AUSTRALIAN COMPETITION & CONSUMER COMMISSION

Inquiry into the National Electricity Market

November 2022 Report

23 November 2022

Australian Competition and Consumer Commission
23 Marcus Clarke Street, Canberra, Australian Capital Territory, 2601

© Commonwealth of Australia 2022

This work is copyright. In addition to any use permitted under the *Copyright Act 1968*, all material contained within this work is provided under a Creative Commons Attribution 3.0 Australia licence, with the exception of:

- the Commonwealth Coat of Arms
- the ACCC and AER logos
- any illustration, diagram, photograph or graphic over which the Australian Competition and Consumer Commission does not hold copyright, but which may be part of or contained within this publication.

The details of the relevant licence conditions are available on the Creative Commons website, as is the full legal code for the CC BY 3.0 AU licence.

Requests and inquiries concerning reproduction and rights should be addressed to the Director, Content and Digital Services, ACCC, GPO Box 3131, Canberra ACT 2601.

Important notice

The information in this publication is for general guidance only. It does not constitute legal or other professional advice, and should not be relied on as a statement of the law in any jurisdiction. Because it is intended only as a general guide, it may contain generalisations. You should obtain professional advice if you have any specific concern.

The ACCC has made every reasonable effort to provide current and accurate information, but it does not make any guarantees regarding the accuracy, currency or completeness of that information.

Parties who wish to re-publish or otherwise use the information in this publication must check this information for currency and accuracy prior to publication. This should be done prior to each publication edition, as ACCC guidance and relevant transitional legislation frequently change. Any queries parties have should be addressed to the Director, Content and Digital Services, ACCC, GPO Box 3131, Canberra ACT 2601.

ACCC 11/22_22–67

www.accc.gov.au

Executive summary

This has been a year of significant disruption in Australian electricity markets. Many of the factors driving high and volatile prices are likely to continue. Current conditions reflect expected challenges, including coal plant closures and more frequent unplanned outages, compounded by unexpected difficulties such as high international gas and coal prices.

High spot prices across the National Electricity Market led to the Australian Energy Market Operator (AEMO) capping prices at $300/MWh in Queensland, New South Wales, South Australia, and Victoria between 12 and 14 June 2022. This resulted in some generators withdrawing capacity from the market, prompting AEMO to direct generators to produce electricity. On 15 June 2022, AEMO decided to suspend the National Electricity Market to ensure a reliable supply of electricity. Conditions eased as some large generators returned to service and the suspension was lifted on 24 June 2022.

In the following months, wholesale spot market prices declined slightly, although they still remain high relative to historical averages. Contract prices in financial markets indicate that high and volatile prices are expected to persist for multiple years. Retail electricity prices have increased in response, as retailers seek to recover high wholesale electricity costs from consumers. Households and businesses are already experiencing substantially higher electricity bills and there are signs prices will continue to increase.

As part of the Australian Competition and Consumer Commission's (ACCC) Inquiry into the National Electricity Market, we have examined the impact of the June 2022 events and resulting market conditions on competition in the financial and retail electricity markets, and consequent impacts on consumers.[1]

Obtaining insight into opaque market operations

To inform our analysis in this report, we used our compulsory information gathering powers to obtain commercially sensitive data from market participants (that is, generators and retailers) on their electricity hedging contracts. This data is not usually collected, analysed, or reported by any other regulatory agency. Many hedging contracts are traded 'over-the-counter' with the transaction kept confidential by the buyer and seller. We also required market participants to explain their approach to managing price risk in the spot market and describe their experience trading hedging contracts in 2022.

Our compulsory information gathering powers also enabled us to extend our unique dataset on the costs incurred by retailers to supply electricity to households and businesses across the National Electricity Market. This 'cost stack' includes retail margins and wholesale, network, environmental, and retail costs. Our annual reporting of these figures provides the context against which we can accurately assess the more intense developments of June 2022 and the following months.

The importance of competition in financial markets and retail markets

Maintaining and developing competition in electricity markets throughout the transition to renewable energy is of paramount importance. Well-functioning competitive markets are critical to delivering the investment needed for new electricity generation and storage capacity at an efficient cost to consumers.

---

[1] On 6 June 2022, the Treasurer, the Hon Dr Jim Chalmers MP, outlined the ACCC's role in ensuring that the factors influencing electricity prices are made fully transparent. The Treasurer asked the ACCC to advise the government of any regulatory changes needed to ensure electricity markets are functioning properly. This request complements the Terms of Reference for the ACCC's current inquiry into the National Electricity Market.

The energy-only structure of the National Electricity Market is designed to allow for temporary price volatility to incentivise new investment and innovation through a market response. However, we recognise that the market is in transition, and that government is currently considering changes to the market design to support a smoother transition.

To maintain and promote competition during periods of temporary price volatility, it is essential that market participants can appropriately manage financial risks. Our analysis indicates that retailers are finding it increasingly difficult to manage their exposure to prices in a volatile spot market. This, in turn, increases the likelihood of retailer failure, declining competition, and higher bills for consumers.

Preserving competition in retail markets is the best way to deliver benefits to households and businesses over the longer term. We recognise the urgency of immediate concerns around energy affordability impacting consumers. However, even where short term interventions are warranted, it is still crucial to preserve the conditions for future retail competition.

Managing risk is increasingly challenging

Access to exchange-traded and over-the-counter hedging contracts is critical to allow electricity retailers and generators to manage their exposure to price and volume risk.

Retailers typically sell electricity to consumers at an agreed price that must be met even if the price in the spot market rises dramatically. Inversely, generators may not receive a return on their investment or even operate at a loss if wholesale electricity prices fall. Hedging contracts allow retailers and generators to, in effect, lock in a contracted price for a given or variable volume of electricity in advance.

The expectation in financial markets that relatively high and volatile spot prices will persist has led to steep increases in contract prices. High contract prices have increased the credit support or ‘margins’ required from market participants, impacting retailers, generators and the brokers and clearing participants that facilitate trades. Some clearing participants have responded by reducing their exposure to electricity contracts on the Australian Securities Exchange (ASX); for instance, by closing out existing positions or not taking on new clients.

The result is that a number of smaller retailers have lost access to exchange-traded contracts in 2022. This means that they must rely on over-the-counter hedging contracts to manage their risk and are more likely to be exposed to high and volatile wholesale electricity spot prices, threatening their financial viability. Further, our analysis reveals that prices in the over-the-counter market were notably higher than on the ASX from quarter 2 2022 onwards, putting retailers without ASX access at a disadvantage.

We consider that promoting access to, and liquidity in, financial markets is essential to maintaining competition in the wholesale and retail electricity markets.

Active monitoring of liquidity in financial markets is needed

While exchange-traded contract volumes and prices are reported regularly and publicly, there is little visibility of activity in the over-the-counter market. As smaller retailers become increasingly reliant on over-the-counter hedging contracts, improving transparency in the over-the-counter market will be essential. As our analysis has shown, monitoring hedging contracts provides crucial insights into the strength and resilience of both generators and retailers.

The ACCC supports the proposed reforms to expand the scope of the Australian Energy Regulator’s wholesale market monitoring and reporting functions to include monitoring hedging contracts.

In addition, we consider that a range of issues affecting the contracts market may warrant further monitoring. For example, ASX margin requirements and collateral requirements for over-the-counter contracts, the changing role of FEX Global, and whether the current market dynamics we have observed are sustained through 2023, are all issues that merit further examination. We have broad-ranging monitoring powers under this inquiry, and we can use these powers to undertake further investigations as we see necessary or to complement any expanded monitoring roles the Australian Energy Regulator may have in future.

Retail competition has benefited consumers

Competition in retail markets is essential for ensuring consumers' best interests are supported and promoted. Over the last decade, retail competition has increased as new retailers have entered the market and won market share away from incumbent retailers. The threat smaller retailers pose improves value for consumers and incentivises product innovation. That said, the big 3 retailers (AGL, EnergyAustralia and Origin) retain substantial market share and continue to have significant cost advantages over smaller retailers.

Our cost stack data shows that average retail margins for residential customers across the National Electricity Market continued to decline in 2021–22 from their peak in 2016–17. Retail costs for residential customers also declined 4% (after adjusting for inflation) from 2020–21 to 2021–22.

These trends in retail margins and retail costs are consistent with the expected effects of increased retail competition, benefitting Australian households and businesses. As retailers become more efficient in a competitive market, lower costs are passed through to customers as lower electricity bills.

The cost stack data paints a positive picture of retail competition across the 2021–22 financial year, but this should not obscure the magnitude of the June 2022 events and related changes in retail markets.

However, retail competition is now under pressure

High and volatile wholesale electricity spot prices, coupled with high contract prices, reduced access to hedging contracts, impending compensation payments and retail price caps are impacting the financial viability of retailers. While retail prices have increased, retailers have limited ability to pass through increased costs in the short term, increasing their liquidity risk.

Since May 2022, 6 retailers have exited the market through the retailer of last resort scheme, while other retailers have actively encouraged their customers to switch to another retailer. Additionally, several retailers are no longer seeking new market offer customers.

The result is consumers moving from small and very small retailers towards retailers with larger market share, increasing market concentration.

Price caps limit retailers' ability to pass through cost increases

The price cap on standing offers, or Default Market Offer, in New South Wales, South East Queensland and South Australia is set annually at a level intended to protect disengaged consumers from paying too much for electricity while retaining incentives for them to engage in the market and find a better offer.

Until recently, the savings for customers prepared to shop around for a better offer could be quite significant, with most retailers' market offers being significantly cheaper than the Default Market Offer. However, by October 2022, most market offers were priced close to standing offers with some more expensive than the regulated price.

In particular, the range of offers for non-big 3 retailers have reduced. Previously, smaller retailers often offered plans that were much cheaper than the relevant standing offer. The June 2022 events saw an immediate and dramatic increase in their market offer prices, converging back towards the Default Market Offer level. Offers from big 3 retailers also moved towards the price of the standing offer, but to a lesser extent, shifting the balance of offers between larger and smaller retailers.

While standing offer customers are being protected from more significant price increases in the short term, price caps on standing offers are limiting retailers' ability to increase prices as underlying costs change, adding to financial pressures on retailers. There is currently no mechanism to change the Default Market Offer during a financial year, as there is for the Victorian Default Offer.

Introducing a mechanism to adjust the Default Market Offer outside of the annual price review process will allow the AER to better manage future market disruptions. The AER should be able to reduce price caps when costs significantly decrease, protecting standing offer customers, and to increase price caps when costs rise significantly, allowing retailers to better manage cash flow, costs, and revenue.

Regulated retail prices should accurately reflect risk management costs

Regulated retail pricing affects the ability of retailers to recover their costs and remain financially viable. It is important that regulated pricing reflects the actual costs of operating in the market, including the costs of managing price risk.

Our analysis indicates that these costs have increased in 2022 due to a shift toward over-the-counter contracts, which have generally traded at a premium to exchange-traded contracts. Retailers have also faced cost pressures from increased credit support requirements.

The AER should consider these findings in its review of the Default Market Offer wholesale cost methodology, and the Essential Services Commission should do so in any future reviews of the Victorian Default Offer, to ensure that regulated retail prices reflect retailers' hedging costs in prevailing market conditions.

Consumers are feeling the pressure of rising prices

High and volatile wholesale electricity prices have increased retailers' costs to supply electricity to their customers. Increased costs are already flowing through to electricity bills.

Compared with last year, standing offer customers in New South Wales, South East Queensland and South Australia faced price increases of between 7.2% and 18.3% from 1 July 2022.[2] Standing offer customers in Victoria faced increases of between 1.2% and 9.2% when the revised Victorian Default Offer took effect.[3]

Market offer prices, which are set by retailers and traditionally cheaper than standing offers, have also increased. Our analysis shows that increases in market offer prices between April 2022 and October 2022 have already resulted in the median annual bill of a typical residential customer increasing by around $300 per year, or 23%, and there are signs this will increase further.

Although better deals might be harder to find at the moment, we encourage consumers to consider how much they are currently paying for their electricity and to shop around for an

---

[2] Australian Energy Regulator, *Default market offer prices 2022–23 – Final determination*, Commonwealth of Australia, 26 May 2022, p 3.

[3] Essential Services Commission, *Victorian Default Offer 2022–23: Final decision*, 24 May 2022, p 1.

offer that might be cheaper. There are an increasing range of initiatives designed to make it easier for consumers to navigate this complex market.

Consumers can visit a government comparison website to compare generally available offers and, using their own usage data, find the cheapest offer. Commercial third-party comparison services may help some consumers, but the ACCC remains concerned that they do not necessarily compare all offers from all retailers nor recommend the cheapest offer. We recommend that a mandatory code of conduct should apply to third-party comparison services to ensure they are required to operate fairly and transparently and that they provide consumers with all the necessary and important information they need to choose an offer. The introduction of a mandatory code will also complement the recent expansion of the Consumer Data Right to the energy sector.

We are also concerned that customers in embedded networks do not have the same ability to shop around and choose their retailer as do other customers, nor do they receive the price protection of a default offer, outside of Victoria. We recommend the Default Market Offer price cap should apply to retailers' prices for embedded network customers to offer them protection against high prices from the only retailer available to them.

Energy is essential to people's lives and wellbeing and the extent to which households can reduce their bills is limited. Many households in Australia already experience trouble paying for the electricity they need to maintain their health and wellbeing. With prices expected to remain high, governments and regulators need to ensure policy and regulatory settings around energy affordability continue to evolve to better protect consumers.

Recommendations

We make 5 recommendations to address the impact of current conditions on competition in financial and retail electricity markets as well as the impacts on customers.

Recommendation 1

The Australian Energy Regulator should monitor contracts market trading by registered National Electricity Market participants as part of its wholesale monitoring functions

There is a process currently underway to expand the AER's wholesale monitoring function to include the contracts market. The contracts market is an important link between generators and retailers. As our analysis shows, it can provide crucial insight into the strength and resilience of generators and retailers.

The current policy process should result in the AER receiving the power and appropriate funding to monitor the contracts market to ensure it functions effectively, protects competition, and provides risk management options to smaller, non-vertically integrated retailers. The increased scope should apply to monitoring and analysis of contracts market trading by registered National Electricity Market participants, including over-the-counter trading. The AER should report on key issues, but only disclose commercially sensitive information when there is a material public benefit in public reporting.

Recommendation 2

Regulated retail price setting should accurately reflect hedging costs

Our analysis indicates that the costs of hedging have changed for many retailers over the course of 2022. In particular, hedging costs have been pushed up due to:

- the shift in contracting away from the ASX and towards over-the-counter contracts by some retailers, and over-the-counter swap contracts, in general, trading at a premium to ASX swap contracts in 2022
- the significantly increased cost of margining and collateral for most retailers, particularly for ASX trading.

The AER is currently undertaking a review of the Default Market Offer wholesale cost methodology as part of its consideration of the 2023–24 Default Market Offer. The ACCC recommends that the AER take the analysis and findings of this report into account when revising the wholesale cost methodology, to ensure the methodology and 2023–24 regulated retail prices reflect hedging costs in current market conditions. Current market conditions appear to be significantly different for many retailers than for previous Default Market Offer cycles.

The ACCC also recommends that the Essential Services Commission take the findings of this report into account for any future reviews of its Victorian Default Offer methodology.

Recommendation 3

The Electricity Retail Code should be amended to provide the Australian Energy Regulator the option to adjust the Default Market Offer determination outside of the annual price setting cycle in the event of uncertain or unforeseen circumstances

Current policy settings limiting the Default Market Offer to annual price resets are resulting in insufficient flexibility The AER should be able to reduce the Default Market Offer when costs significantly decrease and to increase the Default Market Offer when costs significantly rise. Doing so will give the AER the flexibility to protect standing offer customers and support retailers in periods of rapidly changing market conditions in order to maintain retail competition for the long-term benefit of consumers.

Recommendation 4

A mandatory industry code of conduct should apply to third-party energy price comparison services

Unlike government price comparison services, third-party price comparison services may not compare offers from all retailers in the market nor necessarily recommend the cheapest offer. Prescribing a mandatory code of conduct would ensure that price comparison services are required to operate fairly and transparently and that they provide consumers with all the necessary and important information they need to choose an offer. The introduction of a mandatory code will also complement the recent expansion of the Consumer Data Right to the energy sector.

Recommendation 5

The Electricity Retail Code should be amended to apply the Default Market Offer price cap to authorised retailers' prices for embedded network customers

Embedded network customers of authorised retailers are expressly excluded from the protections of the Electricity Retail Code, which applies to authorised retailers in South East Queensland, New South Wales, and South Australia. The Code should be amended to provide embedded network customers in these regions with equivalent price cap protections as embedded network customers in Victoria and the Australian Capital Territory.

Contents

Executive summary ... 1

Recommendations ... 6

1. Introduction ... 9

2. Competition in a volatile wholesale electricity spot market ... 12

   2.1. Domestic and international conditions led to extraordinary market dynamics in the first half of 2022 ... 12

   2.2. The energy transition presents opportunities and risks for competition in the wholesale electricity market ... 20

3. Electricity hedging contracts market ... 29

   3.1. A liquid contracts market underlines a competitive wholesale electricity market ... 29

   3.2. Key findings ... 39

   3.3. Policy and competition implications ... 63

4. Competitive retail markets have delivered consumer benefits over the last decade ... 66

   4.1. The retail market has become increasingly competitive ... 66

   4.2. Increasing competition has driven down retail costs and margins ... 72

5. Recent electricity market conditions and settings have put pressure on retailers ... 77

   5.1. Raised and volatile wholesale prices are increasing the cost to supply electricity ... 78

   5.2. Our contracts market analysis reveals challenges for retailers ... 78

   5.3. Upcoming compensation payments will add to retailers' costs ... 79

   5.4. Capped retail prices limit retailers' ability to pass cost increases ... 82

   5.5. Recent retailer exits have consolidated the market and reduced consumer choice ... 84

   5.6. Retail prices have increased ... 92

   5.7. Amending policy settings will help maintain competition ... 94

6. Consumers are feeling the pressure of rising prices ... 96

   6.1. Households should shop around for a better offer ... 97

   6.2. Managing rising electricity prices by reducing consumption ... 103

   6.3. Protections for payment difficulties must be provided and enforced ... 105

Appendix A: Terms of reference for the inquiry ... 108

Appendix B: Methodology for cost stack and retail offer data collection and analysis ... 109

Appendix C: Further retail analysis ... 112

Appendix D: Data appendix (downloadable Excel spreadsheet)

1. Introduction

The Australian Competition and Consumer Commission (ACCC) is continuing its inquiry into the prices, profits, and margins in the supply of electricity in the National Electricity Market.

In this report, we examine the impact of current market conditions on competition in the retail, wholesale, and financial electricity markets, and consequent impacts on consumers, in response to the suspension of the National Electricity Market in June 2022 and concerns about cost-of-living pressures.

Drawing on extensive information obtained from electricity market participants using our powers under the *Competition and Consumer Act 2010*, we have been able to examine in detail the causes and impacts of these events and to make recommendations about measures that could be implemented to ensure competition remains effective through the supply chain.

In addition to our broader roles under the Competition and Consumer Act and the reporting requirements of our current inquiry, the government has asked us to take an active role in monitoring and reporting on current energy market conditions, which we continue to do.

1.1. The ACCC's general role in energy markets

Regulators and governments all have a role to play in ensuring safe, reliable, and affordable energy for Australian energy customers.

The ACCC's role in energy markets is in the context of the Competition and Consumer Act, which includes specific provisions designed to prevent energy market misconduct (Part XICA), and to ensure compliance with the price cap on standing offers and fair advertising of prices to consumers through the Competition and Consumer (Industry Code – Electricity Retail) Regulations 2019 (Electricity Retail Code).

The Competition and Consumer Act provides a framework for the ACCC to monitor and take action to preserve conditions for competition, where they can be preserved, and to ensure market participants, including consumers, are treated fairly.

1.2. The ACCC's electricity market inquiry and this report

This report is delivered as part of our electricity market monitoring inquiry. The Australian Government directed us to undertake this inquiry in 2018, with a requirement to report at least every 6 months until the conclusion of the inquiry on 31 August 2025. The terms of reference for the inquiry are at Appendix A.

In recent years, we have adopted a cycle of reporting on billing outcomes for households and small business customers in May of each year, and retailers' costs in supplying electricity to customers (or 'cost stacks') information in November each year.

We saw a significant change in the market after completing our May 2022 report. As a result, we published an addendum to that report in June 2022, which included supplementary analysis to acknowledge the changing conditions in spot, contract, and retail markets.

Given the significance of this year's energy market events, this report covers a significantly wider scope of analysis than our usual November cost stack reports. However, 2021–22 cost stack data is reflected through this report and published in detail in an online appendix (Appendix D).

1.3. About the data we collect

We used a range of data sources for this report. Of most importance are our compulsory information gathering powers under section 95ZK of the Competition and Consumer Act which allow us to obtain information from market participants that may not otherwise be publicly available.

To examine the wholesale spot market dynamics, we have drawn mostly on data and insights shared with us from third parties, including the Australian Energy Regulator's (AER) Wholesale Electricity Market Performance Reporting process and the Australian Energy Market Operator's (AEMO) analysis of the drivers of the June 2022 market suspension event.

To examine the contracts market, we have relied on our compulsory information gathering powers to obtain quantitative and qualitative information from generators and retailers in relation to their trading of both Australian Securities Exchange (ASX) and over-the-counter (OTC) contracts. We have supplemented this with publicly available data, including for the pricing and liquidity of ASX-traded electricity contracts.

For the cost stack analysis, we have used our compulsory information gathering powers to obtain data on retailers' costs for the period 1 July 2021 to 30 June 2022. We issued notices to a sample of retailers covering approximately 86% of the residential customer base in the National Electricity Market. We required them to report a variety of cost categories covering network, wholesale, environmental and retail costs, and retail margins.

For the retail offer analysis, we have used publicly available offer information taken from the 2 government comparator websites, Energy Made Easy (run by the AER) and Victorian Energy Compare (run by Victoria's Essential Services Commission). All retailers must upload the particular details of their electricity offers for residential and small business customers to these sites.

There is a separate methodology appendix (Appendix B) which provides more detail on our data collection and analysis techniques for the cost stack and retail offer datasets. The separate data appendix (Appendix D) includes many charts and tables not presented in the body of the report, including regional breakdowns and longer time series.

1.4. The geographic scope of our analysis

The National Electricity Market comprises New South Wales, the Australian Capital Territory (ACT), Queensland, South Australia, Victoria, and Tasmania. We examine the performance of the spot and contracts markets in each of these states and territories. However, as there is one regional reference node for both the ACT and New South Wales, the ACT is included in our analysis of New South Wales market dynamics.[4] Similarly, our cost stack analysis also combines the ACT and New South Wales into one category.

We separately report Tasmania in our regional cost stack analysis, with some minor modifications to the reporting basis to protect individual retailer data in this state. In addition, there is virtually no contracts market trading in Tasmania due to the dominance of vertically and horizontally-integrated, government-owned generators in that state. For example, no ASX contracts are available for Tasmania. As such, our analysis of Tasmania's wholesale electricity market is largely limited to the spot market.

For retail offer analysis, we focus on the regions with effective retail competition – Victoria, New South Wales, South Australia, and South East Queensland.

[4] The regional reference node is the basis for pricing in wholesale spot and contracts markets. Effectively, the ACT and New South Wales are one region for pricing purposes.

1.5. Structure of this report

The body of the report is structured as follows:

- Chapter 2 focuses on the **wholesale spot market**
- Chapter 3 focuses on the **contract (financial) market**
- Chapters 4 and 5 focus on **retail markets**
- Chapter 6 focuses on **retail affordability.**

2. Competition in a volatile wholesale electricity spot market

Key points

- Understanding market dynamics in the National Electricity Market in the first half of 2022 is essential context for the contracts market analysis in Chapter 3 of this report, and for our assessment of retail competition and the impacts on affordability in chapters 4–6.
- The extraordinary energy market dynamics in the first half of 2022 were caused by a range of factors such as inflated input fuel prices and low generator availability.
- This resulted in increased wholesale spot prices and price volatility which culminated in the Australian Energy Market Operator (AEMO) triggering a rare 9-day market suspension in all 5 National Electricity Market regions in June 2022.
- Wholesale spot prices are forecast to remain elevated in the short-medium term due to input fuel prices, amongst other factors.
- The energy transition will see a significant shift in generation capacity and presents an opportunity for, as well as risks to, competition as new assets enter the market.

This chapter provides an overview of the energy market dynamics of the first half of 2022 and the June 2022 energy event, where wholesale electricity prices were elevated relative to historical averages and AEMO suspended all regions of the National Electricity Market. This outline provides context for the following chapter of this report based on a preliminary review of existing analysis undertaken by the energy market bodies, to date.

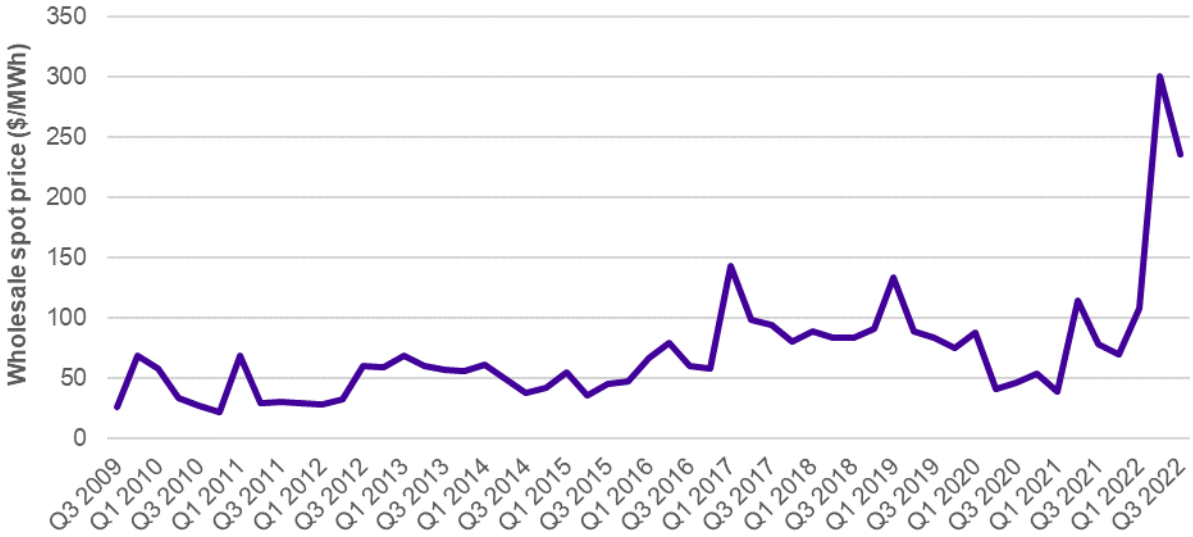
2.1. Domestic and international conditions led to extraordinary market dynamics in the first half of 2022

2.1.1. Market suspension in the National Electricity Market is exceedingly rare

Over the first half of 2022, several conditions in international and domestic energy markets drove wholesale electricity prices upwards and led to challenges in operating the National Electricity Market. Average wholesale spot prices in the National Electricity Market during the second quarter of 2022 were at their highest levels since the National Electricity Market was established (see Figure 2.1). These price conditions and the subsequent operational challenges, discussed in more detail below, ultimately culminated in the 9-day suspension of the market during June 2022. Suspension of the National Electricity Market is exceedingly rare. The National Electricity Market has been suspended on only one other occasion since its inception in 1998: due to a critical information technology issue, the National Electricity Market was suspended in 2001 for 2 hours.

