and Endeavour only
7	Amber	✓	-	-
8	Arc Energy Group	Ausgrid and Endeavour only	Ausgrid and Endeavour business customers only	-
9	Blue NRG	Business customers only	Ausgrid and Essential business customers only	Business customers only
10	Circular Energy	✓	✓	-
11	CovaU	✓	✓	✓
12	Diamond Energy	✓	✓	-
13	Discover Energy	✓	✓	✓
14	Dodo Power & Gas	✓	✓	-
15	Elysian Energy	✓	✓	Business customers only
16	Energy Locals	✓	✓	✓
17	Enova Energy	✓	✓	-
18	Future X Power	✓	-	-

	Retailer	Tariffs offered		
		Anytime (single rate)	Time of use (TOU)	Demand
19	Globird Energy	✓	✓	✓
20	Glow Power	✓	✓	Ausgrid business customers only
21	Kogan Energy	Residential only	Residential only	-
	Powershop	✓	✓	Ausgrid and Endeavour only
22	Mojo Power	Residential only	Residential only	-
23	Momentum Energy	✓	✓	Ausgrid and Endeavour only
24	Next Business Energy	Business customers only	Business customers only	Business customers only
25	OVO Energy	Residential only	-	-
26	People Energy	✓	Residential only	-
27	Powerclub	✓	✓	-
28	QEnergy	✓	✓	Ausgrid business customers only
29	Radian Energy	Residential only	Residential only	-
30	ReAmped Energy	✓	-	-
31	Simply Energy	✓	✓	Ausgrid business customers only
32	Social Energy	Residential only	-	-
33	Sonnen	Residential only	-	-
34	Sumo	✓	✓	✓
35	Tango Energy	✓	✓	Ausgrid residential customers only

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Appendix B

Median market offers and tariffs

Table B.1 shows the median market residential offers in June 2022 and August 2022 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 June/August 2022

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, including GST)	c/day (after discounts, excluding GST)	c/kWh (after discounts, excluding GST)	Annual kWh	Annual bill (including GST)
June					
Ausgrid	$1,240	70.5	22.1	3900	$1,393
Endeavour	$1,428	71.4	21.1	4900	$1,609
Essential	$1,741	130.4	23.8	4600	$1,907
August					
Ausgrid	$1,497	79.7	27.4	3900	$1,512
Endeavour	$1,789	82.9	26.9	4900	$1,836
Essential	$2,070	147.5	29.2	4600	$2,092

Note: Based on Anytime offers only. Duplicate offers are excluded before the median offers are calculated. We exclude offers with eligibility criteria (e.g. require a battery), 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 June/August 2022

	Median daily supply charge c/day (after discounts, excluding GST)	Median consumption rate c/kWh (after discounts, excluding GST)
June		
Ausgrid	75.0	22.1
Endeavour	79.8	21.1
Essential	129.6	23.9
August		
Ausgrid	79.9	27.0
Endeavour	85.1	26.3
Essential	143.3	28.6