Figure 2.1: Wholesale spot prices during quarter 2 2022 were at their highest levels

NEM-wide quarterly-averaged spot prices since 2009–10



Source: AEMO, Australian PV Institute, Bureau of Meteorology, OpenNEM - Energy - NEM, OpenNEM website, 2022, accessed 8 November 2022.

Note: Wholesale spot prices were at their highest quarterly average spot price since market commencement in 1998, as further shown by figure 8 in AEMO's Quarterly Energy Dynamics Q2 2022 report. NEM = National Electricity Market.

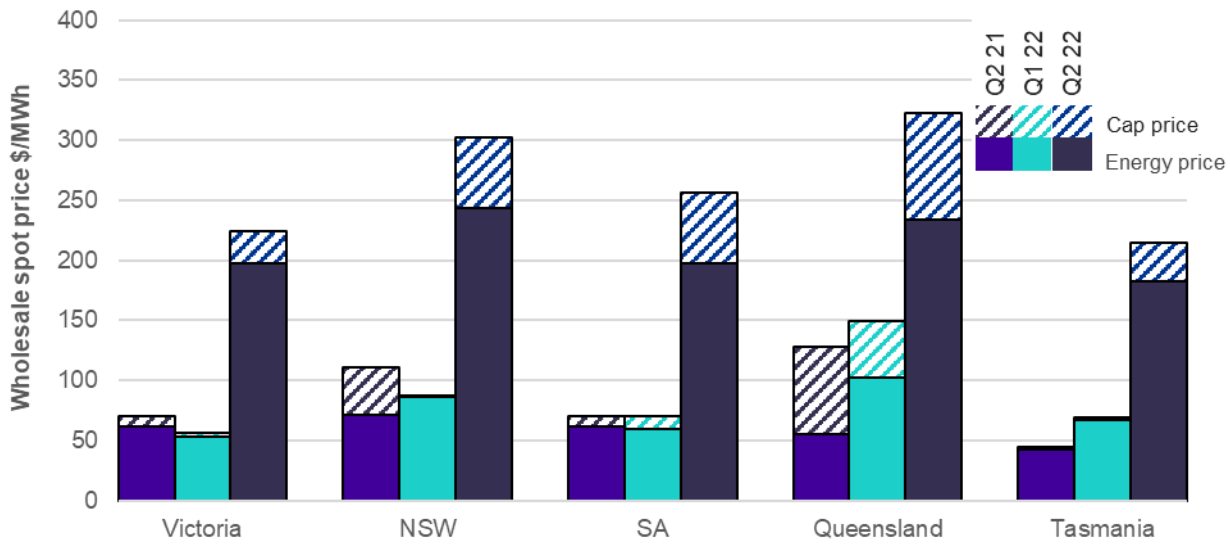
Key conditions which contributed to the unprecedented June 2022 energy event include:

- high gas prices
- high coal prices
- high operational demand
- generator unavailability.

The confluence of these factors – high input fuel prices, high demand, and constrained supply – drove increases in both the level and volatility of wholesale spot prices (see Figure 2.2).

Figure 2.2: Increases in the level and volatility of wholesale electricity spot prices

Average wholesale electricity spot prices by region, split by <$300/MWh prices ('energy price') and >$300/MWh prices ('cap price'), Q2 2021, Q1 and Q2 2022



Source: AEMO, *Quarterly Energy Dynamics Q2 2022*, AEMO, 29 July 2022, accessed 8 November 2022, figure 10.
Notes: The contribution of 'volatility' to average spot prices is in this charge presented as the contribution of prices above $300/MWh to average prices in each quarter. Prices above $300/MWh (or 'cap prices') typically capture periods where the market is very volatile and prices are high. Prices below $300/MWh (or 'energy prices') typically represent prices that reflect the cost of supplying energy.

Another measure of spot price volatility which better reflects the intensity of price spikes is a change in the distribution of spot prices in increments between $300–1,000/MWh and over $1,000/MWh. The frequency of spot prices exceeding $300/MWh climbed from just 1% of intervals in the second quarter of 2021 to 26% in the same quarter of 2022.

Historically, generator returns on spot prices above $300/MWh have predominantly come from extreme price spikes above $1,000/MWh. However, the second quarter of 2022 saw a high proportion of overall returns from prices between $300/MWh and $1,000/MWh (see Figure 2.3). This indicates extended high spot prices were the main driver of higher average prices, rather than extreme price spikes.

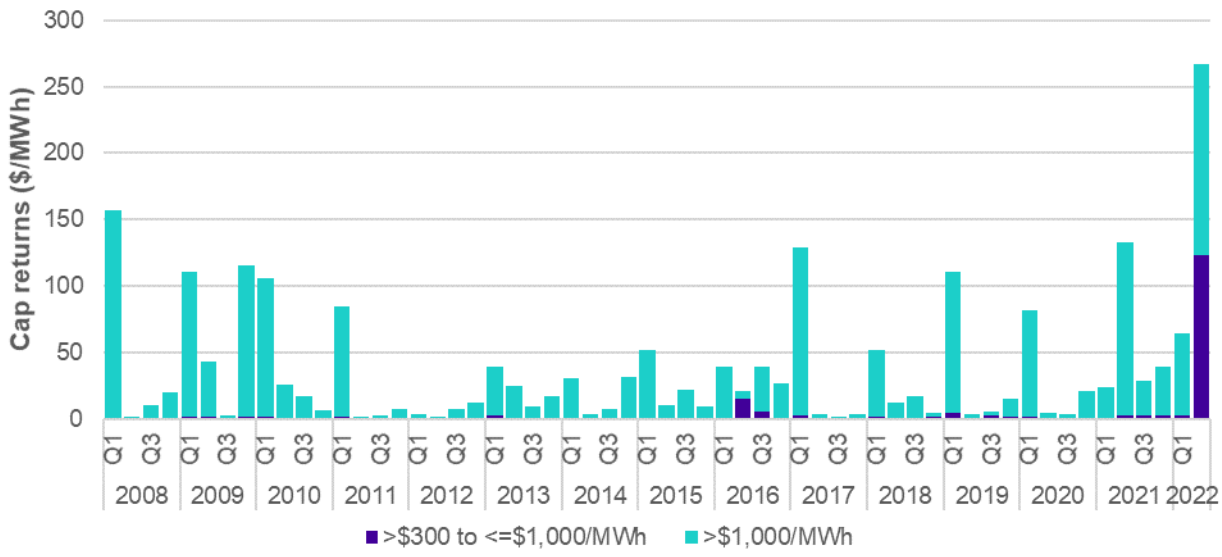
As a result of these extended high prices, the cumulative price threshold was breached in most of the National Electricity Market regions, reflecting that the prices were sustained at high enough levels over a 7-day period to exceed the regulated threshold.[5] This resulted in the automatic application of the administered price cap in successive mainland National Electricity Market regions (see Figure 2.4), which saw market prices immediately capped at $300/MWh.[6]

[5] The cumulative price threshold mitigates the risk of extended periods of high wholesale electricity prices. It is the maximum cumulative price permissible across 7 days' worth of trade in the wholesale electricity spot market. For the period 1 July 2022 to 30 June 2023, the cumulative price threshold in the National Electricity Market is $1,398,100. The wholesale gas market also has a cumulative price threshold, which was set at $440 for 2022–23.

[6] The administered price cap mitigates the risk of high wholesale electricity prices and is applied automatically when the cumulative price threshold is breached. The administered price cap in the National Electricity Market is $300 per megawatt hour. The level of the administered price cap is currently subject to review by the Australian Energy Market Commission under a rule change request by Alinta Energy. The wholesale gas market also has an administered price cap, which is set at $40 per gigajoule.

Figure 2.3: Quarter 2 2022 saw a high proportion of overall returns from prices between $300/MWh and $1,000/MWh

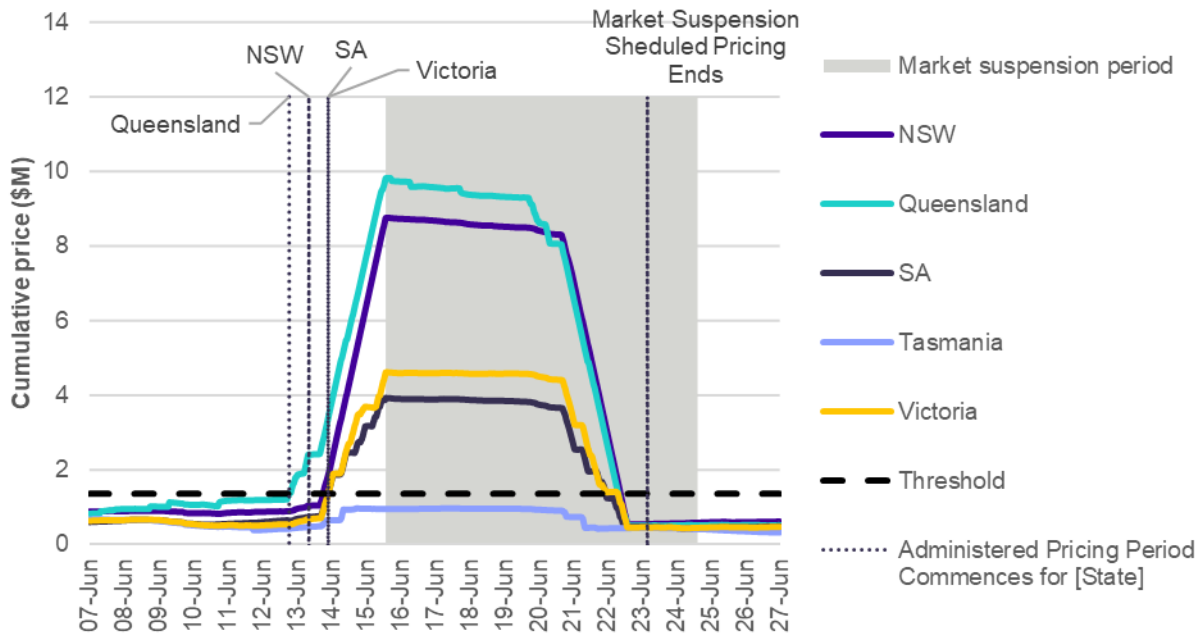
Spot market prices above $300/MWh by price band, Q1 2008 to Q2 2022



Source: AEMO, *Quarterly Energy Dynamics Q2 2022*, AEMO, 29 July 2022, accessed 8 November 2022, figure 21.

Figure 2.4: Cumulative price threshold was exceeded in all National Electricity Market regions apart from Tasmania

NEM cumulative price by region, 7 to 26 June 2022



Source: AEMO, *Quarterly Energy Dynamics Q2 2022*, AEMO, 29 July 2022, accessed 8 November 2022, figure 14.
Notes: NEM = National Electricity Market.

Following the application of the price cap, AEMO faced significant operational challenges and was forced to intervene to secure necessary capacity through issuing directions, issuing multiple National Electricity Market Lack of Reserve notices, and activating emergency

reserves under its Reliability and Emergency Reserve Trader contracts to procure additional supply.

On 15 June 2022, AEMO concluded that it was no longer possible to operate the market in accordance with the National Electricity Rules, triggering a market suspension across the 5 National Electricity Market regions. This saw the application of a pre-set market suspension pricing schedule which is based on an adjusted 4-week rolling average of historic prices in each region. Market-based pricing recommenced on 23 June 2022 and the market suspension was formally lifted on 24 June 2022.

2.1.2. Elevated wholesale spot prices were driven primarily by inflated input prices and low generator availability

Converging market conditions increased input prices for coal and gas generators in first half of 2022

A confluence of interlinking disruptions and shocks in the first half of 2022 caused high coal and gas prices and supply issues for black (thermal) coal and natural gas. These issues had cascading effects on coal-fired and gas-fired generation in the National Electricity Market, which flowed through to wholesale electricity prices more broadly. The disruptions and shocks were driven by domestic and international supply and demand factors, including:

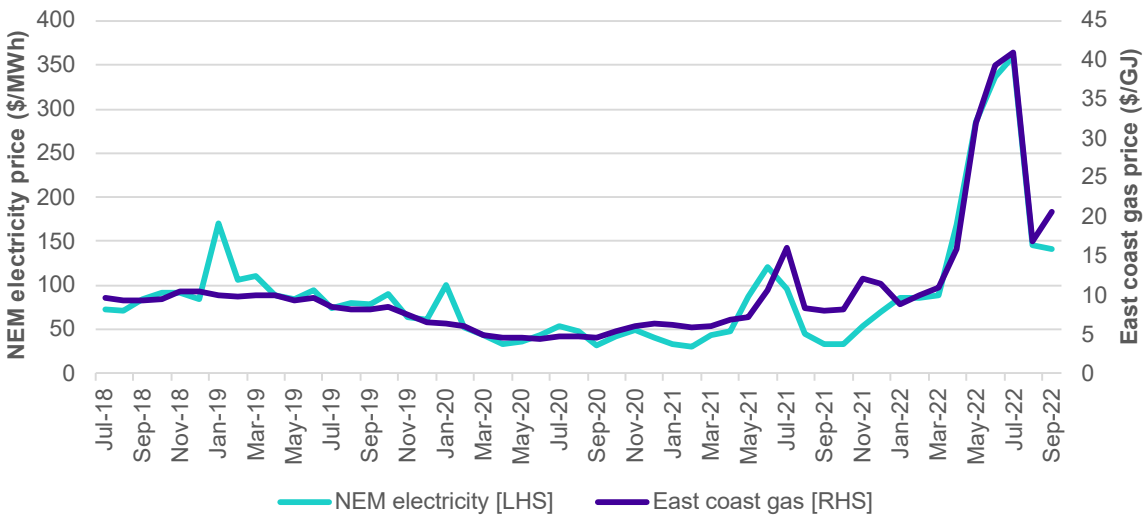
- significant supply disruptions to many international markets in coal and gas caused by Russia's invasion of Ukraine
- a high level of scheduled and unscheduled coal generation outages – and to a lesser extent gas baseload outages
- an early start to Australian winter created higher than expected demand
- numerous issues between individual coal mines not meeting forecast levels of deliveries to associated coal generators
- difficulties for some coal generators in replacing contracted coal or only limited mines selling coal that met the correct specifications
- the coal market is tight and logistic chains are near capacity, where it takes time to purchase coal and create new logistic chains
- weather, such as rain and floods, impacting coal supply.[7]

The direct impact of high international gas prices on average wholesale spot prices in the National Electricity Market in 2022 is illustrated in Figure 2.5.

[7] AER, *Wholesale Markets Quarterly Q2 2022*, Commonwealth of Australia, September 2022, accessed 8 November 2022, pp 1–12.

Figure 2.5: National Electricity Market electricity and east coast gas prices follow similar trajectories

Monthly average of NEM wholesale spot electricity prices and east coast wholesale gas prices, Q3 2018 to Q3 2022



Source: AEMO, *Quarterly Energy Dynamics Q3 2022*, AEMO, 29 July 2022, accessed 8 November 2022, figure 12.

Reduced generator availability across technology types throughout the second quarter of 2022 restricted electricity supply

Generator availability was a significant challenge across all technologies throughout the second quarter of 2022, particularly in mid-June. Lower generation output was not isolated to coal-fired and gas-fired generation with multiple factors impacting availability across technology types during this period, including:

- **Coal generation**: Coal generator outages – planned and unplanned – resulted in lower black and brown coal generator availability across both New South Wales and Queensland through the second quarter of 2022. The volume of generation capacity concurrently offline due to planned and unplanned outages peaked at 1.8GW and 4.6GW respectively on 13 June, corresponding to around 29% of total coal-fired power plant capacity registered in the National Electricity Market.[8]
- **Gas generation:** Using New South Wales as an example, the volume of gas generation offered as available to the market increased in the hours following the introduction of the administered price period in this region and then decreased by around 1.5GW in the subsequent hours.[9] AEMO directed generating units to operate in response to the withdrawal of availability and ultimately suspended the market to manage it under the challenging conditions. This contributed to a supply shortfall and pushed up underlying dispatch prices (that is, the bid prices received, which did not affect the administered settlement price but continued to contribute to the cumulative price in each region).
- **Hydro generation:** Following commencement of the administered price period, the available capacity of hydro generation (collectively 'run of river' hydro and pumped hydro) offered to the market reduced. In New South Wales, this was a steady reduction of

[8] AEMO, *Quarterly Energy Dynamics – Q2 2022 workbook*, AEMO, 29 July 2022, accessed 8 November 2022, figure 18. AER, *Registered capacity by fuel source – regions*, AER website, as at 30 June 2022, accessed 8 November 2022.

[9] AEMO, *Quarterly Energy Dynamics – Q2 2022 workbook*, AEMO, 29 July 2022, accessed 8 November 2022, figure 16.

around 2.3GW.[10] Pumped hydro power stations, of which the National Electricity Market has around 1,600MW of generation capacity, typically bid volume into the market based on arbitrage opportunity, which is the spread between the price for which they purchase electricity and the price for which they sell electricity. With the introduction of the administered price cap and the stabilisation of prices at or near $300/MWh, the arbitrage opportunity largely collapsed. The impact on this commercial model may have contributed to this withdrawal of offered capacity.

- **Wind generation:** Wind resource quality across most of the National Electricity Market was relatively low during May and June 2022It is worth noting that wind output was high relative to the previous quarter in the second quarter of 2022 due to new capacity being commissioned.[11]
- **Solar generation:** Average utility-scale solar PV generation increased between the second quarter of 2022 and the same period in the previous year, with new projects commissioned. This increase in output was despite relatively low solar irradiance conditions through the quarter.[12]

Lower availability of generators, along with an increase in demand driven by cold temperatures across the east coast, tightened supply relative to what would typically be expected in the lead up to winter.

Higher priced technologies set the price more frequently in Q2 2022

The price setting and dispatch process is critical to understanding market dynamics and competition. Wholesale spot prices in the National Electricity Market are calculated in 5-minute settlement intervals for each of the 5 National Electricity Market regions – referred to as Regional Reference Prices. The spot prices in each region and each interval are set through the dispatch process, in which generators submit a bid price and quantity of their available capacity to AEMO. AEMO's National Electricity Market dispatch engine sorts the bids into a price-based merit order before dispatching enough generation volume to meet forecast demand for the given region and interval.[13] All dispatched generators are then paid the 'spot' price – the final bid in the merit order that is required to meet the demand.

The wholesale spot price drivers discussed above were reflected in the price setting and generator availability trends seen through the first half of 2022. Coal-fired generators played a lesser role in price setting in the second quarter of 2022 relative to prior quarters, due to low reliability and low availability, which was exacerbated by coal supply security challenges and higher coal prices.

The reduced contribution of coal-fired generation capacity in the second quarter of 2022 led to a significant step up in the frequency of intervals in which hydro generation set the price, and a slight increase in frequency of price setting by gas and battery relative to the first quarter of 2022, and as compared with the preceding 3 quarters before this (see Figure 2.6).

---

10 AEMO, *Quarterly Energy Dynamics – Q2 2022 workbook*, AEMO, 29 July 2022, accessed 8 November 2022, Figure 16.

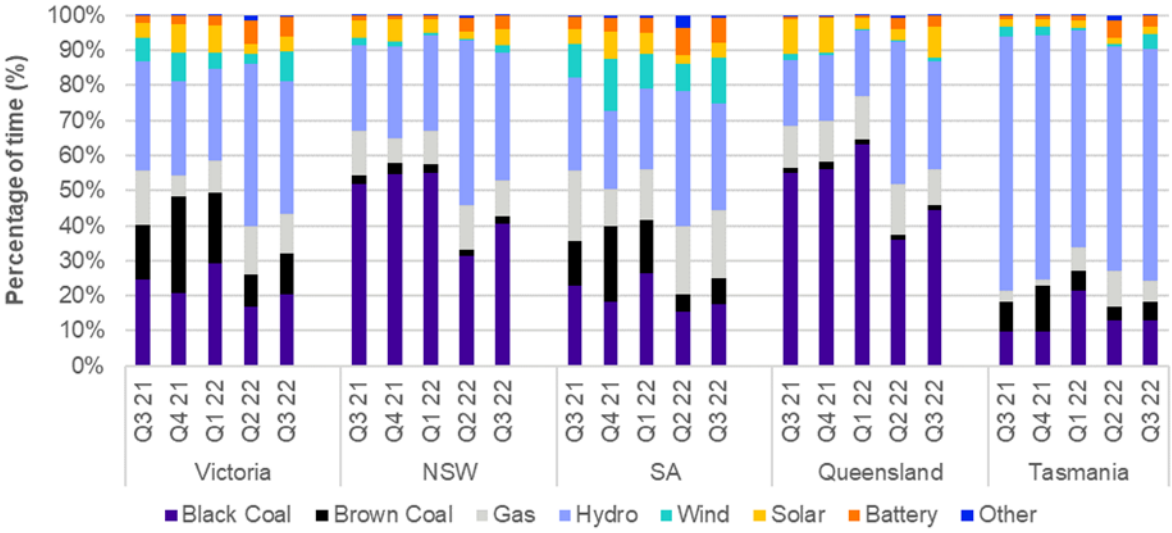
11 AEMO, *Quarterly Energy Dynamics Q2 2022*, AEMO, 29 July 2022, accessed 8 November 2022, p 28.

12 AEMO, *Quarterly Energy Dynamics Q2 2022*, AEMO, 29 July 2022, accessed 8 November 2022, p 29.

13 This description is a simplification of the National Electricity Market dispatch engine process, which is complex in practice and considers factors such as losses, constraints, co-optimisation with frequency control ancillary services, and a range of other factors.

Figure 2.6: Hydro generation sets price most frequently in quarter 3, while coal's price setting role reduced

Price-setting frequency by fuel type, Q3 2021 to Q3 2022



Source: AEMO, *Quarterly Energy Dynamics Q3 2022*, AEMO, 27 October 2022, accessed 8 November 2022, figure 19.

The change in the role of different price setting technologies had an impact on the settlement prices through the quarter, with higher bid-price technologies setting the price more frequently. In short, the cost reduction benefit that may be expected by a lower contribution from coal-fired generators, which have high input costs, was offset by the increased incidence of hydro and gas generators setting the price.

In addition, the average marginal prices set by *all* price-setting technologies were higher than in the previous 3 quarters. For thermal generators, this reflected higher input costs, while for hydro and battery the trend was likely related to opportunity cost.

2.1.3. Wholesale electricity prices may remain elevated in the short to medium term

The high-cost environment for gas and coal was a significant driver of energy market dynamics of the first half of 2022 and the June 2022 energy event. The current market expectation is that high gas and coal prices may continue to elevate National Electricity Market wholesale spot market prices in the coming quarters. Based on market pricing as at 31 October 2022, while commodity prices are expected to come down from recent high levels by the end of 2022, they are forecast to remain above pre-2022 levels, reducing through 2023 and 2024.[14]

Persistent elevated prices would be expected to have direct implications for electricity retail businesses as well as indirect impacts through the electricity contracts market. At the request of the Australian Government, the ACCC has provided advice on suitable options to improve the operation of the gas supplier code of conduct. The ACCC has also been engaging with the federal, state and territory governments on issues facing electricity and gas markets at Energy Ministers' meetings in 2022.

[14] ACCC, *Gas inquiry 2017–25 – LNG netback price series*, ACCC website, 2022, accessed 8 November 2022.

2.1.4. An orderly energy transition is needed to avoid extreme market conditions

The energy market is in transition, with the generation portfolio shifting from one dominated by a small number of large coal-fired power stations to one characterised by a technologically and geographically diverse generation mix, with solar and wind farms complemented by storage, hydro and gas assets. This transition is underway and is expected to accelerate as more coal-fired power stations retire.

Elements of the June energy event provide an example, albeit an extreme one, of a disorderly energy transition at pace. In particular, the June event was characterised with a significant reduction in baseload generator availability, insufficient available replacement capacity, and therefore high energy prices and volatility. These market conditions are similar, at a high level, to what could be expected of a very rapid and disorderly transition, with coal generator exits outpacing the development of renewable generation and storage capacity.

The event therefore serves as a timely reminder that the move to a more decarbonised National Electricity Market must be managed in an orderly fashion, to minimise the adverse impact on prices. With an orderly transition away from coal, and strategic development of new generation and storage capacity, the energy transition would not be expected to induce the market conditions seen in 2022.

2.2. The energy transition presents opportunities and risks for competition in the wholesale electricity market

A well-functioning and competitive market is critical to delivering the efficient investment in new generation and storage capacity needed to support the transition over the coming decades.

The National Electricity Market has been designed to enable a high degree of volatility in wholesale spot prices, such that prices can provide strong, market-driven investment signals about when and in which region new capacity is required. The market price cap is high to enable this volatility, however this is balanced with other price safeguards such as the cumulative price threshold which protect consumers from sustained high prices. These design features are intended to allow for transitory price volatility whilst ensuring excessive periods of high prices are not sustained. This pricing framework is dependent on a competitive market to respond to price volatility while ultimately maintaining prices at an affordable level for consumers.

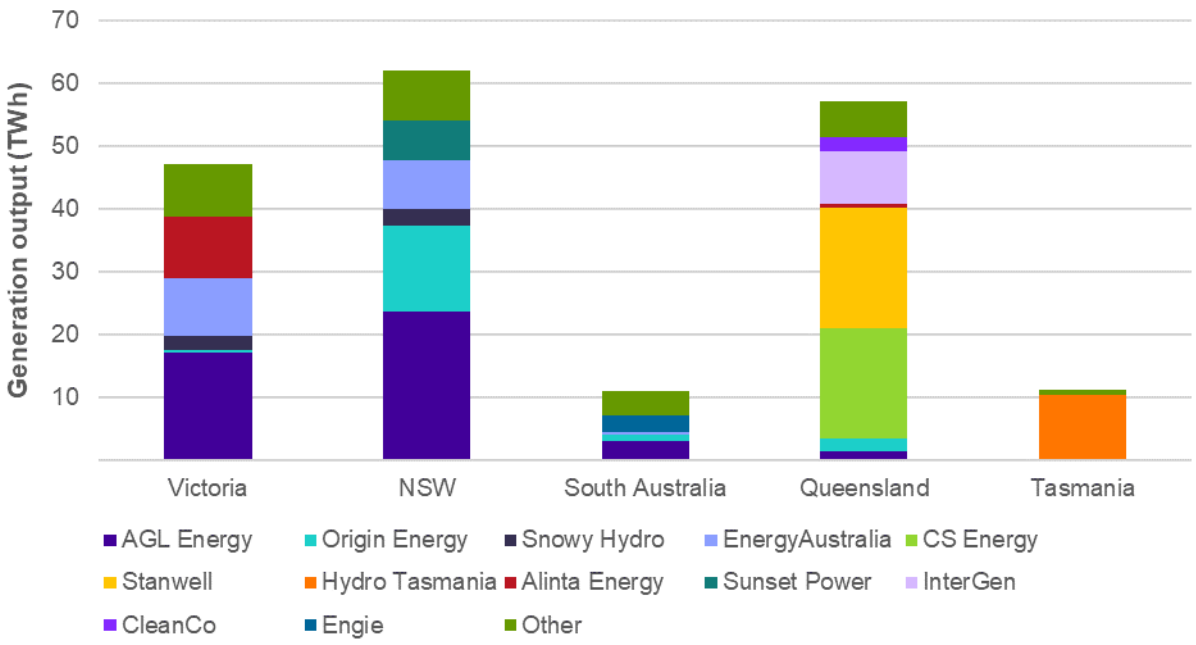
Further, as the sector transitions and the existing generation portfolio is largely replaced by new generation and storage, there is an opportunity to achieve a greater level of competition in the market through the diversification of generation types and ownership. There is also the risk that, without careful action by governments, the transition sees existing generation ownership trends retained or worsened.

2.2.1. Historically, ownership of existing generation capacity has been dominated by large coal-fired power stations

The installed capacity and generation output in the National Electricity Market remains under the ownership of a small number of generators, despite the opportunity for new entry through the transition (see Figure 2.7). These incumbents mostly own thermal (coal and gas) or hydro assets, which tend to be large in capacity and provide 24-hour ‘baseload’ or on-demand ‘flexible’ operations but are also diversifying their generation portfolios to include renewables and other storage assets across all regions in the National Electricity Market.

Figure 2.7: Most generation output in the National Electricity Market remains under the ownership of a small number of generators

Generation output per region by ownership, 2021

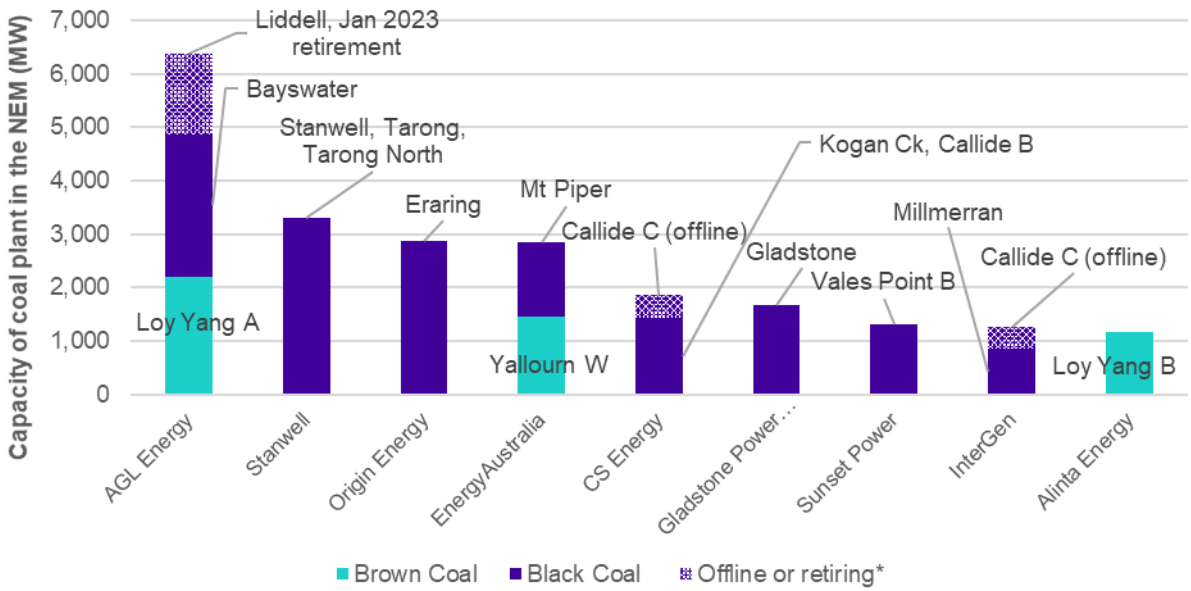


Source: AER, *State of the energy market 2022 data*, Commonwealth of Australia, 29 September 2022, accessed 8 November 2022, figure 2.22.

A similar level of concentration exists amongst owners of coal-fired capacity in the National Electricity Market: the 5 largest (AGL, Origin Energy, Stanwell, EnergyAustralia and CS Energy) own 75% of coal capacity as at October 2022 (see Figure 2.8). The expected retirement of coal assets is also likely to result in these participants diversifying to other technologies, reducing coal ownership in this concentrated market segment. For instance, in April 2023, the remaining 3 units (1,500 MW nameplate capacity) of Liddell power station will be retired, representing a decline in AGL's market share of capacity and firm generation in the National Electricity Market.

Figure 2.8: A similar level of concentration exists amongst owners of coal-fired capacity

Capacity of coal-fired power plant ownership in the NEM by owner, October 2022



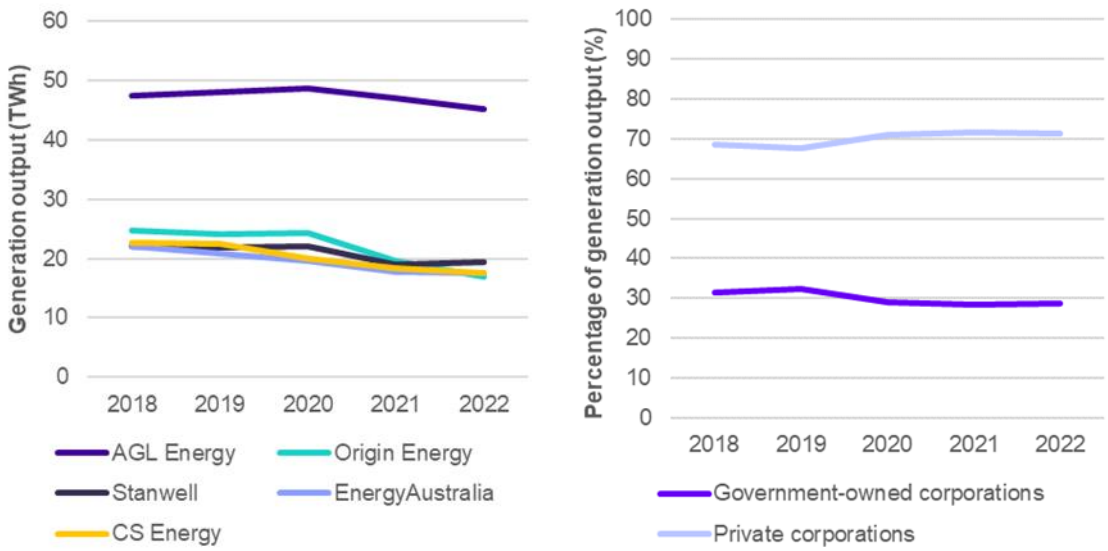
Source: AEMO, *NEM Generation Information October 2022*, AEMO, 7 November 2022, accessed 8 November 2022.
Note: Liddell's remaining 3 units are scheduled to retire in January 2023. Callide unit C3 has been offline since November 2022 and is planned to return to service in January 2023. Callide unit C4 has been offline since November 2021 and is planned to return to service in April 2023.

The overall share of generation output from the 5 largest participants, as compared against each other, has not changed materially in the last 5 years despite the entry of new market participants and significant growth in renewable energy over this time (see Figure 2.9).

The share of private ownership compared to public ownership of generation output has remained stable over this period, with around 72% and 28% of output from privately and publicly owned generation assets respectively. This lack of change in the extent of private ownership has implications for future new-entrant capacity given the role of federal, state and territory governments in supporting this entry.

Figure 2.9: The overall share of generation output from the 5 largest participants has not changed materially in the last 5 years

Generation output from the 5 largest corporations in the NEM (left) and percentage of total generation produced by government-owned versus private corporations (right), 2018 to 2022



Source: AER, *State of the energy market 2022 data*, Commonwealth of Australia, 29 September 2022, accessed 8 November 2022, figure 2.22.

2.2.2. Traditional generation businesses have encountered financial challenges

The above analysis demonstrates that a small number of market participants control a large share of the market (see Figure 2.9 above). Despite the recent changes in technology mix in the market, the market share of the largest market participants has not materially changed in the last 5 years.

However, market conditions have been financially challenging for many of these larger players. Analysis of public data indicates a large decrease in overall earnings for a number of coal-fired generators during 2021–22 financial year, relative to prior years. Notable results include:

- AGL reported that its underlying earnings before interest and taxes for its wholesale business declined by $476 million, or 42.5%, between 2020–21 and 2021–22 financial years. Unplanned outages at AGL's Loy Yang power station in Victoria contributed to this result.[15]
- In its 2022 interim report, EnergyAustralia reported reduced operating earnings compared to the same period in 2021, attributed mainly to lower generation from unplanned outages at Yallourn and coal supply constraints at Mount Piper.[16]
- CS Energy, a Queensland state-owned corporation, reported a significant post-tax loss for the 2021–22 financial year partly due to an extended outage at its Callide C coal-fired power station. CS Energy wrote off $104.3 million of value of the Callide C plant, as well as $19.2 million from Callide B power station, during 2021–22. This followed significant write-offs on the value of both generators in the prior financial year.

[15] AGL Energy, *Annual Report 2022*, AGL Energy, 19 August 2022, accessed 8 November 2022, p 39.

[16] CLP Holdings, *CLP Holdings 2022 Interim Report*, CLP Holdings, August 2022, accessed 8 November 2022, p 42.

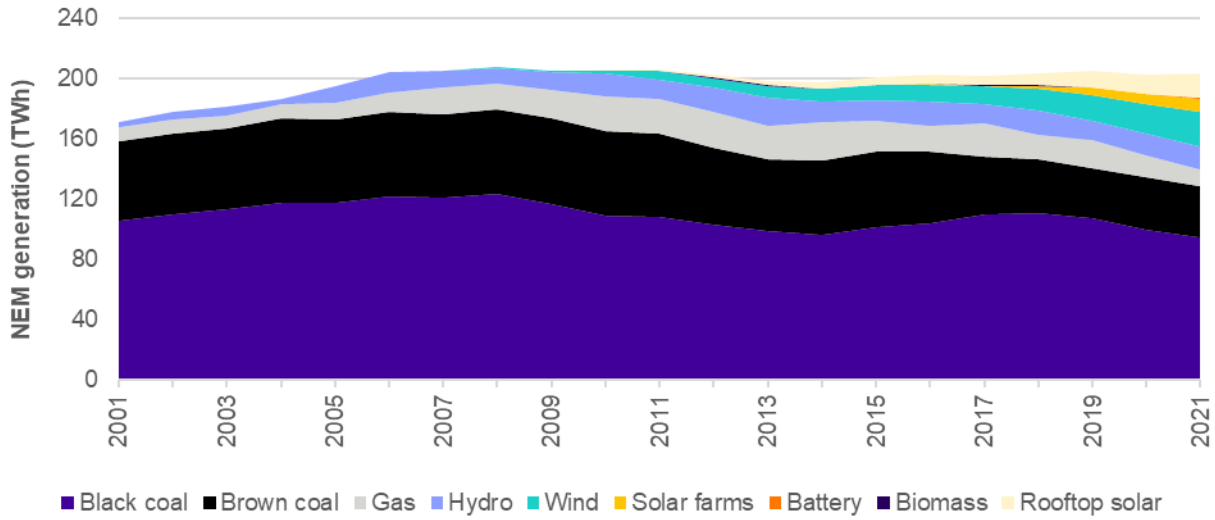
The declining financial performance and reliability of coal generators has already been reflected in the acceleration of closure dates for a number of coal generators and will add pressure for replacement capacity to enter the system in coming years.[17]

2.2.3. As more renewable capacity is built, new entrants are needed to diversify ownership

Coal-fired power stations (black and brown coal) continue to comprise the largest share of the generation mix in the National Electricity Market, contributing 60% of total generation in 2021 (see Figure 2.10). However, many of the remaining coal-fired power stations are expected to retire in the next 2 decades as they reach the end of their technical lifespan, become uneconomic to operate, or are committed to early closure.

Figure 2.10: Coal-fired power continues to comprise the largest share of the generation mix in the National Electricity Market

NEM-wide electricity generation 2010–21, by fuel source



Source: AER, *State of the energy market 2022 data*, Commonwealth of Australia, 29 September 2022, accessed 8 November 2022, figure 2.16.

Recent and projected market trends indicate that retiring thermal capacity will be almost entirely replaced by variable renewable energy sources – a mix of onshore wind, onshore solar (utility-scale and rooftop PV), and some offshore-wind – with firming provided by a mix of shorter-duration and longer-duration technologies including batteries, hydro plants, as well as new fast-start gas plants such as reciprocating engines and aeroderivative turbines. The large volume of new capacity forecast in the coming decades under AEMO's 2022 Integrated System Plan illustrates this technology shift (see figures 2.11 and 2.12). Additional generation will also be required to meet electrification-driven increases in electricity demand.

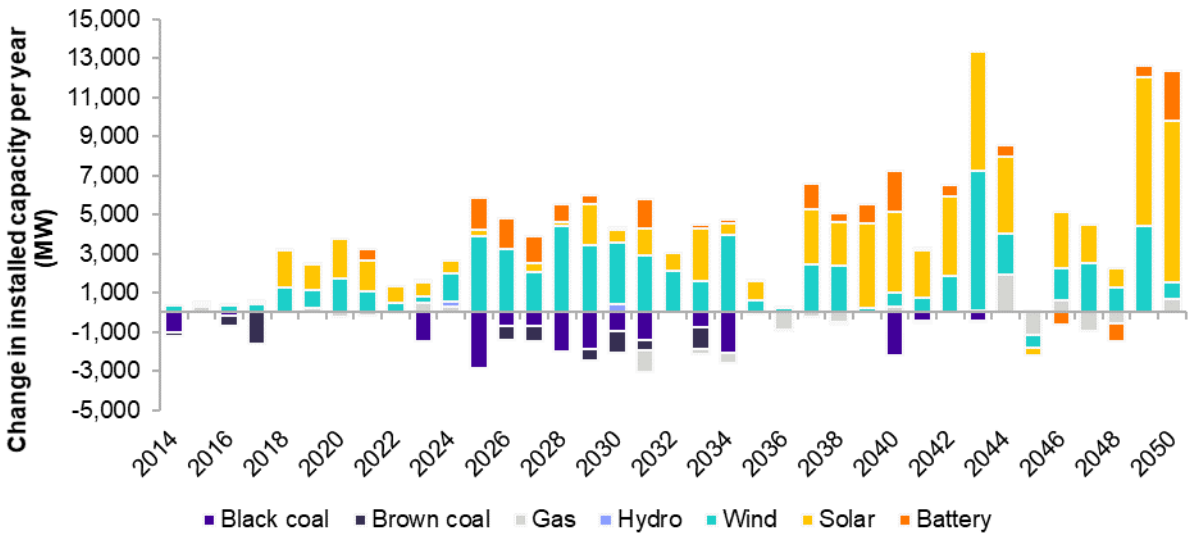
As mentioned, the implications of this transition for market concentration are not clear. To date, the gradual increase in renewable energy penetration has not materially impacted

[17] Across 2021 and 2022, Origin, AGL and EnergyAustralia have announced accelerated closures of their coal-fired generation assets; Origin Energy Limited, *Origin proposes to accelerate exist from coal-fired generation* [media release], Origin Energy Limited, 17 February 2022, accessed 8 November 2022; Department of Industry, *Statement on early closure of Loy Yang A and Bayswater power stations* [media release], Australian Government, 11 February 2022, accessed 8 November 2022; EnergyAustralia, *EnergyAustralia powers ahead with energy transition* [media release], 10 March 2021, EnergyAustralia, accessed 8 November 2022.

market share-metrics. As larger volumes of coal-fired generation exit the market, the new entrant capacity may be either owned or controlled by incumbents (retaining or even reducing the diversity of ownership in the market, new organisations or those currently operating with a minor market share. As such, the energy transition, and the generation turnover it entails presents both an opportunity and a risk to future market competition. As discussed below, there may be a potential for governments to leverage the opportunity as they seek to facilitate an orderly energy transition in their respective jurisdictions across the National Electricity Market.

Figure 2.11: The large volume of new fuel types forecast in the coming decades illustrates the technology shift

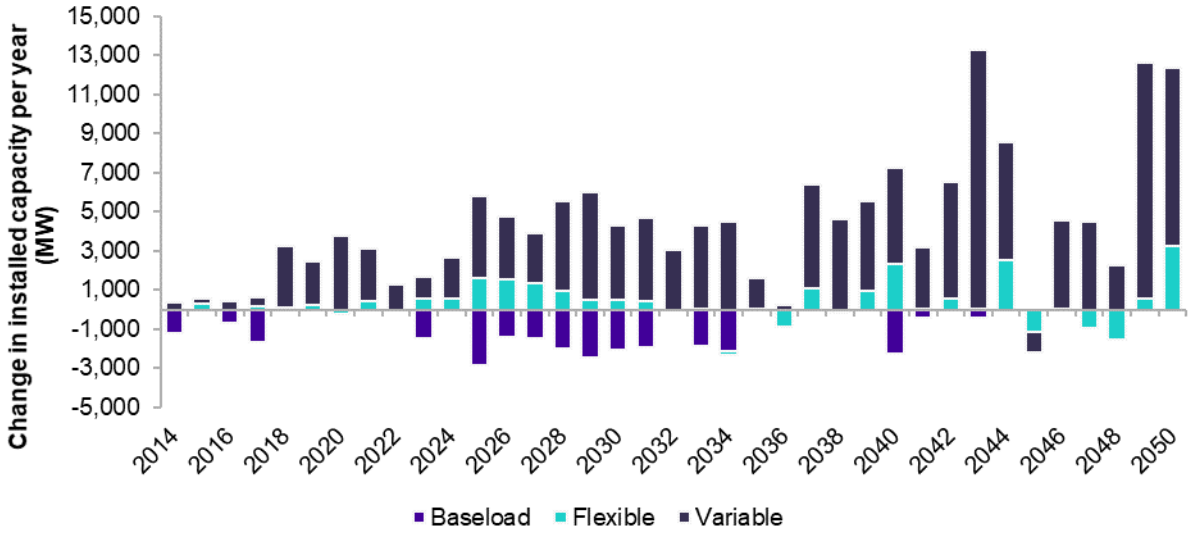
Entry into and exits from the NEM by fuel type (in MW), 2014–2050



Source: Historic data based on the AER's State of the Energy Market report 2022, and projections based on AEMO's 2022 Integrated System Plan, Step Change scenario; AER, *State of the energy market 2022 data*, Commonwealth of Australia, 29 September 2022, accessed 8 November 2022; AEMO, *2022 Integrated System Plan (ISP)*, AEMO, 30 June 2022, 8 November 2022.

Figure 2.12: The large volume of new variable generation in the coming decades will support the transition

Entry into and exits from the NEM by generator type (in MW), 2014–2050



Source: Historic data based on the AER's State of the Energy Market report 2022, and projections based on AEMO's 2022 Integrated System Plan, Step Change scenario; AER, *State of the energy market 2022 data*, Commonwealth of Australia, 29 September 2022, accessed 8 November 2022; AEMO, *2022 Integrated System Plan (ISP)*, AEMO, 30 June 2022, 8 November 2022.

Note: Figure 2.12 represents a simplified categorisation of technologies, with black and brown coal classed as 'baseload', all gas, hydro and battery classified as 'flexible' and variable renewables as 'variable'. We note this is a simplification and that many of these technologies can operate in different ways.

2.2.4. Governments can support competition

State and territory governments across the National Electricity Market have announced or introduced mechanisms to support accelerated investment in renewables as well as short- and long-duration storage, as a means to facilitate the orderly energy transition and achieve their decarbonisation targets. In addition, the Australian Government is investing in Snowy 2.0. Examples of these mechanisms include:

- Reverse auctions under the Victorian Renewable Energy Target where the Victorian government is the off-taker of first resort. The Victorian Government has also announced both offshore wind and storage targets, with the mechanisms for supporting these targets yet to be confirmed.
- Proposed revival of the State Electricity Commission as a government-owned entity in Victoria to directly invest in renewable generation as the off-taker of first resort.
- The New South Wales Long-term Energy Service Agreements competitive tenders where the New South Wales Government is the off-taker of last resort.
- The Queensland Energy and Jobs Plan, where Queensland Government-owned corporations are proposing to directly fund new transmission and pumped hydro facilities and support new renewables via being the off-taker of first resort.

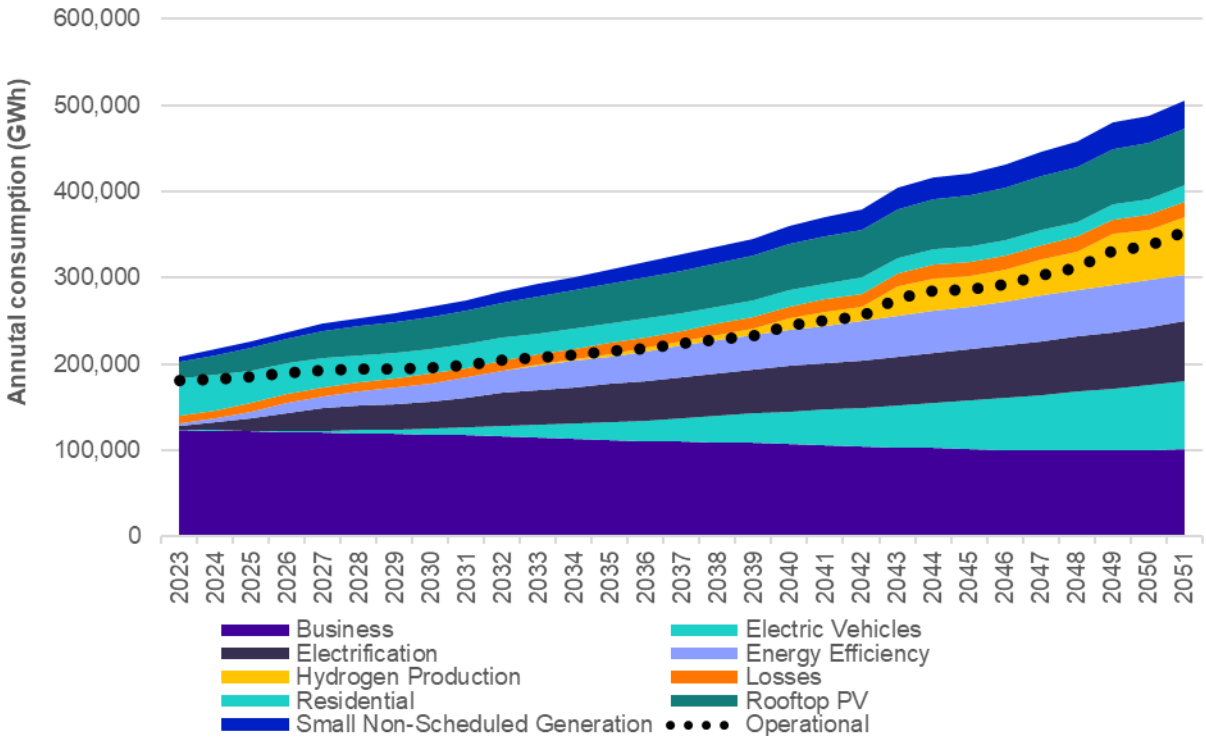
Given the significant volume of new generation capacity expected to be installed with government support, these interventions present an opportunity for government to influence the competition outcomes of the energy transition. It is important that such mechanisms be deliberately designed in a way that promotes competition and competitive outcomes.

2.2.5. Demand-side market developments can enhance competition

Overall electricity demand has remained relatively stable over the last decade, marginally decreasing since 2013 as a result of improvements in energy efficiency. Demand for grid-sourced electricity has also decreased due to the uptake of rooftop solar panel systems. However, demand is forecast to increase in coming decades due to electrification of other sectors of the economy, such as transport and industry (see Figure 2.13).

Figure 2.13: Although remaining relatively stable over the last decade, demand is forecast to increase in coming decades

Forecast electricity consumption in the NEM



Source: AEMO, *2022 Electricity Statement of Opportunities*, 2022, accessed 8 November 2022.

Electrification and technological changes such as digitalisation and smart metering provides increasing ability for demand to become more flexible and responsive to spot prices. This can enhance wholesale market competition as demand-side resources could compete with dispatchable supply-side resources such as storage and hydro and reduce the ability of dispatchable capacity to exercise market power during low-wind and low-sun periods.

2.2.6. Future policy must adapt to meet the increasingly complex competitive dynamics of the National Electricity Market

There is considerable recent and ongoing scrutiny being applied to the 2022 spot market dynamics, including in the AER's December 2022 Wholesale electricity market performance report. Given this detailed analysis being undertaken by market bodies, we have not sought to identify further policy recommendations to enhance the effectiveness or workability of the market in this section of the report. However, we reiterate the importance of governments seeking to increase the diversity of generation ownership in the National Electricity Market as part of the energy transition. As noted above, governments have made clear that they will play a key role in facilitating the transition, and therefore have the ability to ensure that the

future of electricity generation in the National Electricity Market is more competitive and resilient than our current generation landscape.

Similarly, we have not sought to comment on the various spot market policy reform processes currently under consideration. However, the ACCC is following policy reforms that have been proposed to reduce the risk of market suspension in the future, such as the rule change proposed by Alinta Energy to double the administered price cap to $600/MWh. We support the rationale for considering such policy reforms, which is to improve market operation and continuity.

The ACCC also has a role monitoring the conduct of generators and taking enforcement action against conduct which contravenes the Competition and Consumer Act, including anticompetitive behaviour. The ACCC will have close regard to any such conduct in the market as the energy transition evolves and market structure changes. We will continue to monitor for concerns under Part IV and Part XICA of the Competition and Consumer Act, including the provisions which prohibit generators from bidding in the spot market dishonestly, fraudulently or in bad faith, or for the purpose of distorting or manipulating prices in the electricity spot market. As discussed in Section 3.3.1, the ACCC will also continue to monitor compliance with the provision that prohibits generators from failing, limiting, or restricting offers to enter electricity hedging contracts with the purpose of substantially lessening competition in the electricity market.