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

Appendix C

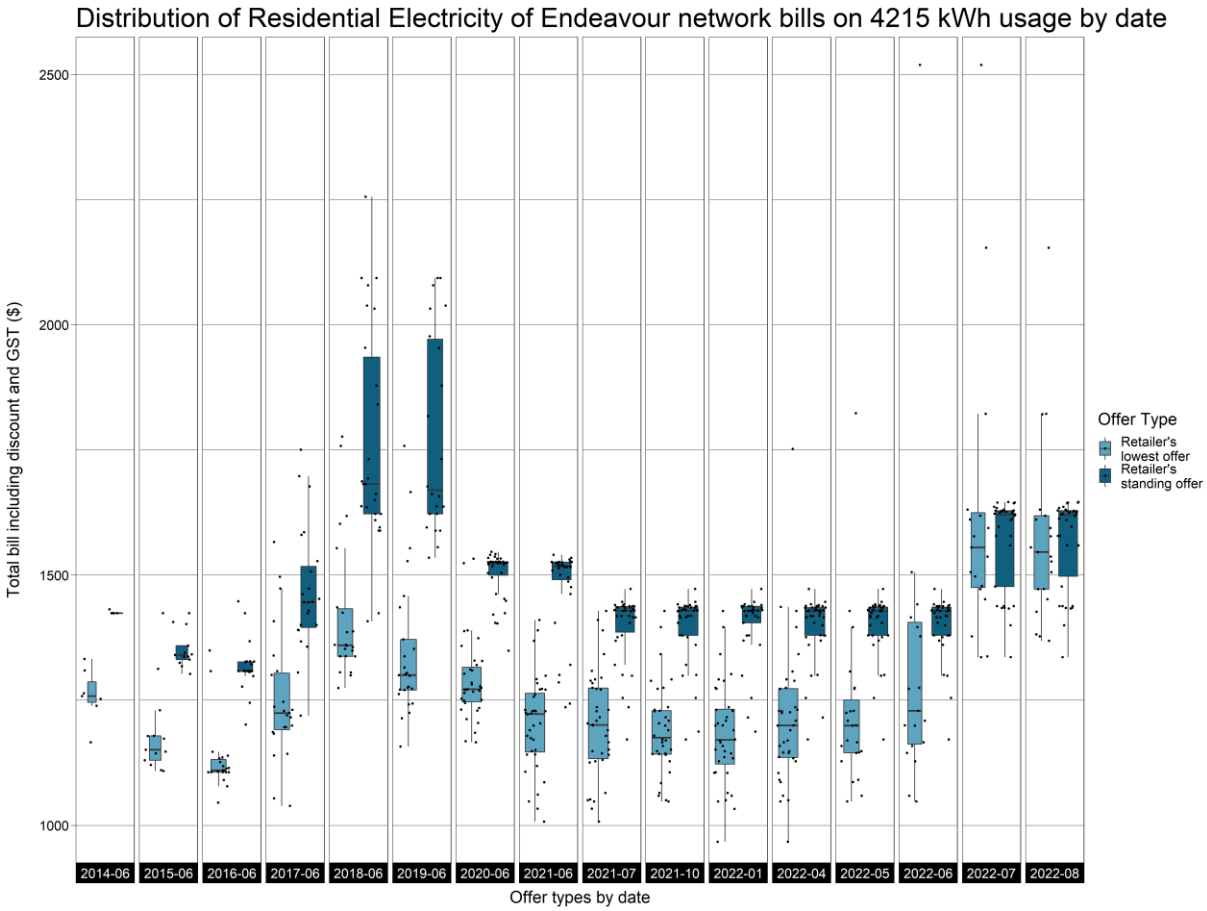
Range of offers in each network area

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 consumption of 4,215 kWh for residential customers, and 20,000 kWh for business customers.

Figure C.1 shows how prices have changed since the introduction of the default market offer, using residential anytime 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.

As noted earlier, in July and August 2022, the median lowest market offer among all retailers increased dramatically which can be seen in Figure C.1