3. Electricity hedging contracts market

Key points

- Electricity retailers use hedging contracts to reduce their exposure to high wholesale spot prices. A competitive contracts market is therefore important to risk management and retailer viability.
- A number of retailers have lost access to the Australian Securities Exchange (ASX) to provide hedging cover in 2022. This has meant they have had to source contracts in the over-the-counter market instead.
- Prices in the over-the-counter market were notably higher than on the ASX from quarter 2 2022 onwards, putting retailers without ASX access at a disadvantage.
- Prices for ASX-traded and over-the-counter contracts have increased in 2022, in line with increases in wholesale spot prices.
- The increase in contract prices and price volatility has resulted in higher margin requirements for ASX traded contracts. These higher costs were imposed on clearing participants (providers of ASX trading services) and passed through to their customers, including retailers.
- Overall trading activity for ASX contracts reduced significantly in the first half of 2022, primarily in response to the increase in margining requirements.
- Some clearing participants, which facilitate retailer access to ASX trading, have capped their position (including by not taking on new clients). Other clearing participants have reduced their position by requiring their customers to close out their contracts or by introducing other conditions on trading.
- Smaller retailers, which typically use a mix of ASX and over-the-counter contracts, noted that onerous conditions and constraints on accessing clearing services made trading ASX contracts challenging or inaccessible from as early as March 2022. Reliance on over-the-counter contracts has increased as ASX contracts have become less accessible.
- Larger generators and gentailers decreased the volume of their ASX trades, especially in the second and third quarters of this year, which reduced liquidity in the contracts market. Some larger generators and gentailers increased their over-the-counter sales, however this uplift was outweighed by the reduction in their ASX trading volumes.
- The recent trend towards diverging ASX and over-the-counter pricing, along with the increasing role of over-the-counter contracts in the risk management approaches of some retailers, reinforces the need for continued monitoring of the contracts market.
- The Default Market Offer and Victorian Default Offer methodologies for calculating wholesale electricity costs may benefit from incorporating findings in this chapter that reveal in more detail the contracting practices of retailers and the issues they face in current market conditions.

3.1. A liquid contracts market underlines a competitive wholesale electricity market

This section discusses the electricity hedging contracts market in terms of its role and purpose. The discussion draws on information obtained from market participants using our compulsory information gathering powers and the data and key insights obtained from this information.

3.1.1. Hedging contracts are essential to managing risk for market participants

Why are hedging contracts used?

Prices in the wholesale spot market range between a market price floor of -$1,000/MWh and a market price cap of $15,500/MWh, as identified in Chapter 2.[18] This wide price range is intended to enable price volatility which is intended to provide price signals to the market reflecting supply and demand needs. However, this volatility presents a risk to market participants – both the sellers of electricity (generators) and the buyers (retailers and other large customers) – who can be exposed to high prices (customer risk) and low prices (generator risk).

To manage their price exposure risk, both buyers and sellers of wholesale electricity in the National Electricity Market are incentivised to enter hedging contracts to serve a range of purposes in the National Electricity Market including:

- manage spot market price exposure and provide cost and revenue certainty for market participants (as described above)
- allow for retailers to offer their customers contracts with prices that are much less volatile than wholesale spot prices
- support generators to secure, and lower the cost of, funding by enabling a steadier income stream that debt and equity providers can invest against. Contracts are especially important for variable renewable energy generators, given the bulk of their lifecycle costs are incurred prior to commissioning
- support coal and gas generators to manage and lower the cost of fuel supply costs by providing a steadier income stream that protects commodity providers against the generator failing to pay.[19]

How do retailers use hedging contracts to manage risk?

Hedging strategy refers to how a business uses hedging contracts to mitigate their exposure to wholesale market risk. Hedging risks can be categorized into price risk (price volatility and uncertainty), volume risk (unpredictability in forecast load) and shape risk (time of use load shape).

A retailer will seek to manage these risks using a variety of hedging products. The selection of products should be informed by a company's risk management policy (trading limits) and trading strategy (the best way to manage risk within the policy constraint).

Hedging contracts typically take the form of a 'futures' contract that requires the buyer and seller to transact at a specific future time (for example, quarter 3 2023), or an option contract that provides a right to transact at a future time.

---

[18] The market price cap is for 1 July 2022 to 30 June 2023. The market price cap for the previous financial year, 1 July 2021 to 30 June 2022, was $15,100/MWh. The market price cap changes annually at the rate of inflation, and we note the Reliability Panel recommended further changes (additional to inflation indexation) to the market price cap in its 2022 Reliability Standard and Settings Review report.

[19] This is also relevant for greenfield long-duration storage assets that contract with renewable generators in order to fix their 'fuel' costs (that is, the prices paid by these storage assets to fill up their storage).

There are 3 broad types of hedging contracts that mitigate spot price risks for retailers by fixing their electricity price:

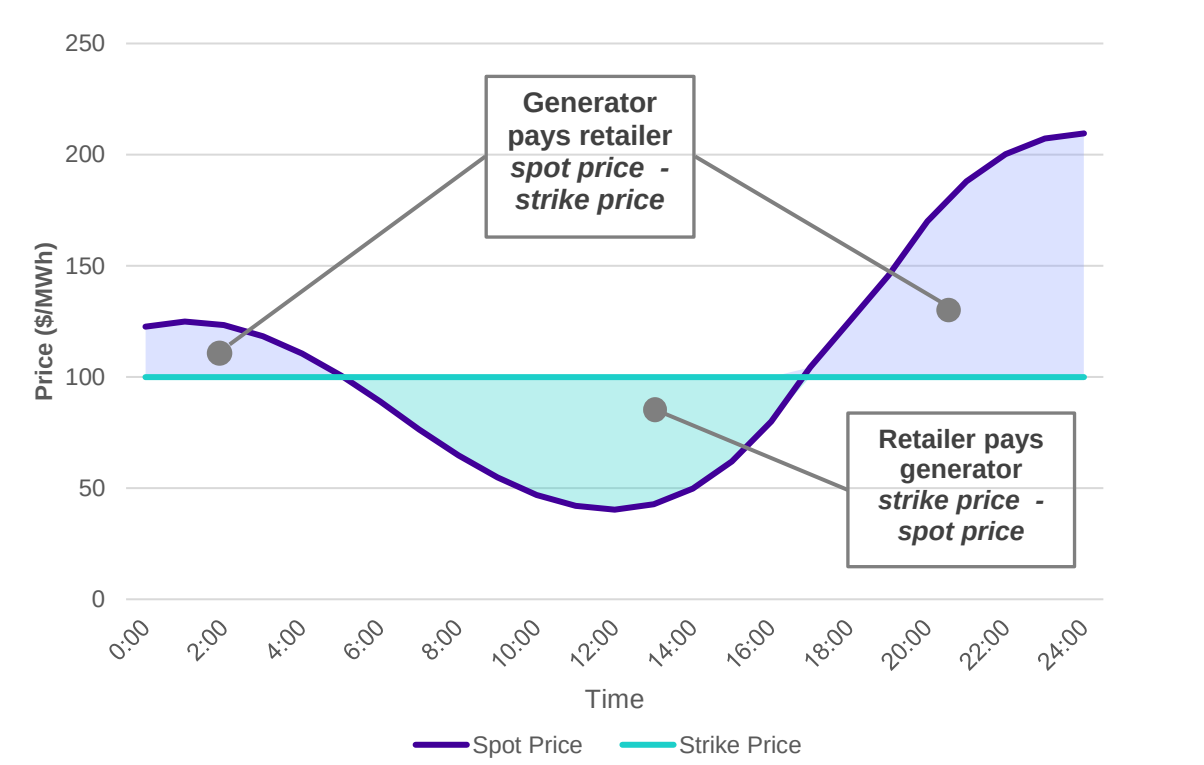
- Fixed-volume hedging contracts that provide a fixed price for a pre-specified quantity of electricity (in MWs) over a period of time. They are the most common type of hedging contract in the National Electricity Market (see Box 3.1).
- Load following swap contracts, where a fixed price is provided for a quantity of electricity that is not pre-specified. Instead, the amount of electricity that is settled under the hedging contract depends on (or 'follows') the load of the buyer of the hedging contract.
- Generation-following hedging contracts, where a fixed price is paid for a quantity of electricity that is also not pre-specified. However, in this instance, the amount of electricity settled under the contract depends on (or 'follows') the actual output of the seller of the contract.

Box 3.1: Fixed-volume hedging contracts in the National Electricity Market

Fixed-volume hedging contracts commonly take the form of a contract called a 'swap' or a 'cap'. These are the most common hedging contracts in the National Electricity Market.

A swap contract trades an agreed volume of generation during a fixed period for a fixed price (the 'strike price'). In effect, this allows a retailer to swap its exposure to the variable market price for a fixed strike price payment. For example, if a retailer and generator enter into a swap contract with a strike price of $100/MWh, they are agreeing that the retailer will, once its spot payments are netted off, effectively pay a fixed price of $100/MWh to the generator (see Figure 3.1). The period can either be round-the-clock (a 'flat' or 'base' swap contract) or at pre-defined periods of the day that loosely correlate with peak-demand periods ('peak' swap contract).

Figure 3.1: Operation of a basic swap contract

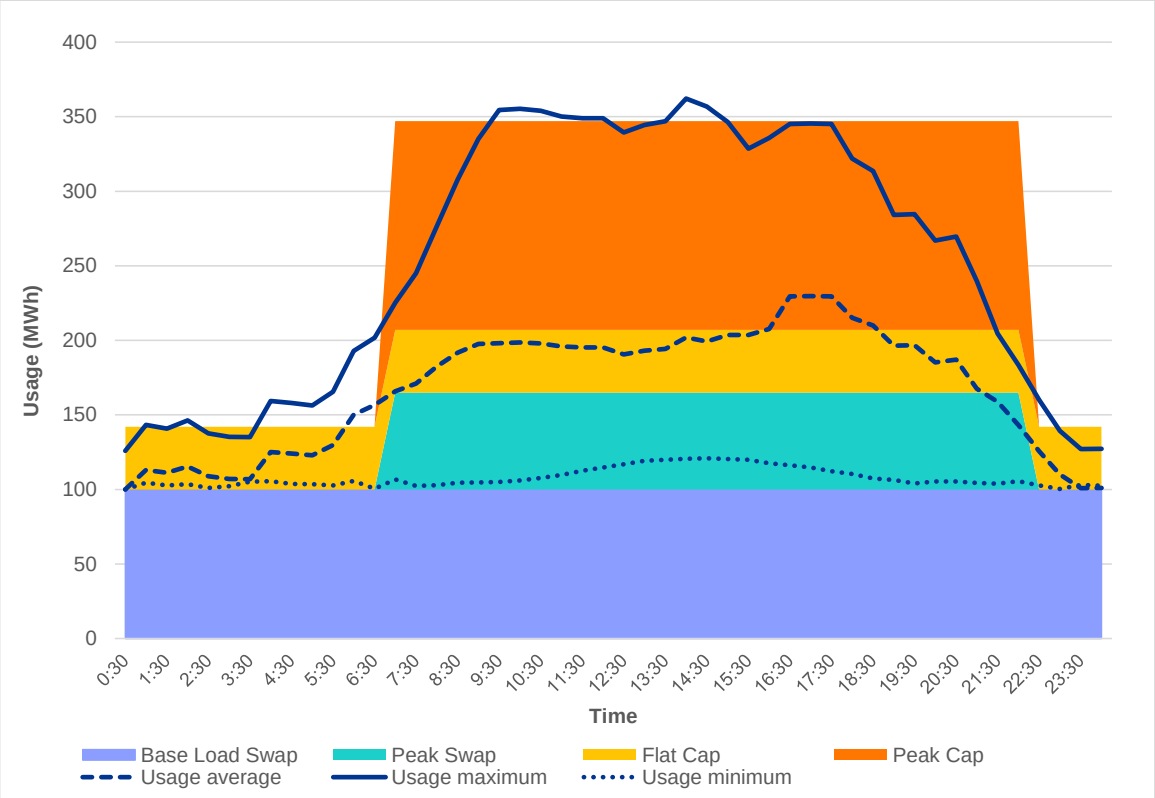


Source: Adapted from Productivity Commission, *Appendix C – Electricity Network Regulatory Frameworks Inquiry report*, Productivity Commission, Australian Government, 2013, accessed 8 November 2022.

A cap contract is like a swap contract but acts to protect the buyer of the cap contract from high prices only, rather than overall market volatility. The contract trades a fixed volume of energy for a fixed price when the market price exceeds a specified price (usually $300/MWh).

An illustrative risk management approach which adopts a combination of cap contracts and swap contracts is demonstrated in Figure 3.2, below.

Figure 3.2: Indicative hedging strategy using a variety of hedging products



Source: Adapted from Productivity Commission, *Appendix C – Electricity Network Regulatory Frameworks Inquiry report*, Productivity Commission, Australian Government, 2013, accessed 8 November 2022.

More innovative fixed-volume hedging contracts have emerged in recent times such as 'super peak' swap contracts which hedge the buyer during narrower pre-determined time periods of the day. For instance, during the morning and afternoon/evening peak-demand periods, which have become accentuated as solar generation has reduced day-time demand.

Load following swap contracts provide the highest risk mitigation for contract buyers, with volume risk transferred to the seller. These contracts are typically more expensive and relied upon by new entrant retailers and some smaller retailers, as described in Section 3.2.4.

A generation-following hedging contract provides the lowest volume risk mitigation to a retailer and the greatest volume risk mitigation to a generator. A common type is a power purchase agreement, which is typically executed between retailers or corporate electricity purchasers and renewable energy projects.

Recently, more innovative generation-following hedging contracts have emerged including proxy revenue swap contracts, 'solar shape' and 'inverse solar shape', which together have a flat load profile and hence are an alternative to flat (or baseload) swap contracts.[20]

How do generators use hedging contracts to manage risk?

Like retailers, generators operating in the National Electricity Market use hedging contracts to reduce their risk by managing their exposure to volatile wholesale spot market prices. While retailers are typically most concerned with the risk of high prices, generators are most impacted by low (or even negative) spot prices.

By entering contracts with retailers or other counterparties, generators can lock in greater certainty of the price they will receive for some or all of the electricity they generate in the future. This revenue certainty is important from a commercial perspective, reducing the cost of project financing and providing other benefits noted previously in this section.

3.1.2. The contracts market operates separately and in parallel to the National Electricity Market's wholesale electricity market

The contracts market is a non-compulsory, decentralised, market in which futures and options contracts are bought and sold via either an exchange platform, typically facilitated by a clearing participant and broker, or bilaterally between entities (termed over-the-counter).

Market participants usually document over-the-counter trades using the industry standard, International Swaps and Derivatives Association Master Agreement. This standard contract sets out the terms to be applied to a derivatives transaction between 2 parties, with the key terms of the agreement determined on a bespoke basis between parties. When trading over-the-counter, parties manage credit risk by assessing the creditworthiness of their counterparties. Where necessary, they also impose credit support requirements which are usually documented in a Credit Support Annex to the International Swaps and Derivatives Association Master Agreement.

Exchange-traded contracts are primarily traded on the ASX, while FEX Global is a second exchange that has recently entered the market. Participants in exchanges include generators, retailers, speculators (for example, hedge funds), banks and other financial intermediaries. Products traded on exchanges are standardised and are available for New South Wales, Victoria, Queensland, and South Australia.[21] These products are settled through a centralised clearing participant, which acts as a counterparty to all transactions and requires daily cash margining to manage credit default risk (see Box 3.2).

[20] Inverse solar shape and solar shape were introduced by broker Renewable Energy Hub during 2021. For more details, see www.renewableenergyhub.com.au/new-energy-contracts-for-a-new-energy-future/.

[21] Tasmania is not included as this market is regulated.

Box 3.2: Managing credit risk through margin requirements

Central exchanges like the ASX facilitate transactions between many different buyers and sellers by acting as the counterparty to all trades. In the context of ASX energy derivatives, this includes facilitating financial settlement between contract buyers and sellers and results in potential exposure to 'counter party credit risk' by the ASX. Counter party credit risk refers to the likelihood that either the buyer or seller of a contract may not be able to fulfill its financial settlement obligations when a contract is out-of-the-money.

To manage this credit risk, the ASX imposes margin requirements on contracting counterparties. These are imposed on clearing participants that pass them through to their customers). For instance, ASX Energy requires counterparties to post an 'initial margin' that covers 99.7% of expected daily price movements for a given futures or options contract. Additionally, a 'variation margin' must also be posted at the end of each trading day to cover potential changes in the value of the position.

Separate to the margin requirements of the ASX, retailers face other financial risk mitigation requirements. Retailers, as buyers of electricity in the wholesale spot market, must meet AEMO's prudential requirements to be able to participate as market customers in the National Electricity Market. These prudential margins protect generators from the risk of the retailer defaulting on their electricity purchases.[22] Collateral requirements may also be imposed on over-the-counter arrangements; however, these are less standardised.

Unlike some other electricity markets, such as that in Great Britain, contract positions do not feed into the National Electricity Market's wholesale electricity dispatch process. The National Electricity Market operates as a 'gross pool' where generators are dispatched based on forecasts of electricity demand that do not account for contract positions. As a result, contract positions exist outside of the spot market as a risk management tool for buyers and sellers within the spot market.

3.1.3. A liquid contracts market facilitates competition in the wholesale electricity market

The contracts market can promote effective competition in the spot market through its impacts on both investment and operational decisions of generators and retailers. For generators, greater certainty about the price and demand for the hedging contracts they sell simplifies investment decisions. In this way, a liquid contracts market can make competition more effective and workable for both the spot and contracts markets.

Contracts market liquidity – which measures the ease with which contracts can be traded – is an important indicator of market performance and in turn the workability and effectiveness of competition. All things being equal, higher contracts market liquidity typically indicates competition in the contracts market is more effective and workable than if the contracts market was illiquid.

As reported in the Australian Energy Regulator (AER)'s State of the Energy Market 2022 report, the ASX was the sole futures exchange operating in the National Electricity Market until the launch of FEX Global in March 2021.[23] FEX Global offers a similar range of products to that on the ASX; however, it is relatively illiquid with only 3 trades having occurred on the platform as of 30 June 2022. FEX Global has, however, introduced new

[22] In contrast to exchange-traded contracts where the exchange (for example, ASX in the case of ASX contracts) bears the risk from counterparty non-payment, AEMO does not bear the risk from retailers (or generators, if and where settlement spot prices are negative) defaulting on their spot electricity purchases. Instead, generators (retailers) bear the risk of retailer (generator) default.

[23] AER, *State of the energy market 2022*, Commonwealth of Australia, 29 September 2022, accessed 8 November 2022, p 26.

products seeking to cater for current market conditions, which could be valuable for increasing liquidity.

The State of the Energy Market 2022 report also noted an increase in ASX contract liquidity across the National Electricity Market in recent years. However, the AER noted June and July 2022 saw a marked decline in ASX trade for some contract types. Trends in liquidity during 2022 are further discussed below based on the findings from our collection of information from market participants.

3.1.4. Transparency about contracting activity can aid policy development

The ACCC recently gathered information from market participants to investigate ASX liquidity, as well as provide insights on any impact on over-the-counter contracts market liquidity during the periods of high prices and volatility in May and June 2022. The ACCC's information collection included questions on retailers' contracting experiences over the January 2021 to September 2022 period. The ACCC also required market participants to provide contract data over the 2021–2022 period, including both ASX and over-the-counter trading.

Given the important role that hedging contracts play in enabling competition amongst both electricity retailers and generators, it is critical that competition in the contracts market itself is maintained. A competitive contracts market should facilitate the entry of new retailers and generators into the National Electricity Market and enable them to participate and compete alongside larger incumbents.

Section 95ZK of the Competition and Consumer Act gives the ACCC a wide-ranging power to compulsorily require the provision of information or documents relevant to our inquiries. In this case, it enables us to obtain that material in relation to the supply of electricity in the National Electricity Market. For the purposes of this inquiry, the ACCC collected information from a market sample of retailers that we consider representative given current market trends (see Box 3.3).

Box 3.3: Market sample used for our analysis

We used our compulsory information gathering powers to obtain commercially sensitive data on hedging contracts from electricity market participants. Our analysis provides a unique view of the true contracts market undertakings which has not previously been captured through recent voluntary reporting. We collected hedging contract information from 22 market participants that in aggregate account for approximately 90% of the retail residential market and 80% of electricity generated in the National Electricity Market.

Our dataset comprises of both smaller, standalone, retailers ('smaller retailers') and medium and larger retailer businesses with generation assets (termed 'larger generators and gentailers' in this chapter). The contract data captured in this analysis includes all exchange-traded and over-the-counter contracts for these participants traded between January 2021 and September 2022.

Given the above, and analysis undertaken compared to the total ASX market size, we believe our sample represents a significant proportion of ASX traded volumes across a range of products.[24] While it is harder to assess the percentage of total over-the-counter contracts captured, the total volume of trades captured by our sample is more than double the volume of over-the-counter contracts previously captured in voluntary reporting to the Australian Financial Markets Association though sees a broadly similar product split to that reporting.[25]

Given the high percentage of total contract volumes captured in our market sample, we consider this sample is representative of general market trends. Together, this is a reported 946 terawatt hours (TWh) of ASX traded volume and 391 TWh of over-the-counter-traded volume aggregated across all smaller retailers and larger generators and gentailers that the ACCC required the provision of data from for the 2021–22 financial year.[26] The data analysed in this chapter includes primarily contracts traded 'externally' with the market and not those traded 'internally' between generation and retail arms of vertically integrated retailers.

The information obtained makes the analysis in this chapter unique and provides a valuable insight into the actual status of the contracts market. This is especially true of the over-the-counter market, where prices and indicators of market liquidity are confidential and not disclosed publicly. In contrast, prices and aggregated market trading are publicly reported for exchange-traded contracts.

This report sets out analysis and findings that draw on material provided by market participants in response to compulsory notices issued by the ACCC. In accordance with the applicable statutory framework, we have disclosed this information where the ACCC is of the opinion that it is necessary in the public interest. This information provides important public transparency and informs policy makers of the significant and immediate issues faced by electricity customers. The ACCC considers that the electricity market is facing extraordinary circumstances and there are major policy questions being considered in market reform processes. We have disclosed certain information at a level of granularity that is in the public interest in these circumstances. We consider that publication of this information is important to inform public consultation and consideration of reform by policy makers, and its release

---

24 Analysis against ASX volumes for the 2021–22 financial year. AER, *State of the energy market 2022*, Commonwealth of Australia, 29 September 2022, accessed 8 November 2022, figure 2.9.

25 Analysis against over-the-counter contract volumes reported by Australian Financial Markets Association for 2021–22. Australian Financial Markets Association, *The Australian Financial Markets Association Electricity Derivative Turnover Report 2020–2021*, Australian Financial Markets Association, accessed 8 November 2022.

26 Note that reported trades may include both buy and sell legs of the same trade.

aids us in responding to the request from government for the ACCC to make the factors influencing prices in electricity markets fully transparent.[27]

The data collected by the ACCC forms the basis for the analysis presented in the following sections.

3.1.5. Liquidity of historic contract types may reduce as the energy sector transitions away from baseload generation

The contracts market in the National Electricity Market is purely financial in nature, however, these contracts are commonly underpinned by physical generation and storage assets. This is particularly due to the high market spot price cap and cumulative spot price threshold which pose financial risks to the participants selling contracts if they are not also earning money by selling the corresponding power generation into the wholesale spot market. The transition in the power sector, namely the exit of baseload generators and the entry of more renewables and a mix of 'firming' capacity, is anticipated to impact the types of financial contracts offered in the market.

For example, flat swap contracts are mostly offered by market participants with baseload generation assets, primarily coal and combined-cycle gas plants. This makes sense, as baseload generators are typically able to generate at a constant volume in all periods and are therefore able to defend a flat contract shape.

The exit of baseload generators may result in a decline in availability and in turn liquidity of flat swaps. This is because the replacement plants are expected to be, a mix of generators: variable renewables, firmed with a mixture of varying duration firming capacity. None of these plants may offer as many flat swap contracts as the baseload plants they replace, due to their different generation profiles. For example, renewables plants may offer flat swap contracts at volumes that these plants can be reasonably confident of generating to, which for solar PV would be zero.

However, different contract types could be bundled to continue to enable retailers to obtain the contract shapes they need to continue to hedge their loads. In this regard, the transition of the generation mix need not automatically imply a reduction in contracts market liquidity, provided new contract types emerge along with an ability to bundle different contract types such that retailers can hedge their loads.

The transition in the generation mix would ideally occur in an orderly fashion, to enable the development and emergence of different contract types. However, a rapid and disorderly transition could stunt this development, where new contract types may not be developed and offered to the market at the same pace as baseload plant closures. This could increase the level and volatility of both spot and forward electricity prices, result in lower contracts market liquidity, and increase retailers' wholesale energy costs. This dynamic could be exacerbated by an increase in margin requirements, further reducing contract liquidity and increasing retailers' energy costs.

The June 2022 energy event is an example, albeit an extreme one, of a disorderly transition at pace: significant reduction in baseload plant availability, high energy prices and volatility, and higher margin requirements resulting in a less liquid contracts market.

It is therefore imperative that the move to a more decarbonised National Electricity Market be managed in an orderly fashion to minimise adverse impacts on prices, volatility, and contracts market liquidity. This in turn can minimise the potential increase in barriers to entry or expansion in the retail and generation sectors, as well as the potential increase in retailer

[27] Ministers – Treasury portfolio, *Letter to ACCC on electricity and gas price rises*, Ministers website, 6 June 2022, accessed 9 November 2022.

exits, that may otherwise arise from a disorderly transition as demonstrated by events in the National Electricity Market and internationally during 2022.

3.1.6. Contracts market evolution can promote an orderly transition

An orderly transition in the National Electricity Market involves both physical and financial aspects:

1. *Investments in physical infrastructure*: volatility-dampening infrastructure such as storage, interconnection (more transmission), and demand response, with this investment happening in a timely fashion.
2. *Contracts market evolution*: ensuring the structure of hedging contracts evolves to reflect the changes in the generation mix needed for the National Electricity Market's decarbonisation, to facilitate investments in, and de-risking of, new-entrant technologies.

These 2 dynamics can be mutually reinforcing: contracts market evolution can lower barriers to entry for new forms of dispatchable capacity – especially batteries for which the existing structure of hedging contracts is ill-suited – and result in increased investment in these new forms of dispatchable capacity. Furthermore, contracts market evolution can reduce the need for new-entrants to integrate vertically or horizontally, which can promote competition and competitive outcomes alongside an orderly transition.

Innovative contract structures are being developed to enable variable renewable energy generators and storage assets to step into the contracts market and offer new products to retailers. However, these remain uncommon and account for an immaterial proportion of total contract volumes traded. This product innovation has so far been exclusively observed in the over-the-counter market.

As demand for these innovative products grows (or conversely as availability of traditional baseload products declines), we would expect to see a greater diversity and higher uptake of them emerging. If exchanges continue to offer only the more traditional products, this may result in a shift towards over-the-counter contracting. Competition amongst exchanges, which has been enabled since FEX Global began supporting the trade of electricity derivatives in 2022, may encourage the adoption of new exchange-traded products in the future, potentially including some more innovative contract products (as, for example, we have seen $500/MWh cap contracts being offered by FEX Global).

3.2. Key findings

3.2.1. Contract markets dynamics were impacted by high spot market prices in 2022

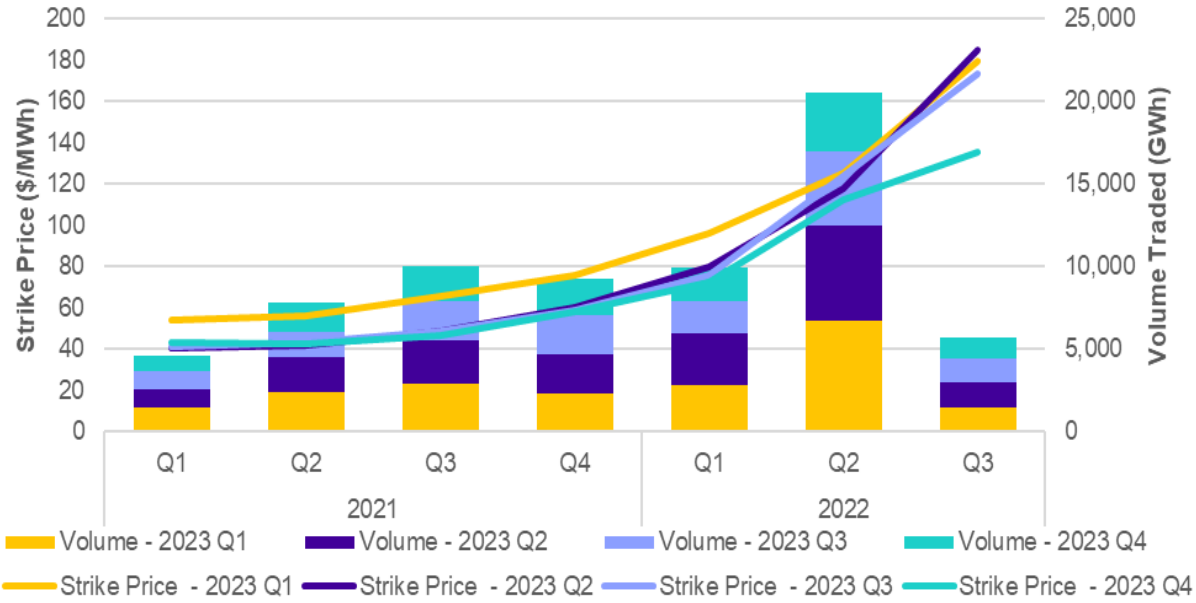
Contract prices have spiked in mid-2022 in response to the June 2022 energy events

The first half of this calendar year saw high and volatile prices in the electricity wholesale spot market. The contracts market expects this spot market trend to persist as futures contract prices for almost all periods have increased. Figure 3.3 shows base swap contracts for quarter 1 to quarter 4 2023, all showing steep increases through 2022. Futures prices for all products have increased in 2022, on average 119% ($64.01/MWh) higher for base swap products in 2022 compared to 2021. It has impacted both energy contracts trading on the ASX and over-the-counter.

High prices are being driven by supply-side issues, namely global commodity markets and local supply chain issues. Global commodity prices, particularly for gas and thermal coal have multiplied in the wake of Russia's war on Ukraine, while unplanned coal unit outages and flooding of coal mines and logistic routes have disrupted domestic thermal production. These issues were exacerbated by higher energy demand as parts of the country emerged from an extended period of lockdown and extended periods of cold weather in the winter, while renewable energy projects experienced commissioning delays and reduced generation output.

Figure 3.3: Futures contract prices for almost all periods have increased

Average strike price and volume traded for external purchases of base swap products for Q1 to Q4 2023



Source: ACCC analysis of hedging contracts data.
Note: External trades only. Quarter 3 volumes low due to incomplete data for that quarter.

Trading activity across ASX and over-the-counter contracts was impacted by increasing margin requirements

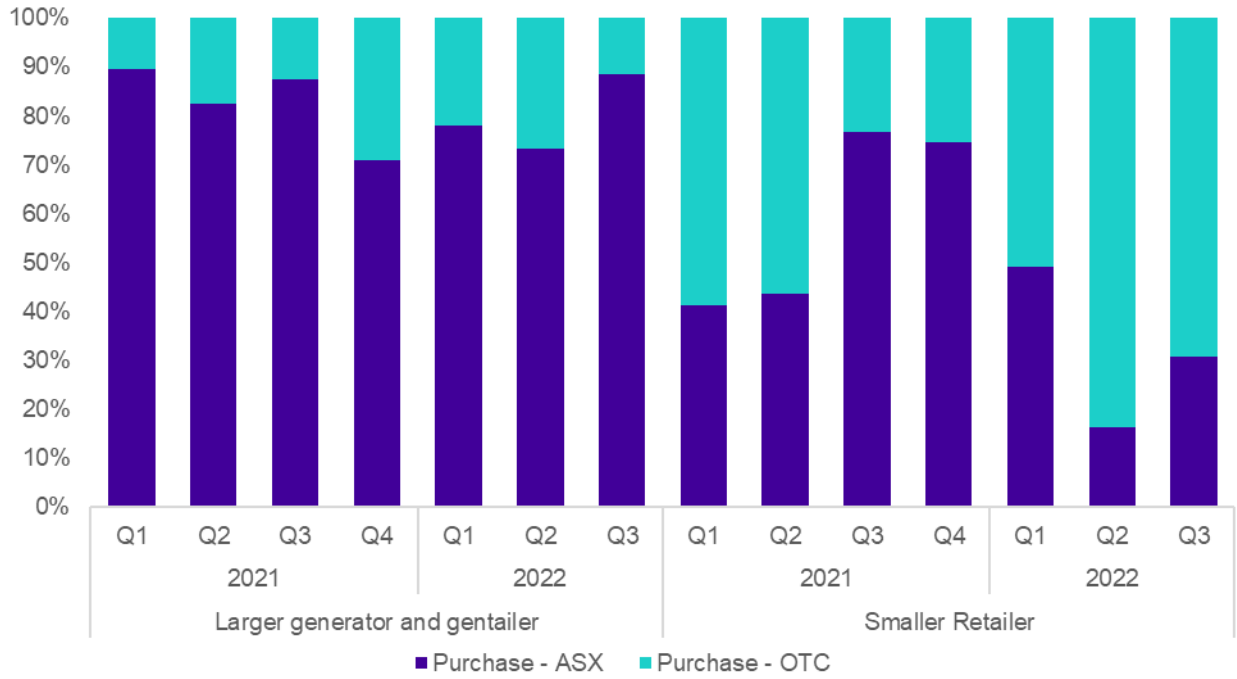
High spot and contracts market prices increased the credit requirements for all market participants as discussed in sections 3.2.5 and 3.2.6. When entering a contract on the ASX, there is a requirement to post initial margin. If wholesale prices change, variation margin can be sought for existing hedging contracts (see Box 3.2 for an explanation of margin requirements).

These increased credit requirements impose costs on parties to the contract and limit the amount of trading that participants are financially capable of. This has implications for both larger and smaller retailers, as well as the brokers and clearing participants that facilitate trading on exchanges.

Most hedging contracts are traded on the ASX, with a relatively smaller portion being traded in the over-the-counter market. Figure 3.4 shows that larger generators and gentailers buy most of their contracts on the ASX. Their trades comprise the bulk of all trading volumes. In comparison, smaller retailers work across both markets. They use the over-the-counter markets significantly more, especially for non-standardised products that are not available on the ASX, such as load following swaps. This can be due to a need for additional risk mitigation, or decreased trading operational requirements compared to that provided by standardised products. Notably, smaller retailers became increasingly reliant on the over-the-counter market in 2022, which is discussed further in Section 3.2.7.

Figure 3.4: Larger generators and gentailers buy most of their contracts on the ASX while smaller retailers work across both the ASX and over-the-counter markets

Percentage of purchased volumes of OTC and ASX products for larger generator and gentailers, and smaller retailers, Q1 2021 to Q3 2022



Source: ACCC analysis of hedging contracts data.
Notes: External trades only and excluding load following swap contracts. OTC = over-the-counter.

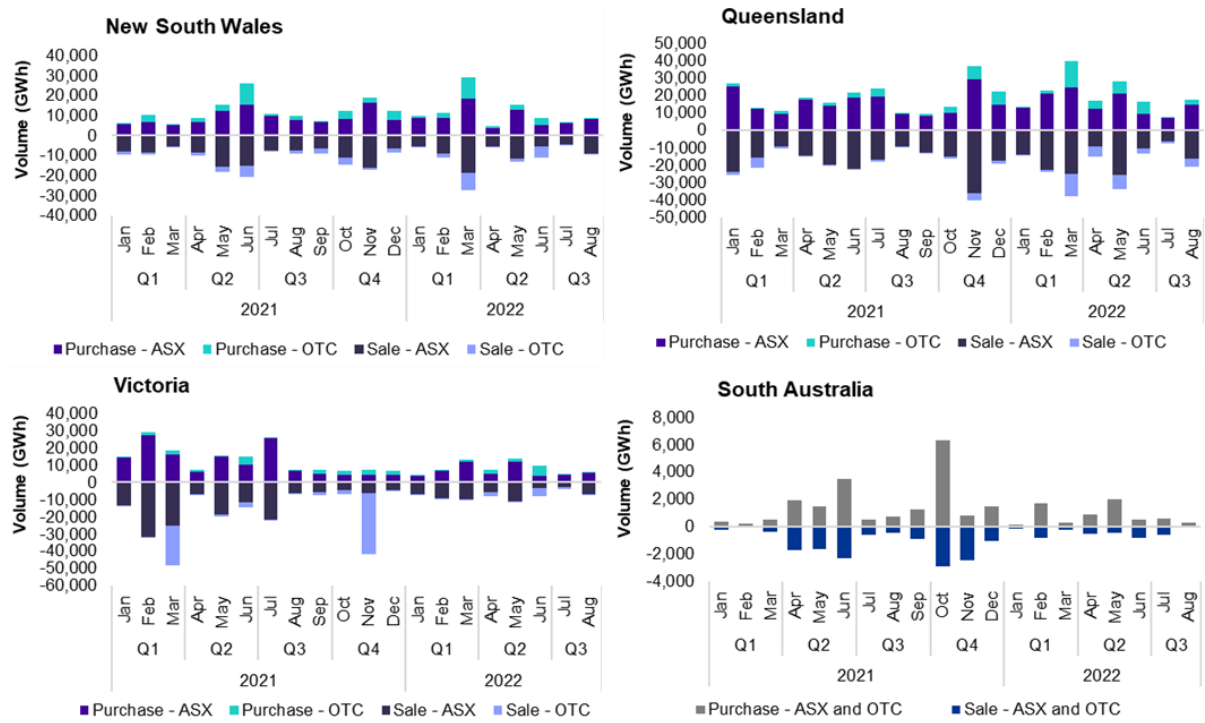
3.2.2. Trading activity decreased in most regions in 2022

Trading activity decreased in most regions in 2022 compared with 2021, as seen in Figure 3.5. In New South Wales, Victoria and Queensland, this decrease is particularly apparent in June and July 2022 compared with the same months in 2021. The volumes traded in South Australia are generally much lower than the other states. This is particularly true for ASX trades, with over-the-counter trades making up a strong majority of the volume in most months. The volatility in South Australia makes month by month comparisons difficult, however, volumes traded in June in South Australia were also much lower in 2022 than 2021.

Some of this reduced trading activity in 2022 could be directly explained by the events that caused multiple coal power stations to be offline during that period, as coal generators typically trade large volumes of the most common hedging instruments to cover their generation costs. However, it is likely that conditions in the spot and hedging contracts markets impacted the behaviour of a wide variety of market participants, significantly contributing to the decrease in overall trading activity.

Figure 3.5: Trading activity decreased in most regions in 2022 compared with 2021

Volume of ASX and OTC base swap contracts bought and sold in 2021 and 2022 for Q1 to Q4 2023 delivery periods, by NEM region



Source: ACCC analysis of hedging contracts data.
Note: External trades only. OTC = over-the-counter.

3.2.3. Smaller retailers and larger generators and gentailers play different roles in the contracts market

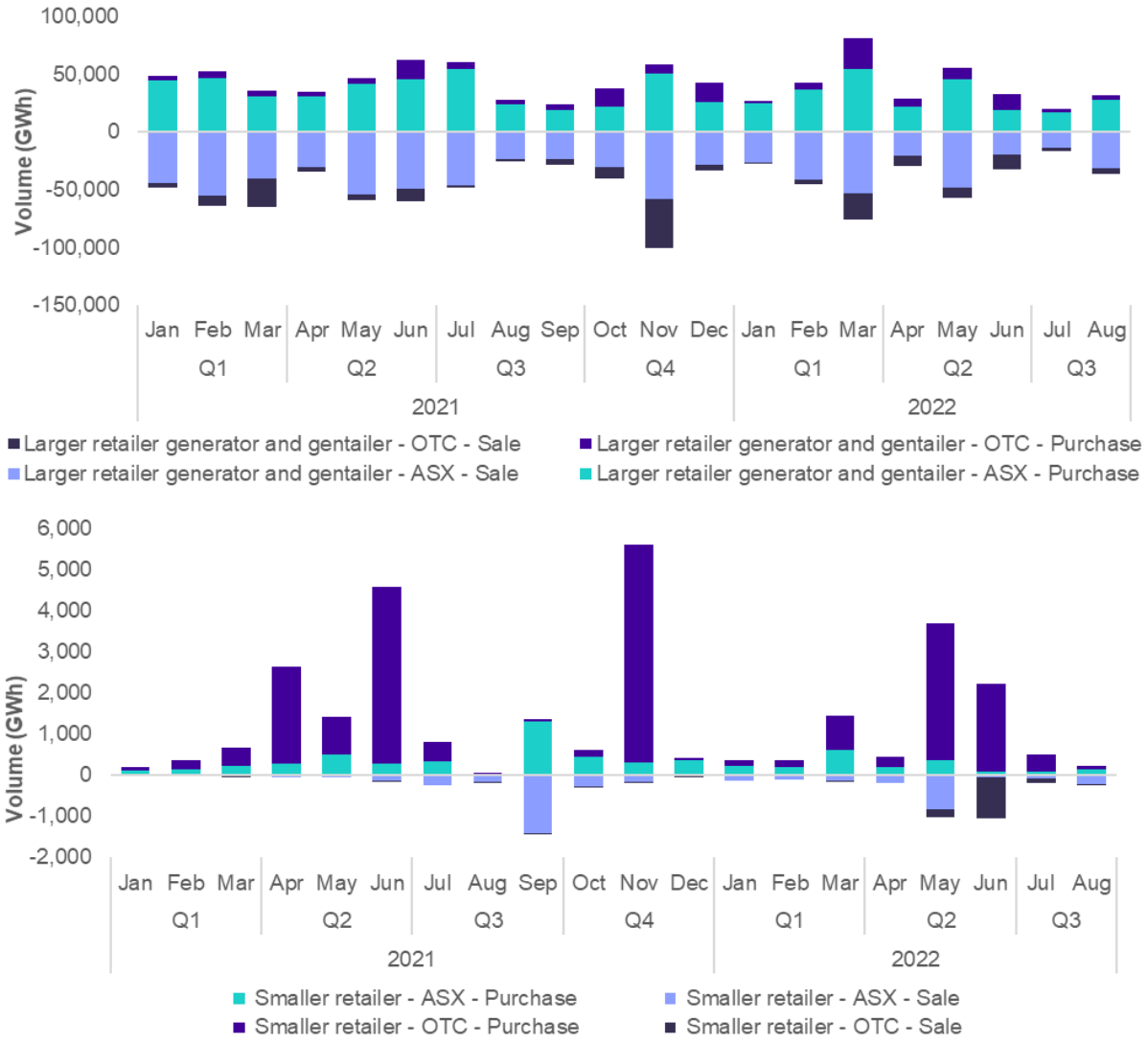
As noted in Section 3.1.4, the ACCC gathered information from a cohort of retailers broadly categorised as smaller retailers, which are standalone entities, and larger generators which have minimal retail operations and larger retailers with generation assets (gentailers). The different business models of companies in these groups lend to each cohort playing a different role in the contracts market to meet their hedging needs, both for their retail and

generation books. This includes what financial market they trade on (or the counterparties they trade with), what products they trade, and how frequently and consistently they trade.

Larger generators and gentailers buy and sell contracts in a relatively equal proportion (noting the sample also own generation assets), compared to smaller retailers who are predominantly purchasing contracts to hedge their retail load. Larger volumes of discretionary trading are expected by larger generators and gentailers to optimise their financial position against market conditions. This also provides liquidity to the marketplace. There is a more irregular purchasing pattern and a wider range of volumes purchased by smaller retailers compared to larger generators and gentailers (see Figure 3.6).

Figure 3.6: Larger generators and gentailers buy and sell contracts in a relatively equal proportion compared to smaller retailers

Volume of contracts traded on the ASX and OTC market for larger generators and gentailers (top) and smaller retailers (bottom) in 2021 and 2022



Source: ACCC analysis of hedging contracts data.
Note: External trades only. OTC = over-the-counter.

Figure 3.6 also shows that larger volumes of electricity hedging contracts are traded on the ASX compared with the over-the-counter market, which is consistent with a growing market

trend towards the ASX over the last decade.[28] Smaller retailers tended to buy a significantly higher proportion of over-the-counter contracts relative to ASX contracts, which is in contrast to larger generators and gentailers.

This could be due to difficulty in obtaining sufficient credit to purchase hedging contracts (discussed in Section 3.2.5) and the preference of smaller retailers for some bespoke contracts only available on the over-the-counter market, such as load following swaps, may contribute to this pattern.

On an absolute volume basis, larger generators and gentailers buy more over-the-counter volumes than smaller retailers, reflecting their relative market share.

3.2.4. Retailer hedging strategies are diverse

A diverse range of contract types, purchase timing and the percentage of load hedged was found across the larger and smaller retailer groups.

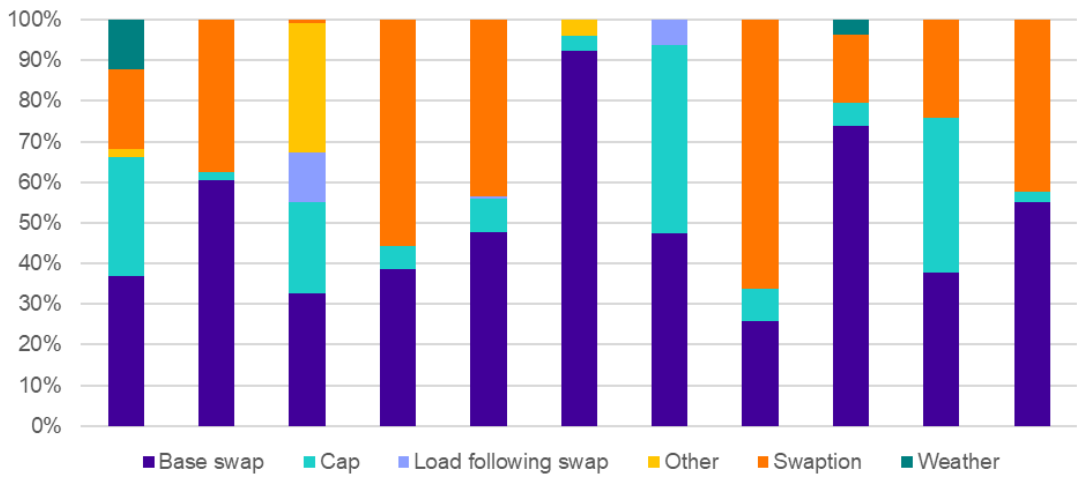
This is to be expected for larger generators and gentailers as the sampled participants comprise a diverse range of business models. For instance, there are generators with a limited retail book, larger retailers with a handful of generation assets, and retail businesses with portfolios of generation assets across diverse geographies in the National Electricity Market.

The volume and type of hedging products these larger generators and gentailers buy and sell on the market is netted against what is covered by each business' own (physical) generation portfolio (referred to as vertical integration).

Figures 3.7 and 3.8 show that all of the larger generators and gentailers we collected information from traded a combination of swap contracts, cap contracts and other products, albeit in varying volume and timing.

Figure 3.7: Each larger generator and gentailer purchased a different combination of swap contracts, cap contracts and other products

Percentage volume of external contracts bought by 11 larger generators and gentailers by contract type, January 2021 to August 2022

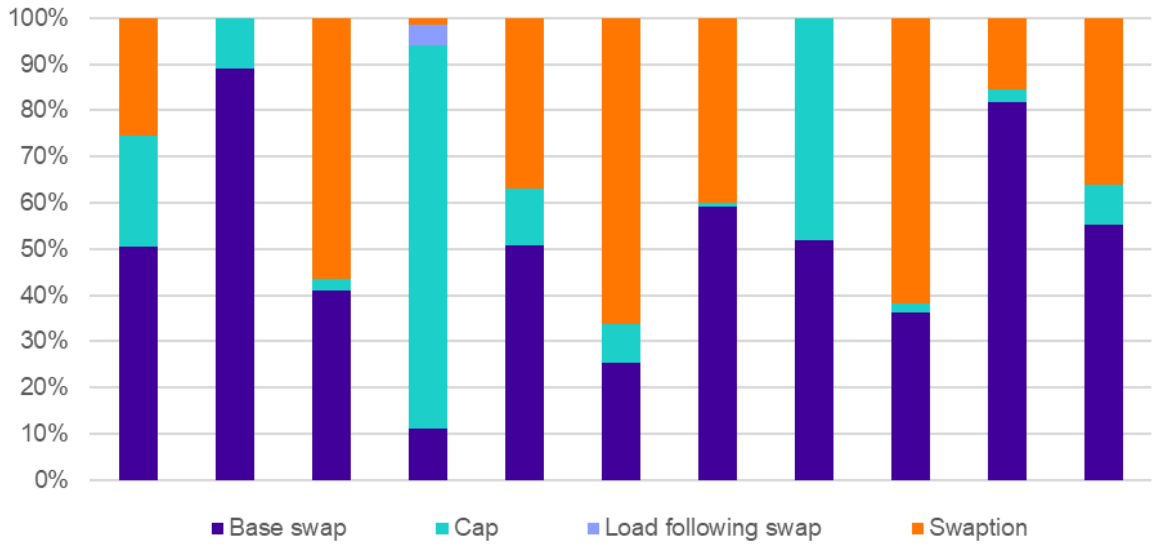


Source: ACCC analysis of hedging contracts data.
Note: Data arranged in randomised order.

[28] 2021 Australian Financial Markets Association Electricity Derivative Turnover Report shows over-the-counter contracts went from a 36% market share to less than 8% market share in the contracts market between 2011 and 2021.

Figure 3.8: Each larger generator and gentailer also sold a varied combination of swap contracts, cap contracts and other products

Percentage volume of external contracts sold by 11 larger generators and gentailers, by contract type, January 2021 to August 2022



Source: ACCC analysis of hedging contracts data.
Note: Data arranged in randomised order.

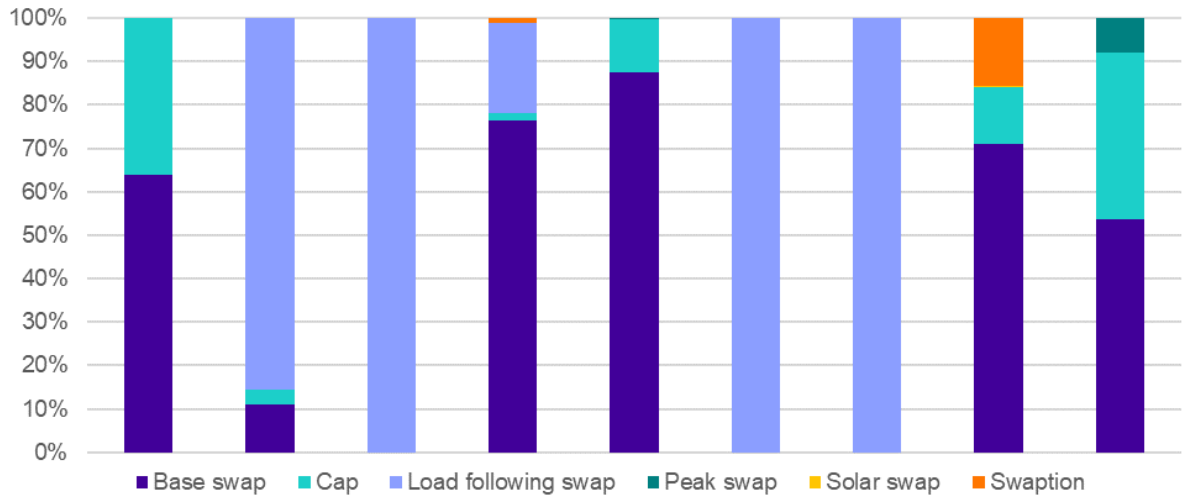
Smaller retailers are also reliant on a wide range of contract types. Figure 3.9 shows the percentage of each contract type used by 9 smaller retailers and suggests there is no 'representative' smaller retailer hedging strategy.

A reliance on load following swap contracts by around a third of respondents is observed in the data. These products provide price certainty (at a premium) for all electricity purchased and are a simple solution for smaller retailers who do not have a sophisticated trading desk to build up a portfolio of hedging contracts to adequately cover their customer's load.

The smaller retailers who aren't using load following swap contracts have purchasing strategies that are more in line with larger generators and gentailers, albeit with less options in their portfolio.

Figure 3.9: Smaller retailers are also reliant on a wide range of contract types

Percentage volume of contracts purchased by 9 smaller retailers, by contract type, January 2021 to August 2022



Source: ACCC analysis of hedging contracts data.
Note: Data arranged in randomised order.

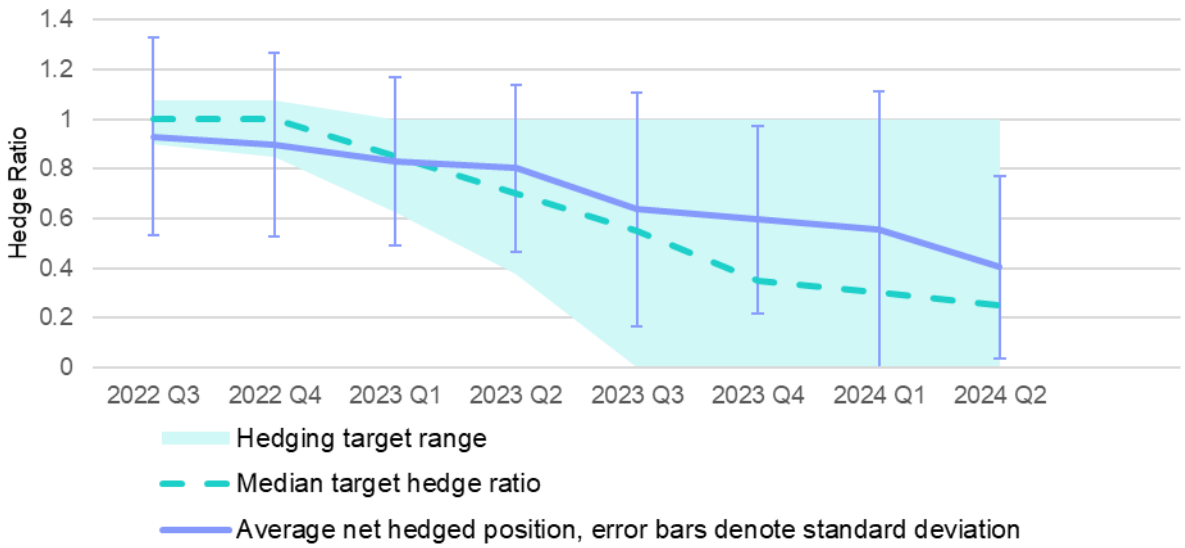
The hedging time horizon of smaller retailers and the proportion of their load that is hedged against spot prices also varied between participants. Figure 3.10 below displays the target hedge range and estimated net hedged positions for energy from the third quarter of 2022 to the second quarter of 2024.[29] A hedge ratio of 100% implies a retailer is fully hedged for the period (no residual exposure to spot market prices), whereas a ratio of 50% indicates half the projected retail load is hedged and the other half is not yet hedged. It is typical for retailers to increase their hedge ratio as the period that the contract covers (the contract 'delivery period') approaches. This allows for 'progressive procurement' – the practice of purchasing hedging contracts consistently over time to meet future load.