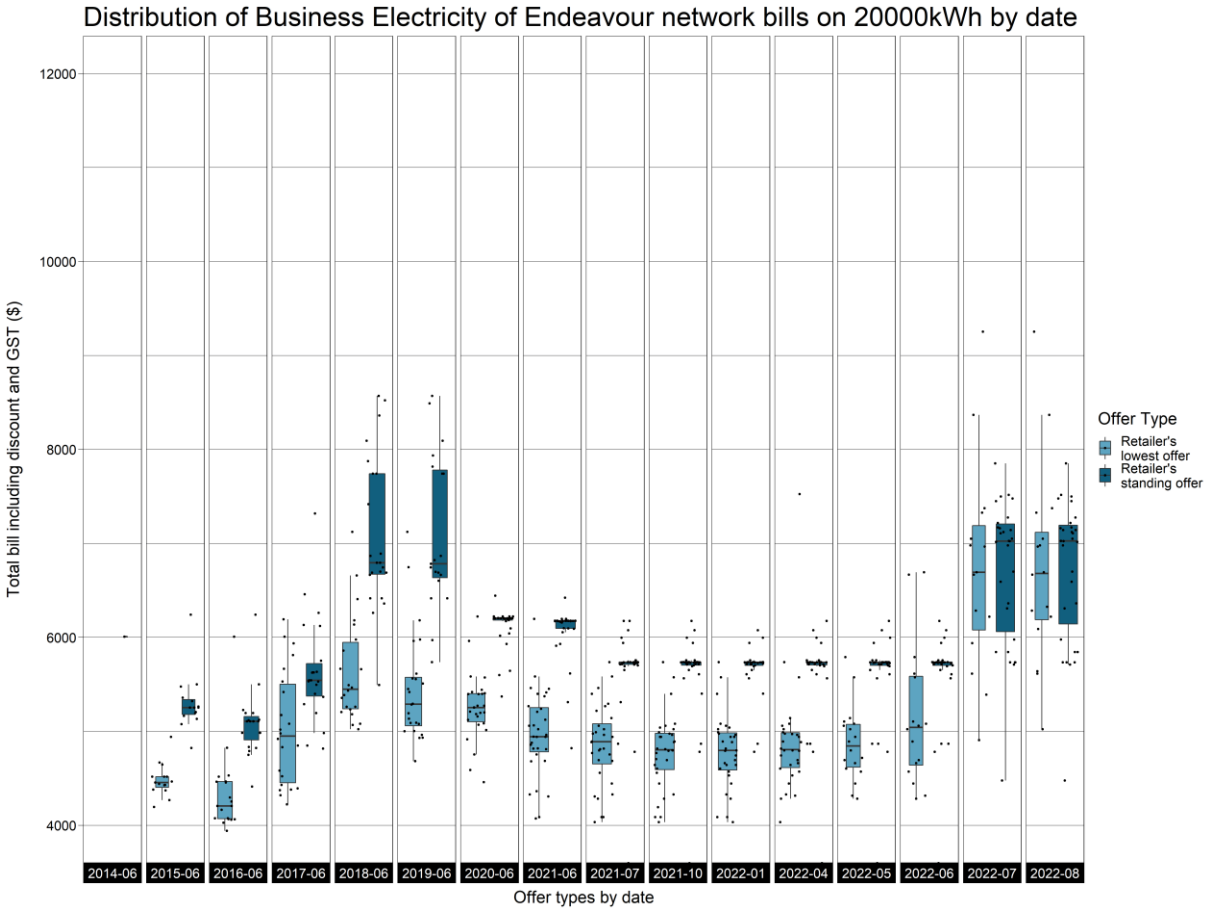
Figure C.1 Distribution of annual residential bills in the Endeavour Energy network – standing offers and lowest market offers



a. Based on 4,215 kWh of residential electricity purchased, including GST, nominal.
b. Anytime offers only.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Figure C.2 Distribution of annual small business bills in the Endeavour Energy network – standing offers and lowest market offers

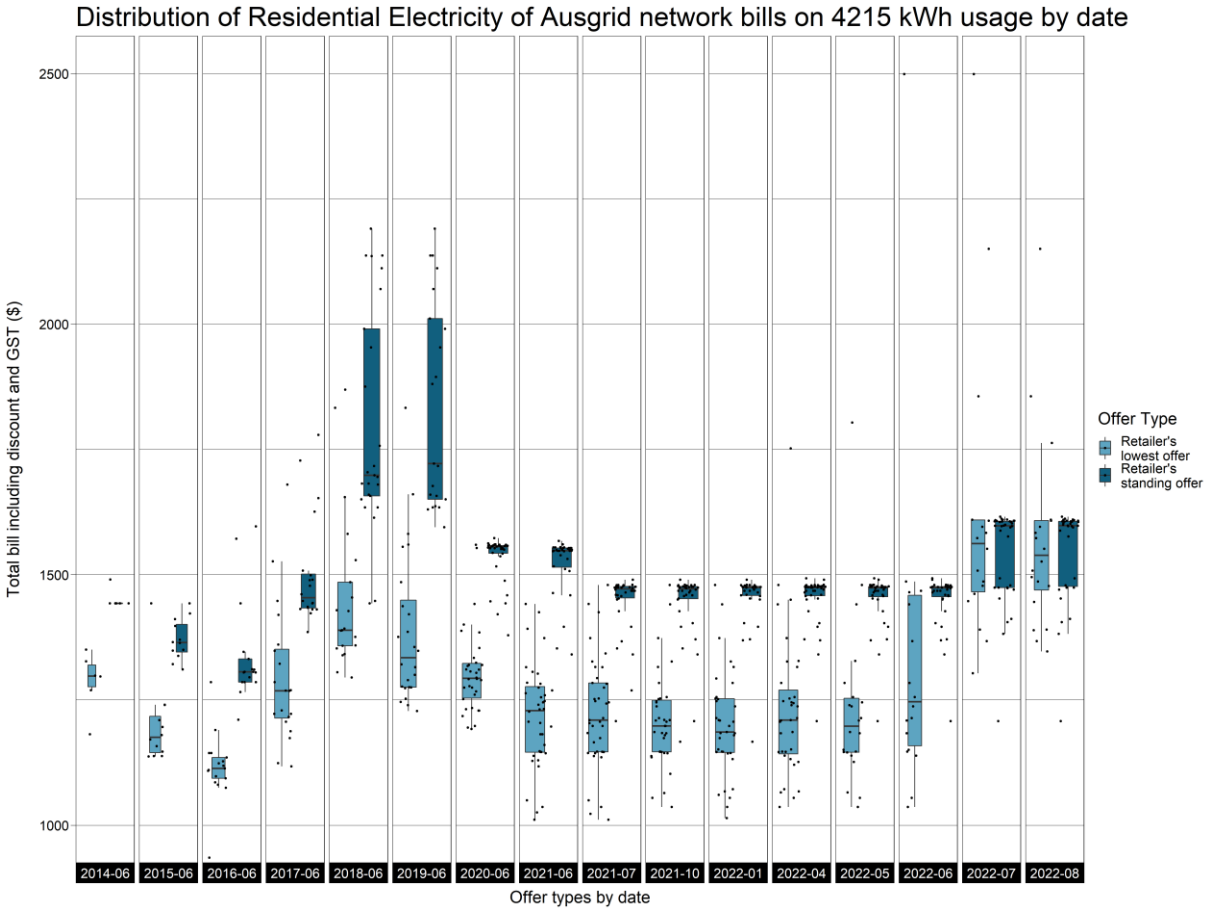


a. Based on 20MWh of residential electricity purchased, including GST, nominal.
b. Anytime offers only.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Figures C.3 to C.4 shows the same charts of the Ausgrid and Essential Energy networks for business and residential customers.