A retailer's target hedge ratio may vary from their net hedged position at a given point in time as demonstrated by the difference between the solid line and dashed line in the chart.

[29] Net hedged position here refers to the retailer's hedge ratio after accounting for contracts bought and sold.

Figure 3.10: The level of hedging targeted by different retailers over the period varied

Average and standard deviation of hedged position of smaller retailers, and target hedge ratio, Q3 2022 to Q2 2024



Source: ACCC analysis of hedging contracts data. Figure shows smaller retailer hedging target range, average net hedge position with standard deviation bars and median target hedge ratio values.
Note: Analysis captures a subset of smaller retailers the ACCC collected information from.

The level of hedging targeted by different retailers over the period varied, with the observed range relatively tight across participants in quarter 3 2022 at between approximately 85–110% and becoming progressively wider for each later-dated quarter. By quarter 2 2023, the range widens to 0–100% with a median target ratio of around 60%. This widening across retailers is driven by the fact that some target a 100% hedged position over a 24-month forward-looking period (8 quarters ahead) while others reported strategies involving little to no hedging further than 12 months out (4 quarters ahead).[30]

The ACCC confirmed through retailer feedback that they were able to meet their target hedge ratios over the period examined. However, this does not demonstrate that smaller retailers universally hold positions exceeding their contracting needs (for instance, a 'long' contract position), as indicated by the large standard deviation from the average hedged position displayed in Figure 3.10.

3.2.5. Access to the ASX via brokers and clearing participants is emerging as a critical issue

Brokers and clearing participants play a key role in facilitating exchange trading in the market. Brokers facilitate the buying and selling of exchange-traded contracts by matching buyers and sellers and are often used by smaller market participants as a means to access ASX contracts in volumes typically too small to deal directly with clearing participants.

Clearing participants play a critical role in the settlement of trades, and act as counterparties to transactions on exchanges (such as the ASX). To trade on the ASX, market participants

[30] Values above 100% in Figure 3.10 do not automatically imply retailers are 'over hedged'. Rather it is likely a reflection that retailers' stated hedge ratios can and do focus on a different measure of forecast load than the average forecast load used in calculating the 'actual' hedge ratio. Also, that the data collected on retailer hedges include a range of product types (for example, both swap and cap contracts, which offer varying levels of price certainty for a given volume. Such different measures include maximum forecast load.

buying or selling ASX contracts tend to engage with clearing participants via brokers (noting some clearing participants also act as brokers).

As of November 2022, the ASX listed 6 Australian electricity brokers on its website, and 5 ASX 24 clearing participants supporting Australian electricity derivatives trading.[31] Our analysis demonstrates that in practice, over the period January 2021 to August 2022, almost all trading by retailers was concentrated to just a small number of brokers and counterparties.

The responses of the sampled cohort of smaller retailers demonstrated that a single broker facilitated more than 85% of purchased ASX volumes for these retailers, meaning most trading for these smaller retailers was dependent on one broker and its clearing participant to facilitate access to the ASX.

The ACCC's analysis found that the level of concentration is similar for medium and larger, vertically-integrated, retailers. A large proportion of ASX electricity derivative contracts were cleared by a single clearing participant.

The concentration of brokers and clearing participants servicing electricity retailers in the National Electricity Market is a key finding of this work, and an emerging challenge for the market in 2022.

One clearing participant has decided to exit clearing all energy futures and options contracts and has advised clients to transfer positions to an alternative clearing participant. This clearing participant has stated they will not reconsider clearing energy futures and options contracts on the ASX.

Another clearing participant who clears a large proportion of ASX derivative electricity contracts is conscious of its market share, and is restricting the further expansion of its clearing customer base for electricity futures in Australia (that is, not extending its current exposure). This clearing participant does not think it is prudent from a risk perspective to further expand its clearing customer base.

ACCC market engagement indicates that these decisions are largely a commercial response based on excessive market risk and corresponding counterparty credit risk. In particular, clearing participants require daily cash margining from market participants or their brokers, to manage credit default risk. The exiting clearing participant made the decision to exit given the margining structure relating to energy futures and options contracts left it unable to satisfactorily manage its risk. These margining requirements, which include the margining requirements of the ASX as well as any additional requirements of the clearing participant, are tied to the value of futures contracts. As futures contract value has increased through 2022, margining requirements, both initial and variation, have increased sharply raising the risk of retailers defaulting and therefore the cost and credit risk borne by brokers.

For larger generators and gentailers, this is challenging as clearing participants and their brokering services are considered market makers, ensuring liquidity in the ASX, and supporting anonymity of buyers and sellers in the market. Further, clearing participants and brokers are required by larger generators and gentailers for trading ASX contracts – while larger participants trading larger volumes may have the scale to engage with a number of these intermediaries, they nonetheless remain dependent on these intermediaries remaining in the market and trading.

In many cases for smaller retailers, the exit of the main clearing participant which facilitates their ASX trading makes the use of ASX-traded products for hedging more challenging (and potentially inaccessible). Our market engagement indicates that brokers working with smaller

[31] ASX Energy, *ASX Commodities Clearer Contacts*, ASX Energy website, 2022, accessed 8 November 2022.

retailers may have difficulty engaging with alternative clearing participants based on scale (may be too small to meet clearing participant requirements) and consistent risk evaluation and management within the current market.

This forces retailers experiencing broker limitations to move to over-the-counter contracts. This is seen in the contracts data from retailers, summarised in the next section.

The steep increases in prices for ASX-traded products through 2022, and the subsequent rapid increases in margining requirements from the ASX passed through to clearing participants and brokers, ultimately faced by retailers, appears to have been a major challenge faced by retailers in 2022. For smaller retailers, this challenge manifested itself as constraint in the availability of, and access to, ASX-traded contracts, noted ahead of other potential hurdles such as price or prudential requirements. For larger generators and gentailers, the increase in margining requirements pushed many up against internal risk limits and presented an exposure some sought to address with reduced ASX traded volumes.

It is in the interest of retailers and the competitive retail market that clearing participants remain active to facilitate trading of electricity derivatives on the ASX. FEX Global has a partnership with Chicago Mercantile Exchange Clearing to provide clearing services for FEX Global derivatives and the question of access to additional and alternative clearing participants will become more relevant as interest in this exchange grows.

Smaller retailers reduced activity on the ASX, due to access challenges

The cohort of smaller retailers we collected information from told us that ASX contract trading has been a significant and growing challenge through 2022.

Most of the sampled smaller retailer cohort reported they were trying to attain ASX futures contracts in 2022. Of those retailers, all of them identified that accessing ASX contracts has been challenging, due to changes in conditions or limitations imposed by their respective brokers and related clearing participants.

Five smaller retailers provided timelines of their challenges in accessing ASX futures contracts in 2022. Of these, 2 reported that they were first impacted by changes to conditions for accessing ASX futures contracts in late March 2022. An additional 3 smaller retailers recounted that they first faced new conditions in May 2022. Further incremental changes to conditions were reported across the period May to mid-September 2022.

Smaller retailers reported that conditions and requests imposed either by their broker-clearer, or alternative providers in the market, included:

- freeze on new retailer accounts, while some retailers were advised by their existing broker-clearer that services would be limited to contract ‘close-out’ only
- introduction of margin limits, limiting the aggregate value of trades a retailer can execute
- introduction of initial margin ‘multipliers’, which imposes additional collateral requirement to ASX requirements
- requests to organise exchange for physical contracts (that is, transferring ASX contracts to over-the-counter contracts) to reduce margin positions
- restriction on retailers entering longer-term contracts
- additional fees for clearing service provision.

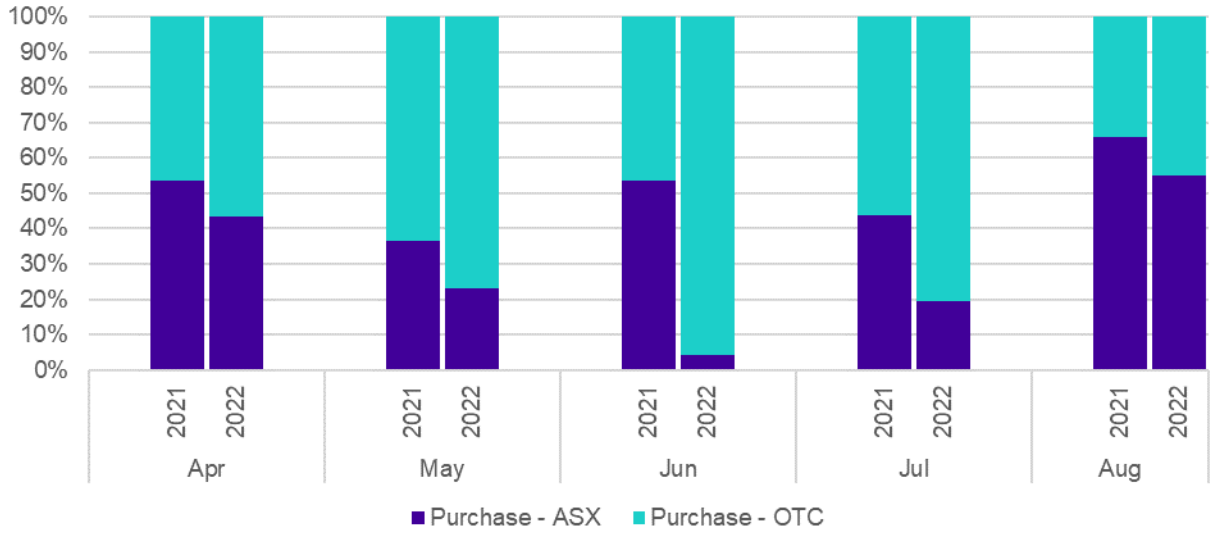
Data on volumes of ASX contracts purchased by smaller retailers through 2021 and 2022 reflect these challenges in accessing ASX contracts in 2022. As illustrated in Figure 3.11, ASX purchases declined in 2022 relative to 2021, especially when comparing quarter 2 in

each year. As discussed in Section 3.2.1, over-the-counter contract purchases for smaller retailers increased during this time.[32]

The sample of smaller retailers appeared to be able to procure hedging contracts in the first half of 2022 for future periods and challenges faced in accessing ASX contracts were not identified as leaving positions unhedged.

Figure 3.11: The percentage of contract volumes on the ASX purchased by smaller retailers declined in 2022

Percentage volume of ASX and OTC contracts purchased by smaller retailers, monthly comparison of 2021 and 2022, April to August



Source: ACCC analysis of hedging contracts data.
Note: External trades only and excludes load following swap contracts.

3.2.6. Larger generators and gentailers reduced contract offers on the ASX and over-the-counter

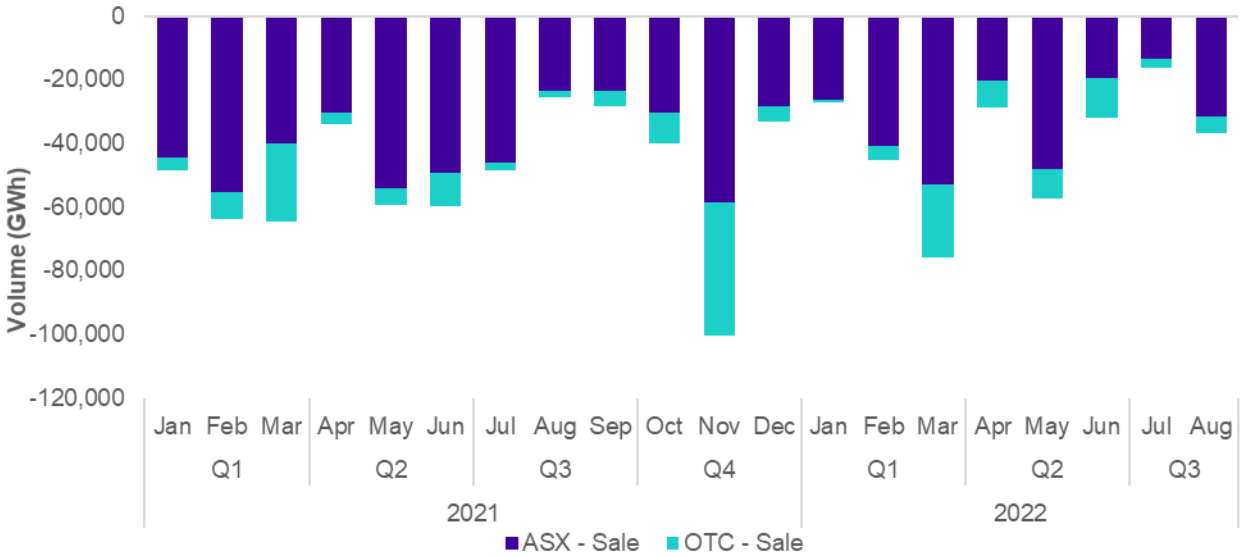
Some larger participants have reduced contract sales on the ASX in 2022

The volumes of contracts sold on both the ASX and over-the-counter markets saw a reduction of 30% on average between January and August of 2022, relative to January and August of 2021. Despite the drop in total volumes, the relative proportion of contract volumes sold on the ASX and over-the-counter markets did not materially change (see Figure 3.12 and Section 3.2.7).

[32] 2021 proportions based on full 2021 calendar year; 2022 proportions based on January to August 2022.

Figure 3.12: The proportion of contract volumes sold on the ASX and over-the-counter markets did not materially change

ASX and over-the-counter volumes sold between January 2021 and August 2022



Proportion of contract sales	ASX	OTC
2021	74%	26%
2022	75%	25%

Source: ACCC analysis of hedging contracts data.
Notes: External trades only and excludes load following swap contracts. Volumes traded filtered for sold, negative volume denotes a sale while positive volume denotes a purchase. OTC = over-the-counter.

Seven individual larger generators and gentailers indicated that they reduced contract volumes offered on the ASX in 2022. In many cases, a key driver of this decision was to mitigate the challenge in meeting ASX margin requirements.

The impact of higher spot market prices and increased spot market price volatility increased margin requirements for larger generators and gentailers.[33] In some cases, this caused them to near or to reach their trading and cashflow limits, in turn requiring them to reduce, or not increase, their contract positions to stay within these limits.

One retailer noted the increases in the forward curve for futures contract prices have 'imposed an ever-growing collateral constraint' and 'exposed it to unprecedented initial margins and variation margins.'

[33] The ASX calculates initial margin requirements using the Standard Portfolio Analysis of Risk (SPAN) framework. By using a set of pre-determined parameters SPAN assesses what the maximum potential loss will be for a portfolio of derivative and physical instruments over a one-day period (typically). The portfolio is stress tested for gains and losses under different market conditions

Other reasons identified for changes to vertically integrated larger retailer contracting approaches in 2022 include:

- unplanned outages: a number of coal and gas power stations faced unplanned outages, which meant lower generator availability and less capacity to sell contract volumes against those assets (if not already sold)
- fuel supply: supply chain interruptions and high fuel prices affected coal and gas supplies to some generators, reducing the capacity at which some generators were run, and therefore reducing the capacity contracts could be sold against (if not already sold)
- financial management challenges: a number of larger generators and gentailers were temporarily impacted by processes to secure finance
- withdrawal of other participants: fewer participants, along with heightened volatility, were found to render exposures difficult to manage.

High over-the-counter cap strike prices emerge, with cap sellers indicating this elevated price will continue to be sustained

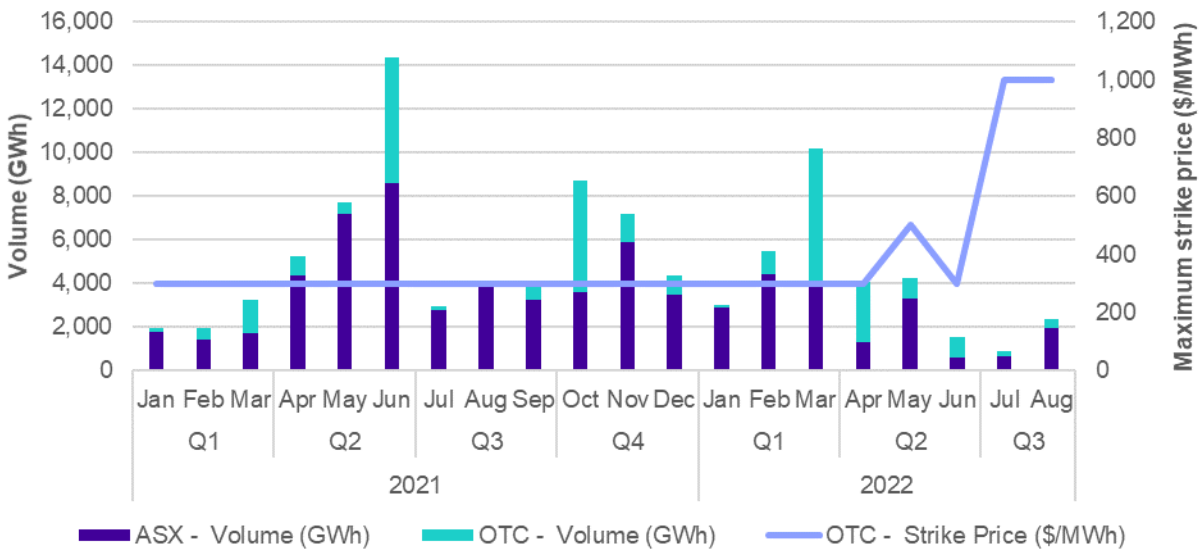
A cap contract is an options contract that places a ceiling on the price a buyer will pay for electricity in the future if executed (see Box 3.1 for more information). This is considered an insurance style product, providing retailers protection against high priced periods. The standard ASX-traded cap product has a set strike price of $300/MWh.

Cap contract trading has also shifted from the ASX to over-the-counter in 2022. As prices have shifted materially upward in 2022, the difference between average wholesale prices and the cap strike price has narrowed, compromising the purpose of the cap contract. Further, as the cost of running a generator to support a sold cap contract (including fuel costs) has risen, it is increasingly difficult for generators or vertically integrated retailers to offer traditional $300/MWh cap contracts.

Trade data on cap contracts sold by larger generators and gentailers suggests volumes on the ASX decreased in 2022 relative to cap contracts traded on the over-the-counter market (see Figure 3.13). In response, some larger generators and gentailers have sold over-the-counter cap contracts with strike prices above $300/MWh. The decline in cap product transactions coincided with new over-the-counter cap products being sold at higher strike prices. The data analysed shows a small number of cap contract sales executed with strike prices at above $300, all occurring in 2022.

Figure 3.13: Cap contract sales declined in 2022, while a small number of transactions for more than $300 cap contracts emerged from quarter 2 2022

Volume of ASX, and volume and maximum strike price of over-the-counter cap contracts, sold in 2021 and 2022



Source: ACCC analysis of hedging contracts data.
Note: External trades only and excludes load following swap contracts.

All over-the-counter cap contracts traded in 2021 were sold with strike prices no greater than $300/MWh. However, larger generators and gentailers began offering cap contracts with price thresholds higher than $300 in April 2022.

One participant stated that they now aim to only offer cap contracts with a strike price of at least $500/MWh. Reasons for this decision were cited as 'learnings from the May–July energy crisis', 'the prospect of increases to the administered price cap' and alignment with 'fuel costs during periods of market stress'.

A generator also noted its fuel costs were consistently higher than $300/MWh in June–July 2022, meaning it could not profitably generate to hedge the payouts on its already sold $300/MWh strike cap contracts and suffered losses on those contracts.

One generator also identified that it was likely to sell limited volumes of exchange-traded cap contracts with a strike price of $300/MWh for periods no more than 18 months in advance, while actively selling over-the-counter cap contracts in larger volumes and for longer terms. If liquidity of these standard cap contracts declines due to the reasons above, then greater availability of new, higher strike price cap contracts may become relevant to enable retailers to hedge their risks.

3.2.7. Smaller retailers have shifted further towards over-the-counter contracts

Smaller retailers became more reliant on over-the-counter contracts in mid-2022 to meet their hedging needs

While ASX contract volume data is publicly available, trends in over-the-counter contracting are less transparent.

Figure 3.14 displays over-the-counter contract volumes traded by larger and smaller retailers over the period from January 2021 to August 2022.

In aggregate, larger generators and gentailers did not substantially adjust the proportion of contracts traded on the over-the-counter market relative to the ASX in 2022 compared with 2021. A slight increase in over-the-counter volumes offered by generators was observed, but vertically integrated retailers either maintained or slightly increased the proportion of contracts sold on the ASX. This suggests a fall in overall trading activity of these larger vertically integrated players rather than their level of hedging (as discussed in Section 3.2.2).

Smaller retailers tend to conduct trading activity primarily to meet the needs of their smaller customer book. As a result, smaller retailers substituted trading on the ASX with over-the-counter trading more than larger generators and gentailers who instead engage in more discretionary trading that can be scaled back more readily.

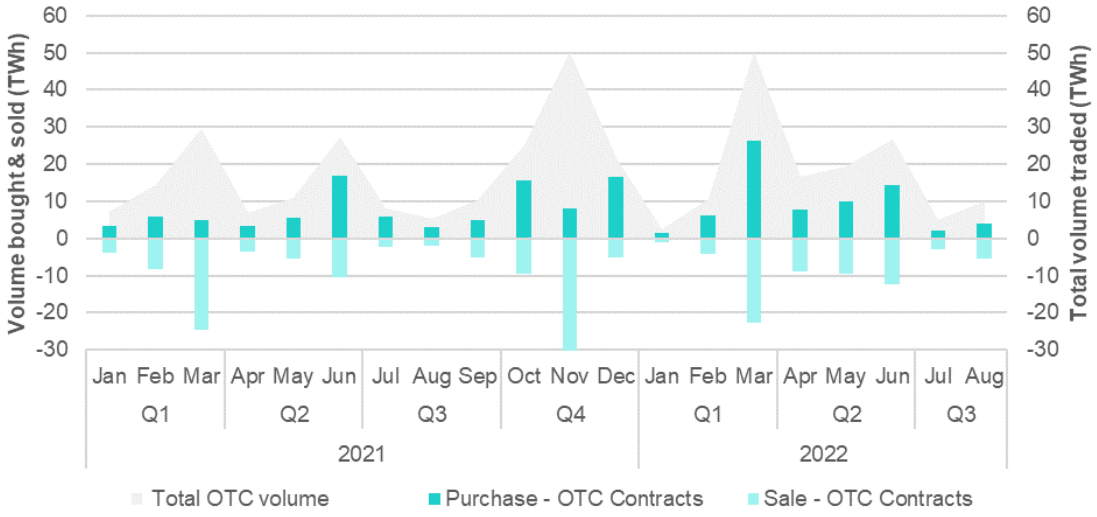
Smaller retailers displayed a 16% increase in over-the-counter purchases in 2022 (excluding load following swaps).[34] This increase in over-the-counter purchasing was especially apparent in quarter 2 2022, which saw a 33% increase from quarter 2 2021. The smaller retailer cohort has entered into over-the-counter contracts with 15 counterparties in 2022 to date, up from 9 in 2021, highlighting an increasing number of sellers in the over-the-counter market.

[34] Note that this trend does not apply for load following swap contracts. These contracts have been excluded from the comparison as our analysis indicated that they were utilised exclusively by a small subset of retailers, with purchases made in larger volumetric parcels throughout 2021 and 2022.

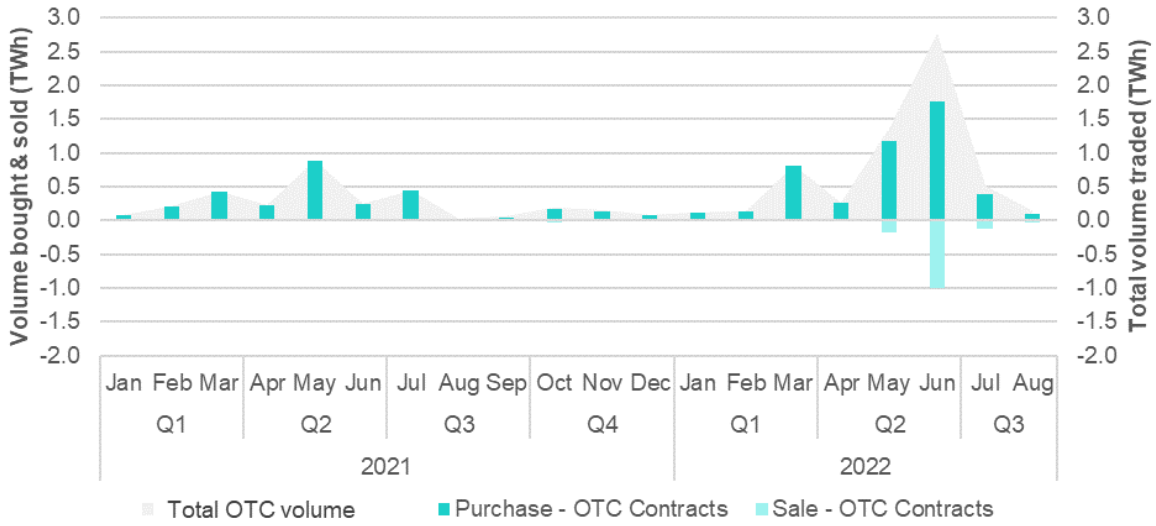
Figure 3.14: Total over-the-counter contracts traded indicate increasing reliance by smaller retailers in 2022 with little change to larger generator and gentailer activity.