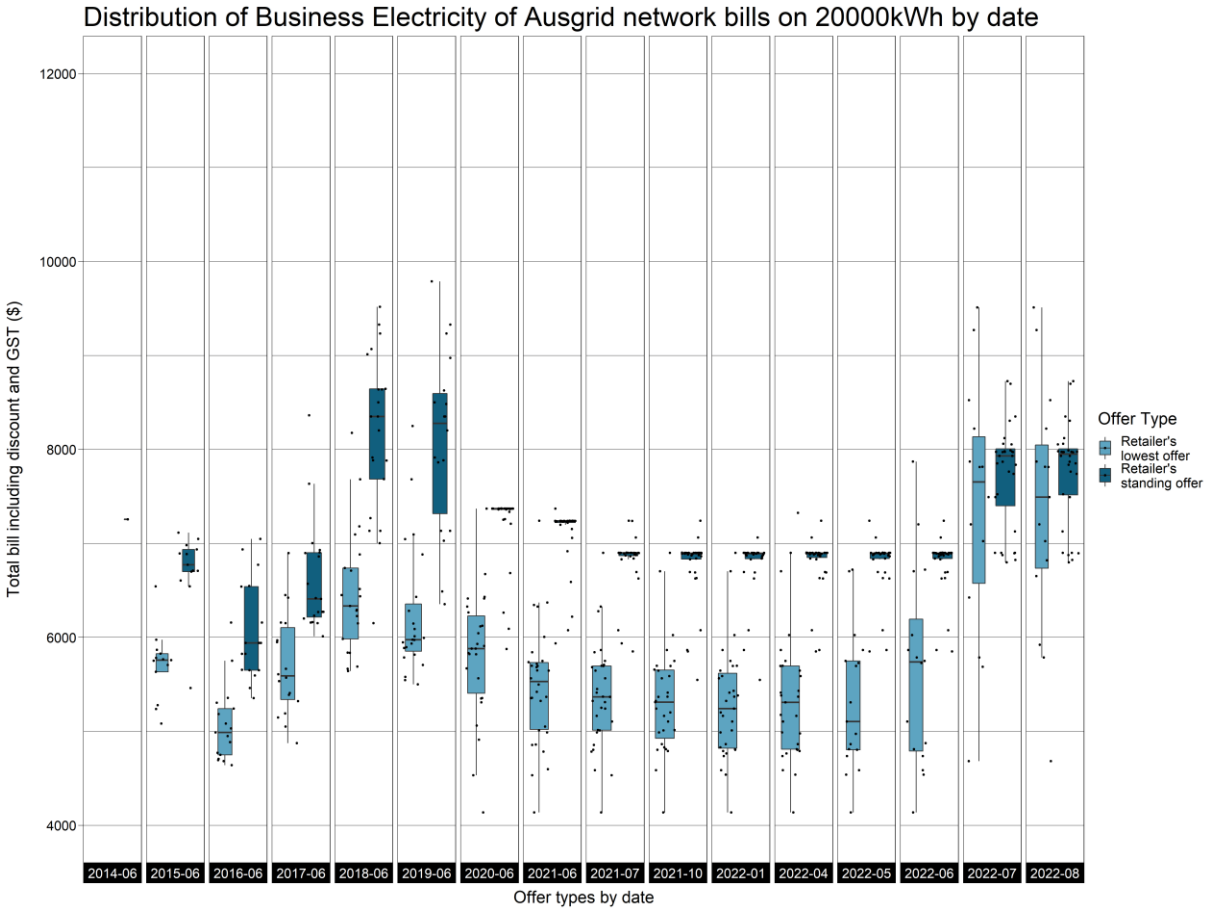
Figure C.3 Distribution of annual residential bills in the Ausgrid network – standing offers and lowest market offers



a. Based on 4,215 kWh of residential electricity purchased, including GST, nominal.
b. Anytime offers only.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

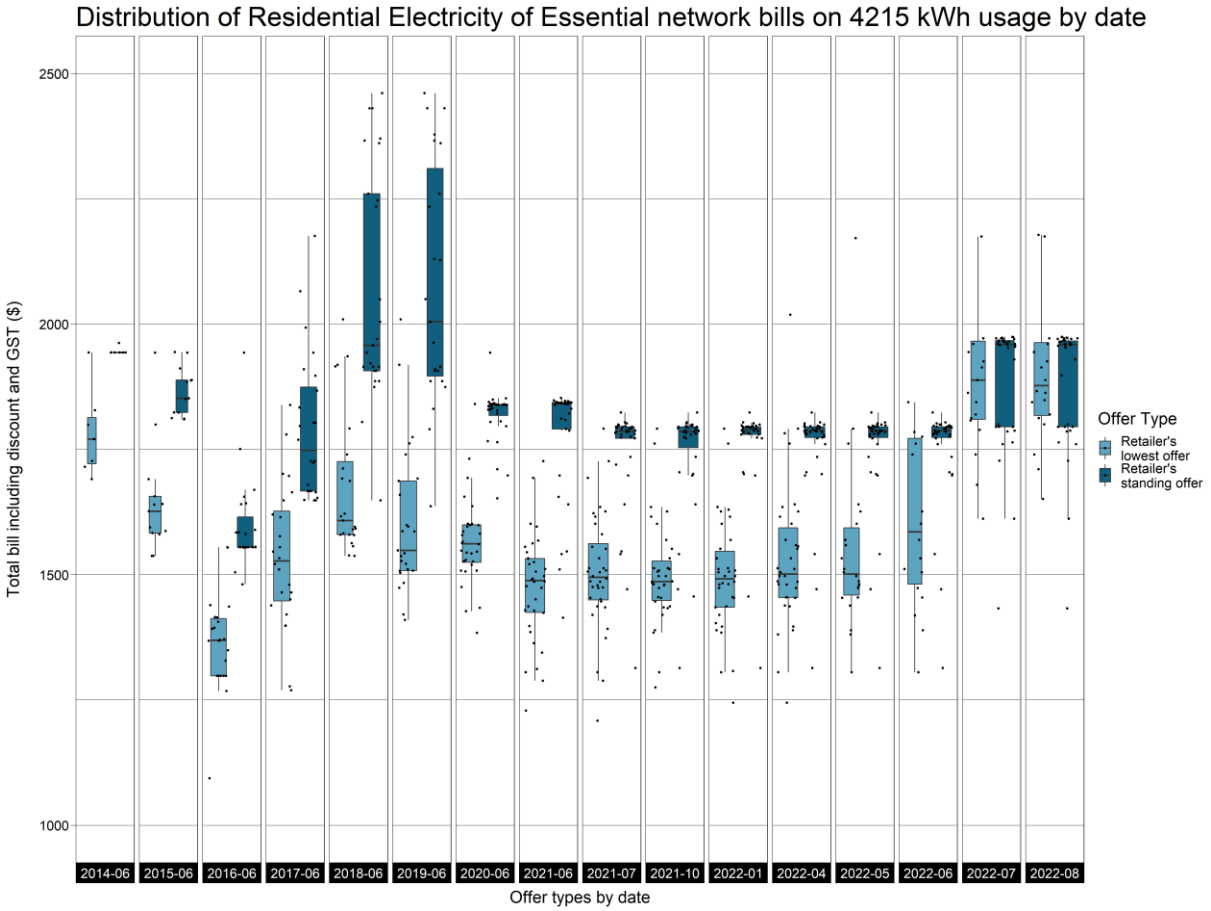
Figure C.4 Distribution of annual small business bills in the Ausgrid network – standing offers and lowest market offers