Larger generator and gentailers, and smaller retailers OTC contract volumes bought and sold in 2021 and 2022

Larger generators and gentailers



Smaller retailers

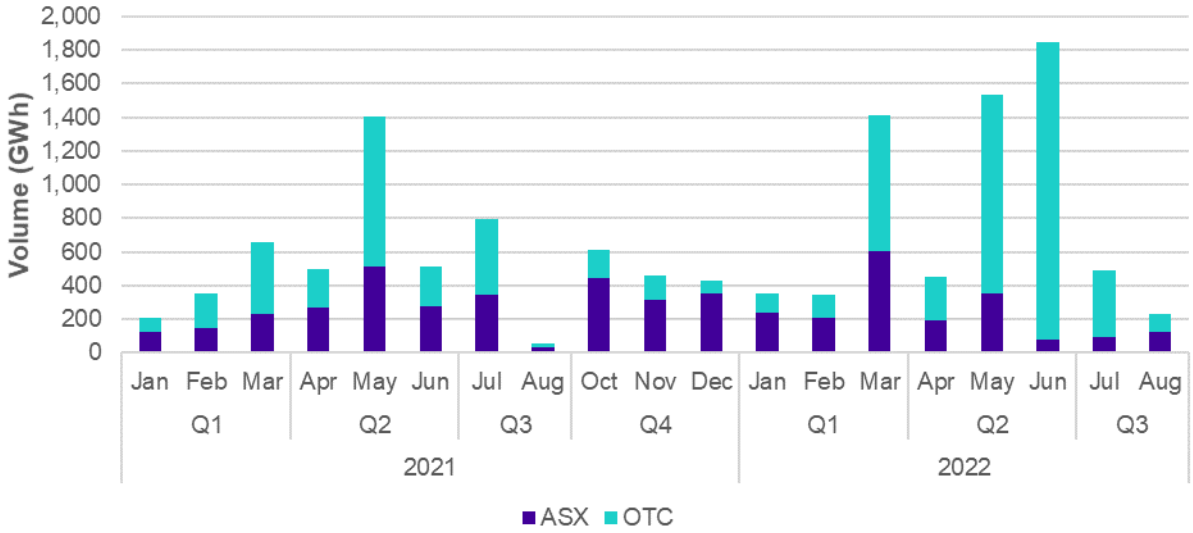


Source: ACCC analysis of hedging contracts data. Figure shows over-the-counter contract volumes purchased (positive) and sold (negative) by larger generators and gentailers and smaller retailers.
Note: External trades only and excludes load following swap contracts. OTC = over-the-counter.

In conjunction with the rise in over-the-counter contracting, smaller retailers also greatly reduced ASX purchases over the same period (see Figure 3.15). Of total contract volumes purchased in 2022, around 72% were on the over-the-counter market, while 28% were on the ASX. This compares to a more even weighting in 2021 with 41% on the over-the-counter market and 59% on the ASX.

Figure 3.15: Smaller retailer purchases of ASX contracts declined as over-the-counter purchases rose

Volume of ASX and OTC contracts purchased by smaller retailers in 2021 and 2022



Proportion of contract sales	ASX	OTC
2021	59%	41%
2022	28%	72%

Source: ACCC analysis of hedging contracts data.
Note: Excludes load following swap contracts. OTC = over-the-counter.

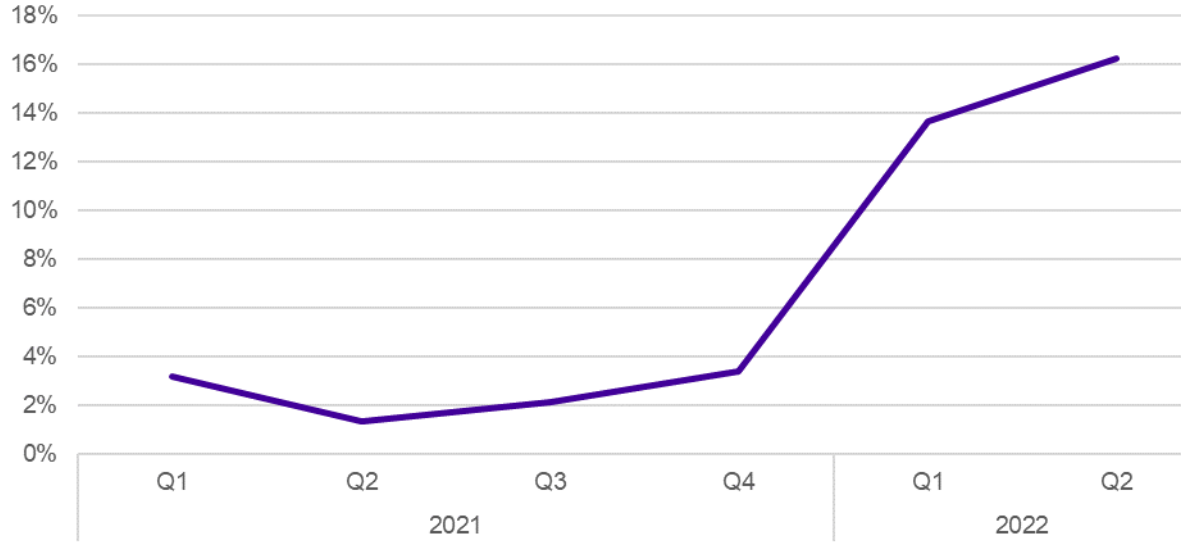
Smaller retailers were requested to exchange their ASX contracts for over-the-counter positions to reduce the credit exposure of their financial intermediaries

Given the risks and costs identified by larger generators and gentailers with regard to selling and holding ASX contracts, and likewise the requirement on smaller retailers to reduce their ASX contracted positions, the ACCC's analysis shows a large increase in the use of exchange for physical transactions in 2022 compared to 2021 as illustrated in Figure 3.16. Exchange for physical contracts are used to swap an ASX position for an over-the-counter position (see Box 3.4).

Smaller retailers reliant on brokers and clearing participants noted that this shift to exchange for physical contracts was driven by requests from financial intermediaries to reduce their exposure to rapidly increasing ASX margining requirements. By moving a contract off the ASX, the margin requirements imposed by the ASX would no longer apply and would be replaced by the terms of the over-the-counter arrangement.

Figure 3.16: Exchange for physical transactions rose in 2022

Proportion of exchange for physical contracts traded in 2021 and 2022



Source: ACCC analysis of hedging contracts data.
Note: Not all participants included in our sample indicated whether a trade was an EFP transaction. Nonetheless, we believe the increase in EFP transactions in 2022 observed in the data is representative of the general trend. External trades only. EFP = Exchange for physical.

Box 3.4: Exchange for physical transactions[35]

In the context of the electricity contracts market in the National Electricity Market, an exchange for physical transaction refers to a bilateral agreement between 2 parties which involves the swapping (or exchanging) of an ASX position for an over-the-counter position or vice-versa. The over-the-counter/ASX transaction must be for a similar amount of electricity, or a substantially similar commodity or instrument.

For example, a 1MW baseload swap contract previously bought on the ASX could be transferred to an over-the-counter contract with a specific counterparty. Conversely, a load following swap traded over-the-counter with highly specific contractual parameters could not be transferred to the ASX as there is not an equivalent contract type.

The net result depends on whether an over-the-counter or ASX futures position is being transferred:

- over-the-counter to ASX: The over-the-counter position (and inherent counterparty credit exposure) is transferred from the over-the-counter market to the ASX futures market
- ASX to over-the-counter: The ASX futures position (and ASX-determined margining requirements) is replaced with an over-the-counter position with credit exposure agreed between the 2 parties.

3.2.8. Prudential requirements have imposed an additional stress on some, but not all, smaller retailers

Retailers are participants in AEMO's National Electricity Market settlement processes, as buyers of the electricity. Retailers pay AEMO for electricity purchased to meet their load, which is then paid on to generators through a weekly settlement arrangement. This

[35] ASX Energy, *Exchange for Physical (EFP)*, ASX Energy website, 2022, accessed 8 November 2022.

settlement process exposes AEMO to credit risk, given the potential that retailers default on their payments.

To mitigate this risk, retailers are required to meet prudential requirements set by AEMO to participate in the market, such as posting collateral and providing credit support. While not immediately related to the hedging contracts market, prudential requirements are an additional potential source of financial pressure for retailers, as they require access to capital (cash, bank guarantees) and incur costs to service this capital. Further, some contract arrangements enable retailers to minimise their exposure to these requirements (contracts which establish reallocation arrangements).

Based on the sample of smaller retailers, the wholesale spot market dynamics in the first half of 2022 saw a diversity of impacts on the prudential requirements imposed by AEMO on smaller retailers.

Four smaller retailer respondents reported no material change in their prudential requirements with AEMO. For at least some of these retailers, settlement reallocation arrangements have been used to minimise these requirements. Reallocation arrangements entail both a buyer and seller in the market lodging a request with AEMO to have their financial hedging contract settled within AEMO's National Electricity Market settlement process. What this means in practice, is that when AEMO undertakes settlement of electricity bought and sold through the wholesale market, it can calculate settlement net of the transactions specified in these bilateral contract arrangements. This has the benefit of reducing AEMO's potential risk exposure from the retailer, and therefore reducing the prudential requirements imposed by AEMO.

The 5 remaining respondents identified that they had experienced material increases in the quantum of requirements. The magnitude of this rise ranged from almost doubling to a 6-fold increase in the first half of 2022.

AEMO prudential requirements were able to be met by all smaller retailer respondents, according to feedback, however these requirements did add an additional financial pressure at a time when smaller retailers were facing high spot market prices and a challenging hedging landscape.

3.2.9. Prices for commonly utilised ASX and over-the-counter futures contracts demonstrated increasing divergence in 2022

In periods of stable market prices and high liquidity, the pricing of over-the-counter products with the same structure as ASX products (for example, quarterly base swap contract) are expected to be similar. However, as contract prices increased through 2022, the price divergence increased between over-the-counter and ASX nearer-dated quarterly base swap contracts in National Electricity Market regions with reasonable levels of contract liquidity(see Figure 3.17).[36] While the direction of this divergence varied (some over-the-counter contracts traded at a discount and some at a premium compared to their ASX equivalents), in general over-the-counter swap contracts traded at a premium to ASX swap contracts in 2022. This trend is outlined in detail in the following section.

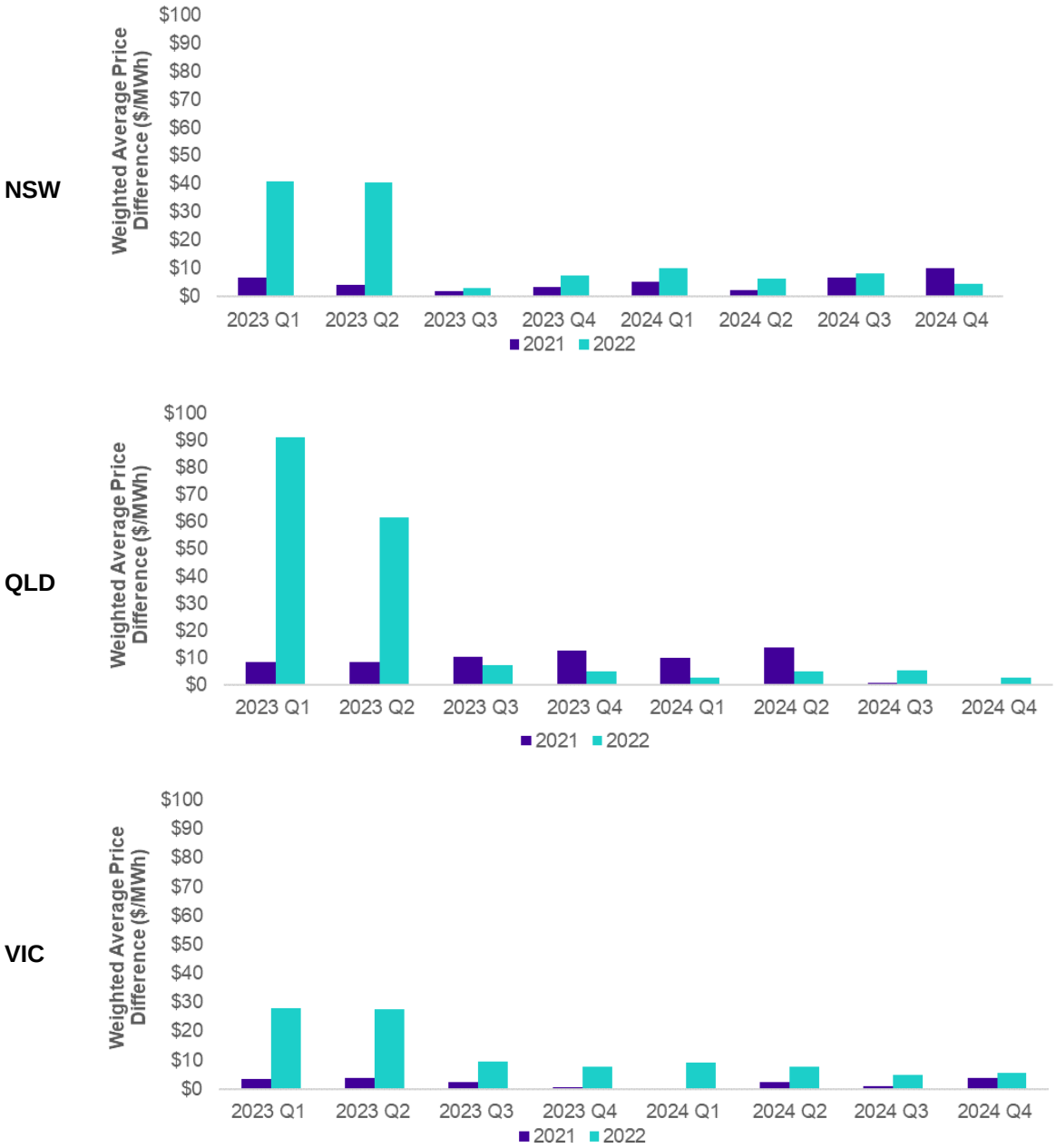
This trend was most apparent in quarter 1 and quarter 2 2023 swaps. In 2022, over-the-counter swap contracts for these quarters traded at a differential of around $28–91/MWh and around $27–61/MWh respectively, compared to the same ASX-listed swap contracts purchased in the same quarters. In contrast, a lower differential of around $4–8/MWh was

[36] As previously noted, quarterly base swap contracts are among the most liquid products traded in our dataset with a high reliance on these contracts by smaller retailers also demonstrated. Additionally, these contracts are amenable to comparison between retailers due to their more standardised structure and shape than other types of over-the-counter contracts. South Australia displayed low-no traded volumes of these contracts and has therefore been excluded.

observed between the same over-the-counter and ASX swap contracts traded in 2021 for both quarter 1 and quarter 2 2023 swaps.

Figure 3.17: As contract prices increased through 2022, the price divergence increased between over-the-counter and ASX nearer-dated quarterly base swap contracts

Volume weighted average of absolute price difference between OTC and ASX quarterly base swap contracts bought and sold in 2021 and 2022, by delivery period and region



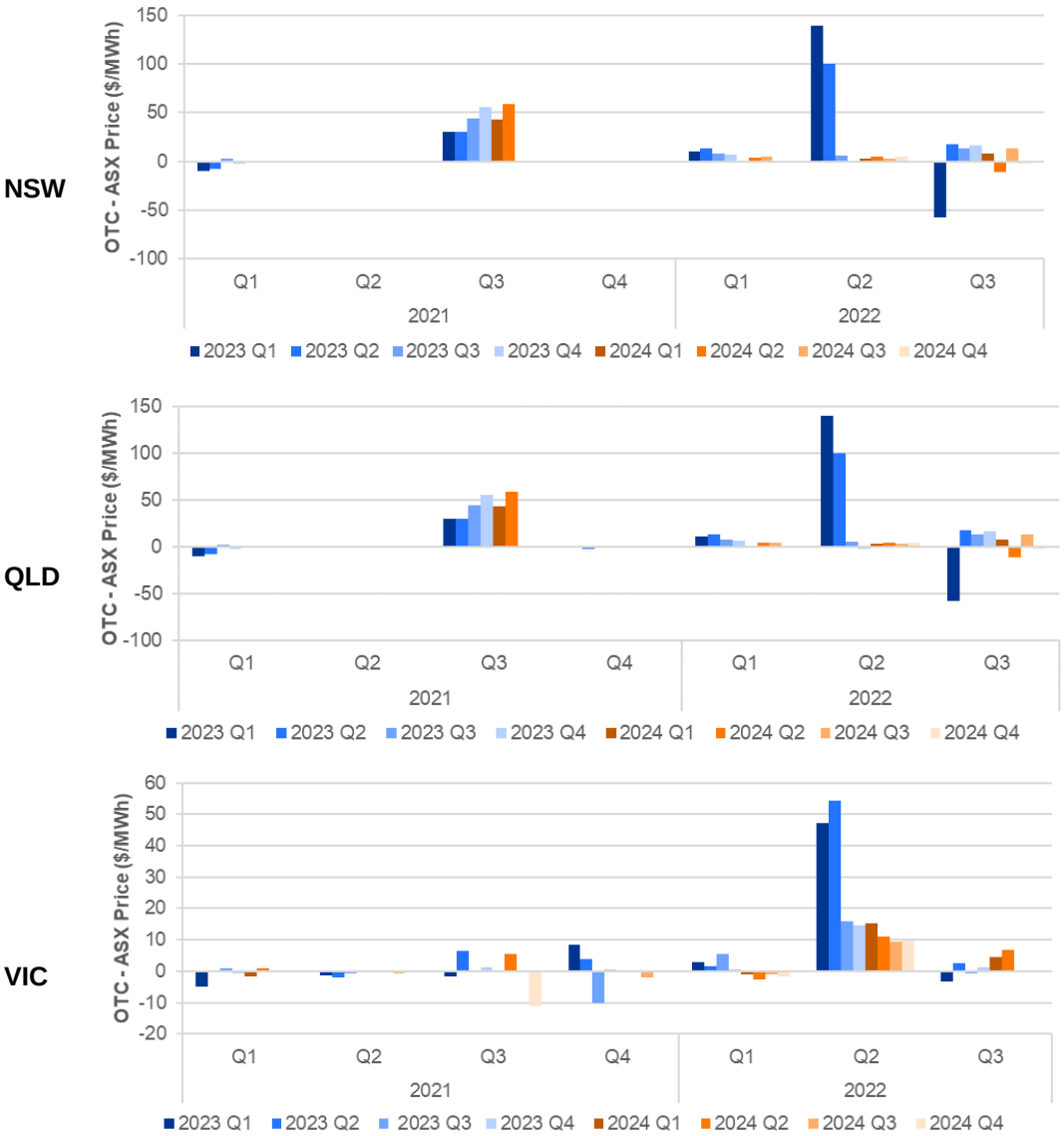
Source: ACCC analysis of hedging contract data.
Note: The higher price differentials for quarter 3 2023 to quarter 4 2024 swap contracts traded in Queensland in 2021 were driven primarily by the large spike in price premiums for over-the-counter contracts traded in quarter 3 2021 (see Figure 3.18). This spike was likely a response to the extreme spot prices in the state driven by the Callide C outage (among other factors) at that time.

3.2.10. Over-the-counter contracts in most National Electricity Market regions traded at a premium over ASX equivalents in 2022 relative to 2021

Figure 3.18 displays more detailed analysis of the annual average trends outlined in Section 3.2.9 by trade date for quarter 1 to quarter 4 2023 and 2024 quarterly base swap contracts. On a volume-weighted average basis, quarter 2 2022 saw a large spike in over-the-counter contract pricing, with premiums of around $47–140/MWh observed for quarter 1 2023 swap contracts and around $54–100/MWh for quarter 2 2023 swap contracts on the over-the-counter market. This compares to much lower differentials for base swap contracts for these delivery periods of around $4–8/MWh across 2021.

Figure 3.18: ASX and over-the-counter quarterly base swap prices display increasing divergence in 2022

Volume weighted average price difference between OTC and ASX quarterly base swap contracts bought and sold for 2023 and 2024 delivery periods, by trade date and NEM region



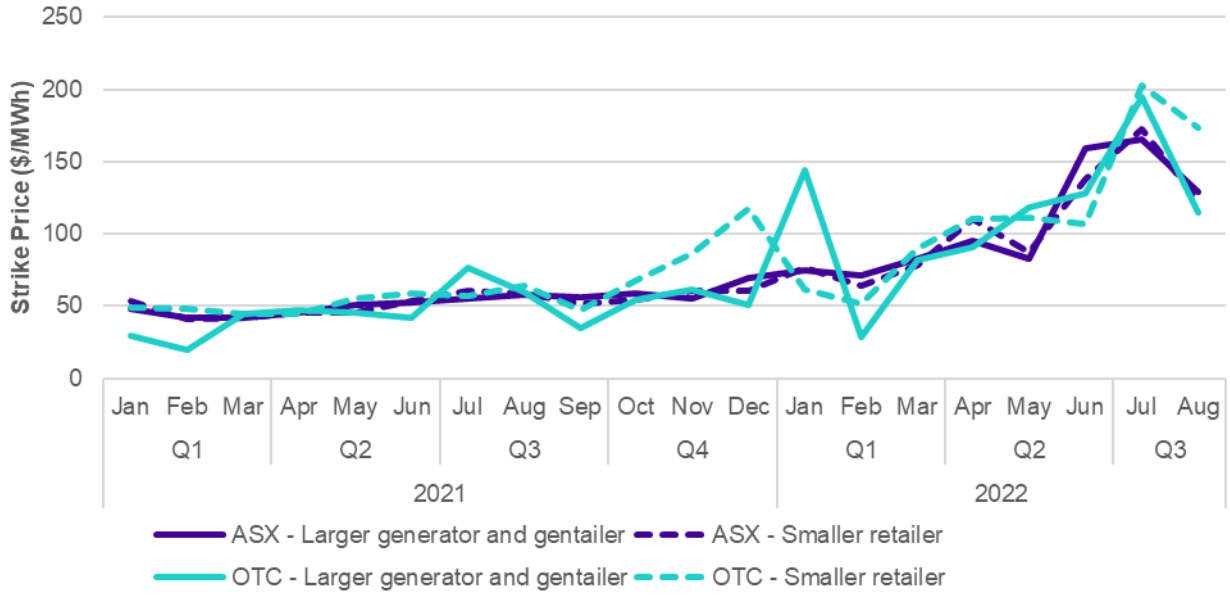
Source: ACCC analysis of hedging contract data.
Notes: External trades only. South Australia displayed low-no traded volumes of these contracts and has therefore been excluded. Tasmania has also been excluded as there are no ASX-listed contracts in the region. OTC = over-the-counter.

3.2.11. Smaller retailers bought proportionally larger volumes of over-the-counter swap contracts than larger generators and gentailers when prices were high

Figure 3.19 shows the average price for quarterly base swap contracts by delivery period for smaller retailers and larger generators and gentailers across ASX and over-the-counter products. There is little evidence that smaller retailers paid more for the same contract types than larger generators and gentailers when purchased at the same point in time (noting the analysis has been performed to monthly granularity).

Figure 3.19: There is little evidence that smaller retailers paid more for the same contract types than larger generators and gentailers when purchased at the same point in time

ASX and OTC base swap contract purchase price trends for larger generators and gentailers, and smaller retailers in 2021 and 2022



Source: ACCC analysis of hedging contract data.
Note: Excludes external trades.

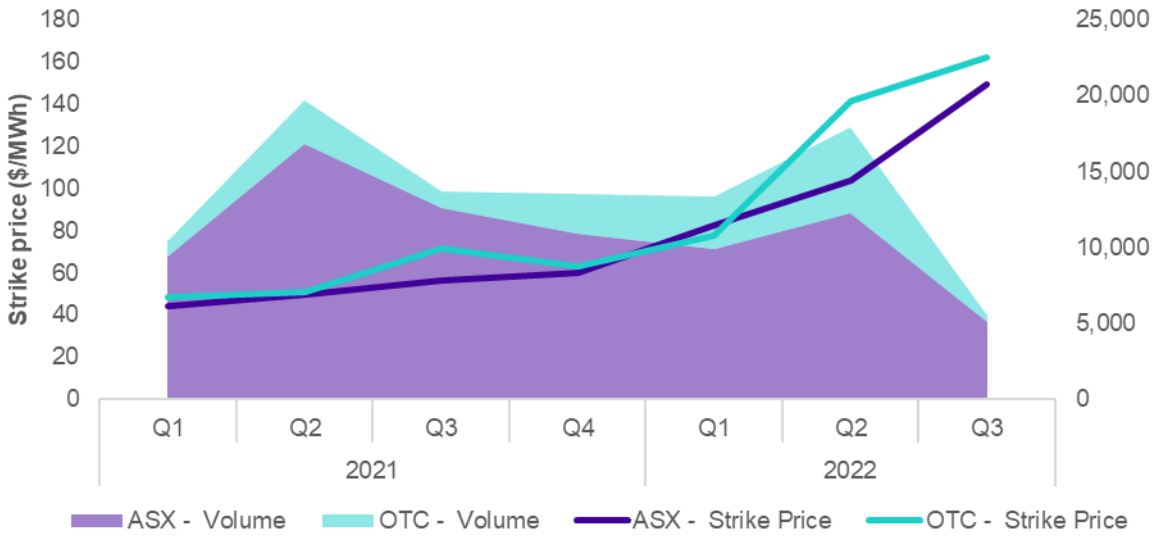
However, analysis of swap contract purchasing trends for smaller retailers and larger generators and gentailers suggests smaller retailers were comparatively more exposed to price premiums on over-the-counter swap contracts (see Figure 3.20). Smaller retailers purchased large volumes of over-the-counter swap contracts in quarter 2 2022 (when pricing was at its highest compared to ASX equivalent swaps). Meanwhile, larger generators and gentailers reduced the volume of both ASX and over-the-counter swap contracts purchased between 2021 and 2022 and their purchased volumes were proportionally weighted towards ASX contracts (as noted in sections 3.2.6 and 3.2.7 respectively).

This difference in trading activity may reflect the fact that smaller retailers were less able to reduce their purchasing activity in response to high prices as their trading activity tends to be focused on meeting customer needs. In contrast, a larger proportion of trading activity by larger generators and gentailers is expected to be selling and buying contracts to optimise their financial position, which can be more discretionary and scaled to reflect market conditions. Greater levels of discretionary trading are particularly likely if the retailer has a physical generation position.