a. Based on 20MWh of residential electricity purchased, including GST, nominal.
b. Anytime offers only.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

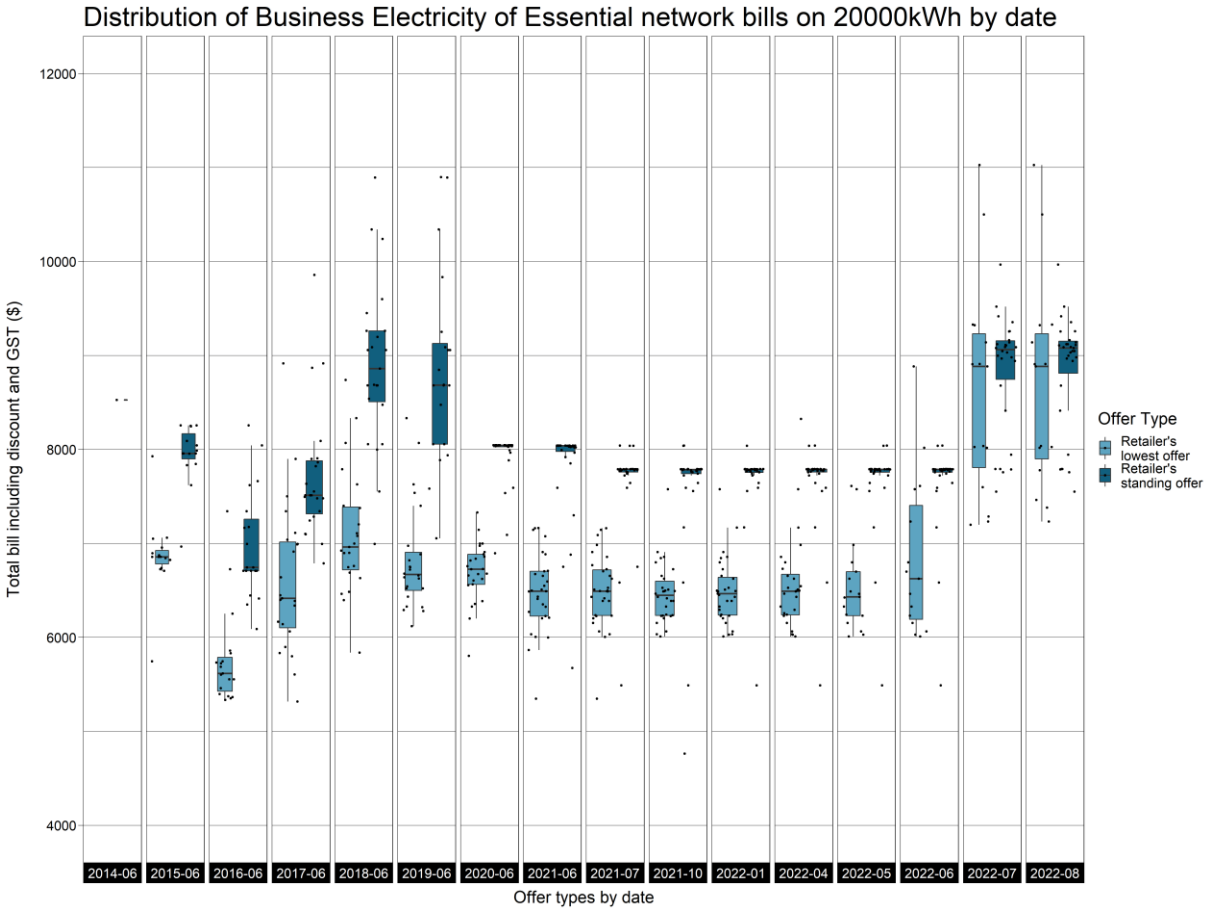
Figure C.5 Distribution of annual residential bills in the Essential Energy network – standing offers and lowest market offers



a. Based on 4,215 kWh of residential electricity purchased, including GST, nominal.
b. Anytime offers only.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Figure C.6 Distribution of annual small business bills in the Essential Energy network – standing offers and lowest market offers



a. Based on 20MWh of residential electricity purchased, including GST, nominal.
b. Anytime offers only.

Source: IPART analysis of data from Energy Made Easy, accessed May-August 2022.

Glossary

5MS	five-minute settlement
ACCC	Australian Competition and Consumer Commission
ACT	Australian Capital Territory
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AGN	Australian Gas Networks
ARENA	Australian Renewable Energy Agency
ASX	Australian Securities Exchange
Big 3	the three largest electricity retailers in NSW (Origin Energy, EnergyAustralia and AGL Energy).
c/day	cents per day
c/kWh	cents per kilowatt hour
CPI	Consumer Price Index
COVID-19	Coronavirus disease 2019
DELWP	Department of Environment, Land, Water and Planning (Victoria)
DER	distributed energy resource
DMO	default market offer
DPE	NSW Department of Planning and Environment
DRSP	demand response service provider
ECA	Energy Consumers Australia
EME	Energy Made Easy
EnergyCo	Energy Corporation of NSW
ESB	Energy Security Board
ESC	Essential Services Commission (Victoria)
ESS	energy savings scheme
EV	electric vehicle
EWON	Energy and Water Ombudsman NSW
GHG	greenhouse gas
GJ	gigajoule
GS	global settlement
GST	goods and services tax
HHI	Herfindahl-Hirschman Index

IPART	Independent Pricing and Regulatory Tribunal
IRP	integrated resource provider
ISP	integrated system plan
JKM	Japan Korea Marker
kWh	kilowatt hour
LNG	liquefied natural gas
MWh	megawatt hour
NECF	National Energy Customer Framework
NEM	National Electricity Market
NERL	National Energy Retail Law
NSW	New South Wales
OECC	NSW Office of Energy and Climate Change
Ofgem	Office of Gas and Electricity Markets (UK)
p.a.	per annum
PDRS	peak demand reduction scheme
PIAC	Public Interest Advocacy Centre
Q1	quarter 1
Q2	quarter 2
Q3	quarter 3
Q4	quarter 4
QLD	Queensland
RERT	reliability and emergency reserve trader
REZ	renewable energy zone
RGT	renewable gas target
RoLR	retailer of last resort
SA	South Australia
SoE	statement of expectations
Spot market	one-off transactions, as distinct from transactions occurring under supply contracts
TOU	time of use
V2G	vehicle-to-grid
V2H	vehicle-to-home
VNI	Victoria – NSW Interconnector

VPP	virtual power plant
WDR	wholesale demand response

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