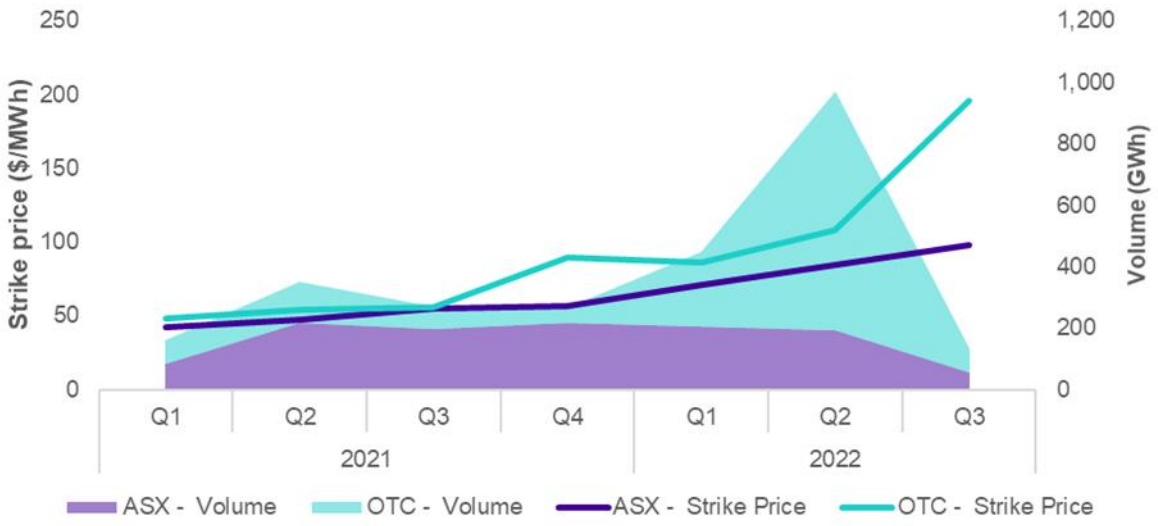
Figure 3.20: Smaller retailers bought proportionally larger volumes of over-the-counter contracts in quarter 2 2022 when prices were high, whereas larger generators and gentailers were less exposed to this price increase

ASX and OTC base swap contract volumes purchased by larger generators and gentailers, and smaller retailers in 2021 and 2022

Larger generators and gentailers



Smaller retailers



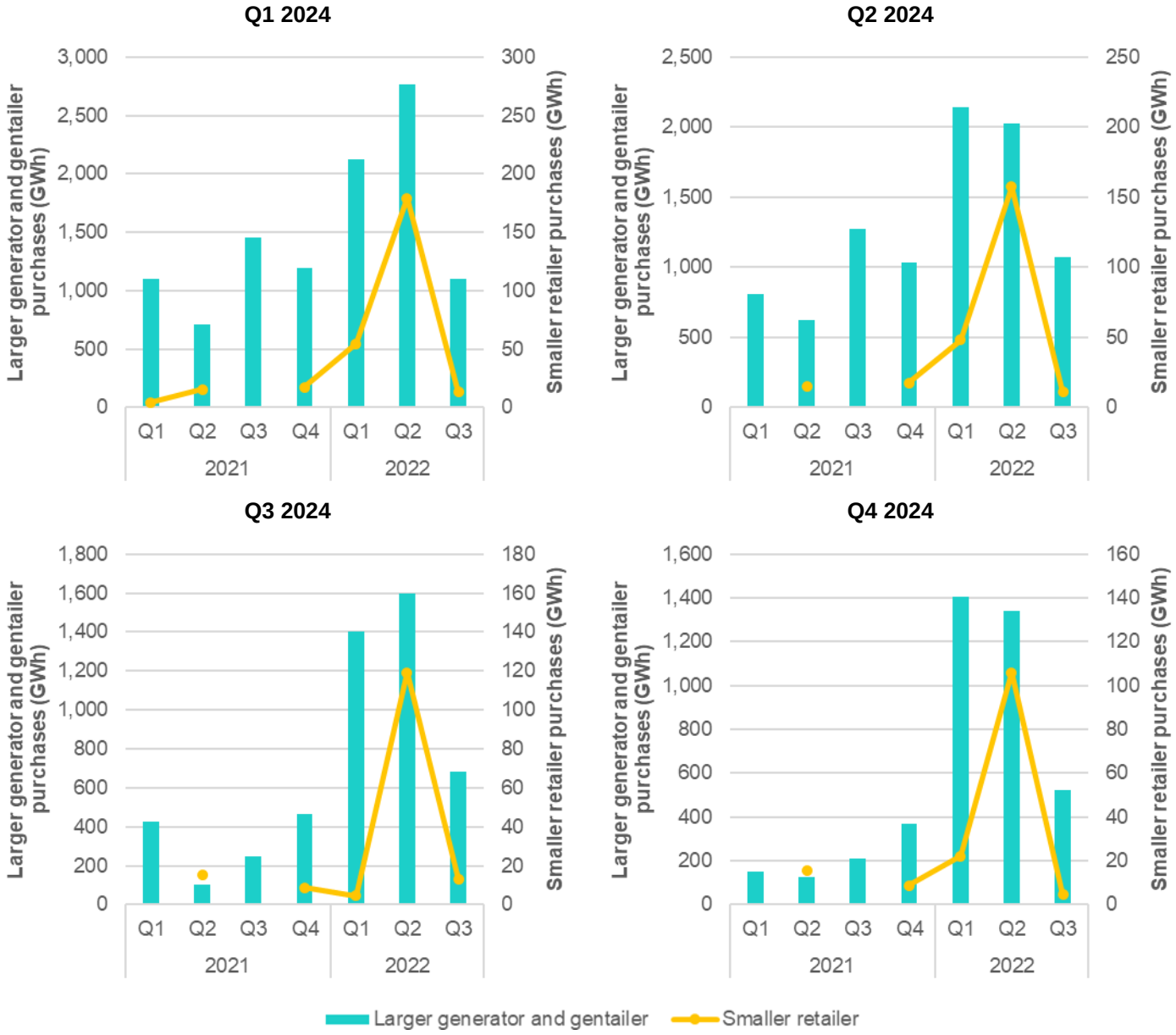
Source: ACCC analysis of hedging contract data.
Note: Excludes external trades. OTC = over-the-counter.

Beyond differences in flexibility of purchasing activity, our analysis indicated that larger generators and gentailers typically secured ASX and over-the-counter quarterly base swap contracts for future periods earlier than smaller retailers. This was particularly the case for later dated contracts, as illustrated in Figure 3.21, for 2024 quarterly base swap contracts. In the context of rising swap contract prices, this meant that larger retailers paid relatively lower

average swap contract prices than smaller retailers for most future delivery periods (note: the inverse result would occur if swap contract prices had fallen).

Figure 3.21: Smaller retailers hedged proportionally more volume in 2022 compared to larger generators and gentailers for the same quarterly swap contract

Larger generator and gentailer, and smaller retailer volumes of 2024 quarterly base swap contracts purchased in 2021 and 2022, by delivery period



Source: ACCC analysis of hedging contract data.
Note: Excludes external trades.

3.3. Policy and competition implications

The ACCC's analysis of contracts market activity over 2021 and 2022 reveals a number of pressing issues, including high prices, lower trading activity, a potentially significant reduction in access to key markets, and heightened concerns about the ability of smaller retailers to manage their risk effectively.

These issues are still developing and continued close monitoring of the contracts market will help to identify those which are critical to the National Electricity Market.

3.3.1. Further monitoring of the contracts market is needed

Our analysis reveals a range of issues in the contracts market that could worsen or lead to significant impacts in retail and generation markets in the short to medium term. Options for monitoring over those timeframes should be considered by government and market bodies.

Wholesale spot prices and price volatility have both risen in 2022, driven by a range of international and domestic factors. The steep increase in wholesale spot prices has flowed through to contract prices. It has impacted retailers' ability to hedge and the nature of their hedging practices through the middle of the year.

Recent and current market conditions are having a significant impact on the ability of retailers to manage their risk. Increases in ASX margin requirements have reduced retailers' financial capacity to enter contracts and have seen clearing participants reduce their engagement with the ASX. The margin increases have also resulted in generators offering fewer contracts on the ASX, given the steep growth in capital required to meet margin requirements.

For smaller retailers, the practical result of the rise in ASX margin requirements has been challenges in accessing ASX contracts, with these contracts practically inaccessible for some retailers as the broker and clearing participant options for small-scale trading reduce.

An outcome of these changes in hedging contract trading is that the proportion of contract volumes traded over-the-counter has increased. Over-the-counter contracts are increasingly important, particularly for smaller retailers, as ASX-traded alternatives have become less accessible.

In addition to over-the-counter contracts becoming more important for segments of the retail market, our analysis indicates that prices for ASX-traded contracts and over-the-counter contracts have diverged in 2022. This means that the readily available ASX pricing information does not currently act as an accurate proxy for market-wide contract pricing.

Given the importance of over-the-counter contracts for smaller retailers and the divergence of prices and that lack of a suitable proxy for over-the-counter contract prices, there appears to be a reinforced need for monitoring of the contracts market, including the over-the-counter contracts market.

Recommendation 1

The Australian Energy Regulator should monitor contracts market trading by registered National Electricity Market participants as part of its wholesale monitoring functions

There is a process currently underway to expand the AER's wholesale monitoring function to include the contracts market. The contracts market is an important link between generators and retailers. As our analysis shows, it can provide crucial insight into the strength and resilience of generators and retailers.

The current policy process should result in the AER receiving the power and appropriate funding to monitor the contracts market to ensure it functions effectively, protects competition, and provides risk management options to smaller, non-vertically integrated retailers. The increased scope should apply to monitoring and analysis of contracts market trading by registered National Electricity Market participants, including over-the-counter trading. The AER should report on key issues, but only disclose commercially sensitive information when there is a material public benefit in public reporting.

We have identified a range of issues affecting the contracts market which we consider may warrant further monitoring. The ACCC has broad-ranging monitoring powers under its inquiry in the National Electricity Market, and we can use these powers to undertake further investigations as we see necessary or to complement the expanded monitoring roles the AER may have in future. Some of the issues we have identified that may warrant further investigation include:

- identifying whether the current market dynamics of 2022, discussed in this report, are sustained through 2023, or have started to revert back to pre-2022 conditions
- monitoring the extent of increases in ASX margin requirements following the period of time analysed in this report, and the impacts on clearing participants, retailers, and generators
- identifying the extent of any increase in collateral requirements for over-the-counter contracts – this has happened in the ASX, as reported in this section, and while it does not appear to have been a significant issue for over-the-counter contracting in 2022 to date, it may emerge as an issue if market volatility is sustained, with flow-on adverse impacts for retailers
- monitoring how the ASX and impacted retailers have responded to the restriction on broker and clearing services, including whether new clearing participants have emerged, the extent to which clearing services becomes a more concentrated sector, and how retailers have responded or are responding to the restrictions on clearing services
- understanding whether new contract types have emerged or whether particular contract types have become more prevalent in response to changes in the contracts market or the physical transition in the National Electricity Market, on both exchanges and over-the-counter
- monitoring the changing role of the FEX Global, as a recently emerged exchange, and understanding whether there are any systemic barriers to operating as a new exchange or to clearing participants servicing a non-ASX exchange.

In addition to its inquiry function, the ACCC will continue to monitor compliance with Part XICA of the Competition and Consumer Act which prohibits generators from failing, limiting, or restricting offers to enter electricity hedging contracts with the purpose of substantially lessening competition in the electricity market.

3.3.2. The change in contracting practices, and higher margin requirements, have changed the cost of hedging for retailers

The shift in contracting from ASX to over-the-counter for some retailers and generators has likely increased the cost of hedging for some retailers. If this shift towards over-the-counter contracts is sustained, the impact on hedging costs is expected to become more pronounced.

The cost of meeting margin and other collateral requirements has increased steeply and also impacted the cost of hedging for most retailers and generators. This is particularly true for market participants trading on the ASX, where the increase in margin requirements is well-understood. It is not currently clear whether the collateral requirements for over-the-counter contracts have seen a comparable increase in 2022, however this direction of change could be expected in the longer term if recent market conditions are sustained.

It is important that regulated retail pricing – set through the Default Market Offer and the Victorian Default Offer – accurately reflects the costs of operating in the market, including the costs of hedging spot price risk. Regulated retail pricing protects consumers from unreasonable prices, but also influences the ability of retailers to recover their costs and remain active participants in the market. Regulated pricing which reflects actual costs is also important to giving other participants in the market, such as brokers and clearing participants, confidence that retailers have the capacity to recover their costs and remain viable, making them less risky contract counterparties. Our data demonstrates that no assumed hedging strategy can represent all retailers. However, it also highlights the importance of considering the variety of hedging behaviours across the whole market when regulating retail prices, and that different contracting strategies could reflect operational constraints and differential access to hedging products.

Recommendation 2

Regulated retail price setting should accurately reflect hedging costs

Our analysis indicates that the costs of hedging have changed for many retailers over the course of 2022. In particular, hedging costs have been pushed up due to:

- the shift in contracting away from the ASX and towards over-the-counter contracts by some retailers, and over-the-counter swap contracts, in general, trading at a premium to ASX swap contracts in 2022
- the significantly increased cost of margining and collateral for most retailers, particularly for ASX trading.

The AER is currently undertaking a review of the Default Market Offer wholesale cost methodology as part of its consideration of the 2023–24 Default Market Offer.[37] The ACCC recommends that the AER take the analysis and findings of this report into account when revising the wholesale cost methodology, to ensure the methodology and 2023–24 regulated retail prices reflect hedging costs in current market conditions. Current market conditions appear to be significantly different for many retailers than for previous Default Market Offer cycles.

The ACCC also recommends that the Essential Services Commission take the findings of this report into account for any future reviews of its Victorian Default Offer methodology.

[37] AER, *Default Market Offer 2023–24 Issues Paper*, Commonwealth of Australia, accessed 8 November 2022.

4. Competitive retail markets have delivered consumer benefits over the last decade

Key points

- Competition in retail markets is crucial to ensuring consumers' best interests are supported.
- Over the last decade, retail competition has increased as new retailers have won market share away from the incumbent retailers (Section 4.1).
- Non-big 3 retailers play a significant role in the market by offering value-for-money products and reflecting a diversity of consumer needs through developing innovative products and services (Section 4.1.2).
- As competition has increased, retail margins and costs have declined (Sections 4.2.1 and 4.2.2).
- The big 3 retailers continue to have significant competitive advantages and are able to operate with lower costs than other retailers (Section 4.1.3).

Competitive markets ensure that consumer benefits are realised, over the longer term, as businesses compete for greater market share by offering value-for-money products and reflecting a diversity of consumer needs by developing innovative products and services.

4.1. The retail market has become increasingly competitive

Retail competition has been progressively introduced in Australia since the early to mid-2000s. Retail competition across New South Wales, South Australia, South East Queensland, and Victoria has been growing steadily. Full retail competition in these regions opened the retail market to private retailers to compete for customers. Over time, in some markets, regulated prices were also removed.[38]

Figure 4.1 shows that the retail electricity market has 3 dominant providers; AGL, EnergyAustralia and Origin, who together supply 60% of small customers across the National Electricity Market (or NEM). Small customers include residential and small business customers but excludes large business customers (or commercial and industrial customers).

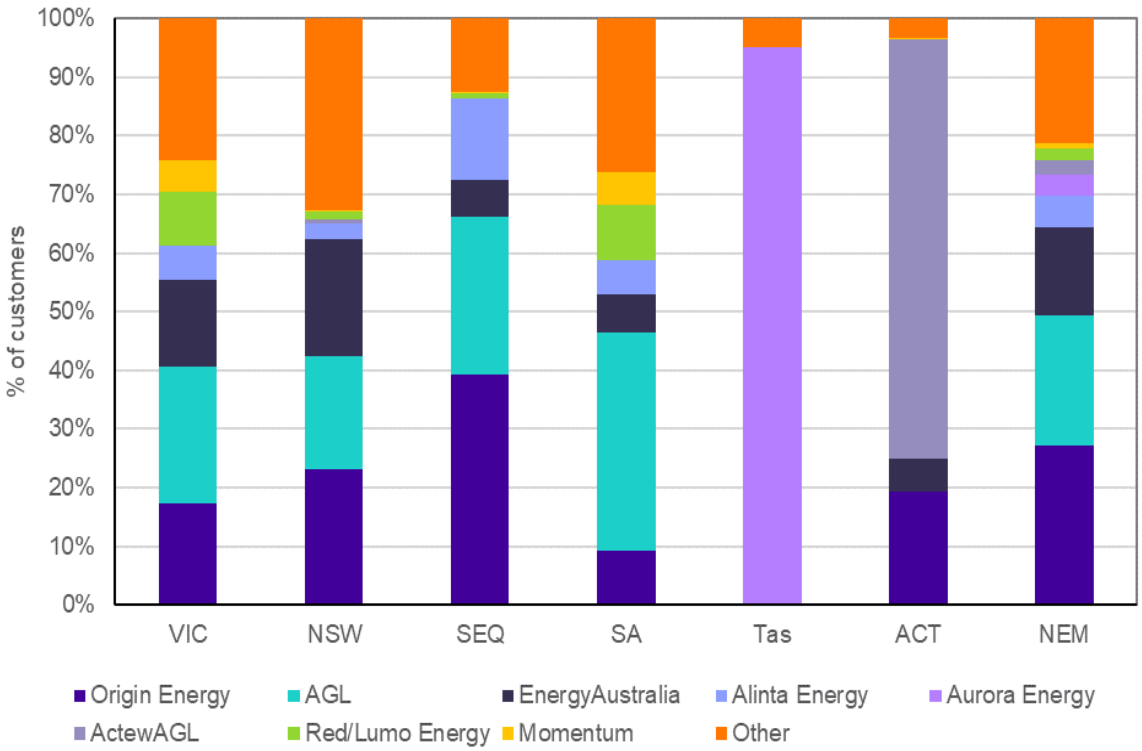
The big 3 retailers are not the top 3 by market share in every region; but nationally there is a substantial gap between these companies and the largest of the non-big 3 retailers.

Figure 4.1 also shows the dominance of regional government-owned providers in Tasmania and the Australian Capital Territory (Aurora Energy and ActewAGL, respectively). In Tasmania, the Australian Capital Territory and regional Queensland, a single regulated retailer (Aurora, ActewAGL and Ergon respectively) dominates their respective residential markets. These markets are not discussed further in this section.

[38] ACCC, *Retail Electricity Pricing Inquiry – Final Report*, Commonwealth of Australia, June 2018, p 134.

Figure 4.1: The big 3 retailers are the dominant players in most regions

Retail electricity market share by region, 2021–22



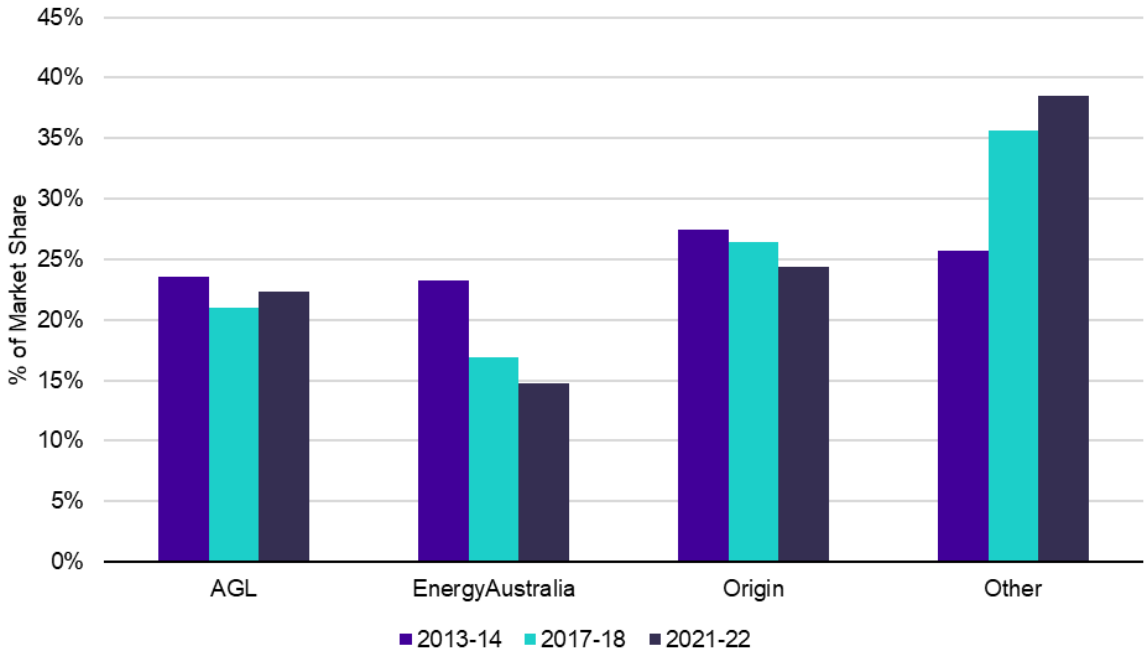
Source: AER, *Annual Retail Market Report 2021–22*, Commonwealth of Australia, 30 November 2022; Essential Services Commission (ESC), *Victorian Energy Market Report 2020–21 – Appendix: Retailer performance* [data set], ESC website, 30 November 2021, accessed 9 November 2022.

Note: Victorian data is for June 2021, while New South Wales, South East Queensland, Tasmania, Australian Capital Territory, National Electricity Market data is from June 2022. South-east Queensland data has been calculated by subtracting Ergon Energy customers from Queensland market share figures and rebasing percentages. NEM = National Electricity Market.

These big 3 retailers have gradually lost market share to non-big 3 retailers across time, as shown in Figure 4.2.

Figure 4.2: Other retailers have gained market share from the big 3 retailers

NEM-wide small customer market share in 2013–14, 2017–18 and 2021–22



Source: AER, *Annual Retail Market Report 2021–22*, Commonwealth of Australia, 30 November 2022; Essential Services Commission (ESC), *Victorian Energy Market Report 2020–21 – Appendix: Retailer performance* [data set], ESC website, 30 November 2021, accessed 9 November 2022.

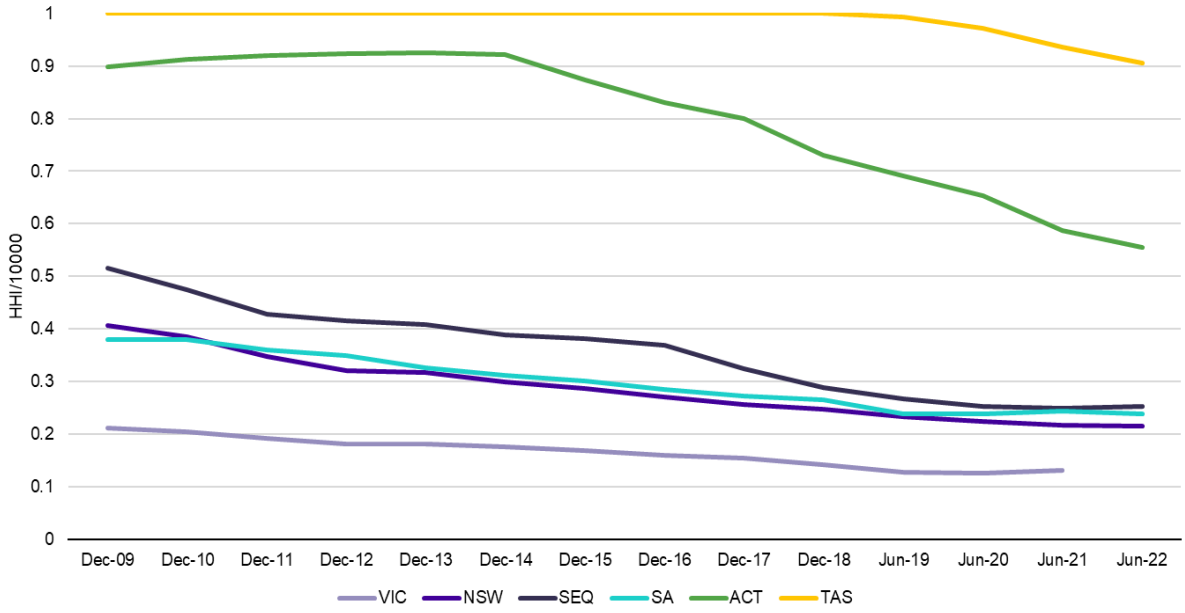
Note: Data for Victoria is as of June 2021, while National Electricity Market data is from Q4 2021–22.

Figure 4.3 illustrates the gradual decline in market concentration by using the Herfindahl-Hirschman Index for New South Wales, South Australia, Victoria, and South East Queensland from 2009. The Herfindahl-Hirschman Index is a common measure of market concentration.[39] An index of 1 indicates a monopoly while lower numbers represent increasing share of customers across numerous retailers.

[39] The Herfindahl-Hirschman Index sums the squared market shares of all active retailers in a particular market.

Figure 4.3: Residential electricity markets have become less consolidated

Herfindahl-Hirschman Index by region, December 2009 – June 2022



Source: AEMC, *Figure 3.3a: Long-term changes in HHI, 2009 to 2018 (electricity)* [data set], 2018, AEMC website, accessed 9 November 2022; AER, *Annual Retail Market Report 2021–22*, Commonwealth of Australia, 30 November 2022; Essential Services Commission (ESC), *Victorian Energy Market Report 2020–21 – Appendix: Retailer performance* [data set], ESC website, 30 November 2021, accessed 9 November 2022.

Victoria's lower market concentration and slower rate of change can be attributed to its early move to competitive retail markets and removal of price controls. Conversely, South East Queensland's higher market concentration and quicker rate of change can be attributed to its later move to competitive retail markets. Meanwhile, the high market concentration in the Australian Capital Territory and Tasmania reflects the dominance of government-owned providers in these regions.

Based on the number of customers churning from smaller to larger retailers (predominately due to retailer of last resort events), we expect that measures of market concentration will increase for 2022–23. Section 5.5 includes additional information on customer movements since May 2022.

4.1.1. Until recently, there was a steady growth in active retailers

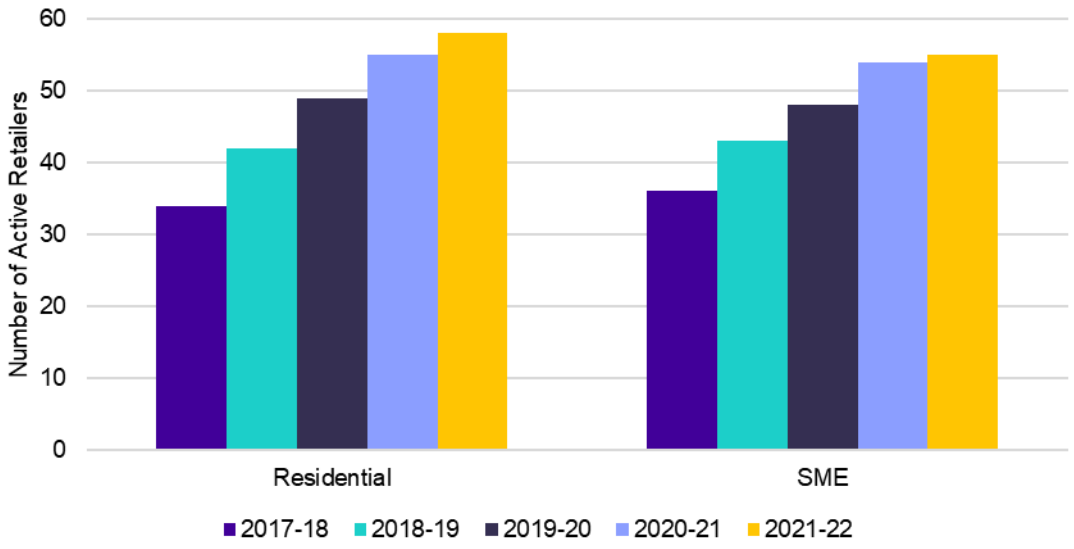
It is expected that businesses will enter and exit well-functioning markets. For example, businesses operating based on higher risk strategies or whose innovations fail will be prone to exiting the market at any time, particularly when disruptions occur. However, large numbers of retailers exiting the market (or becoming inactive) may negatively impact competition. Policy settings should seek the right balance between reducing consumers' exposure to high-risk market entrants and continuing to enable innovation and competition in the market.

Figure 4.4 shows that the number of retailers actively servicing each customer type has increased each year since 2017–18. Note that there may be other retailers that are authorised but are not 'active' as they do not have any customers.[40]

[40] The National Energy Retail Law requires that a person must not engage in the selling of energy (electricity or gas) to a person for premises unless the seller is the holder of a retailer authorisation or an exemption. The AER administers retailer authorisations. The AER is required to publish the details of all authorised retailers in a public register and must also publish any application for authorisation or to transfer or surrender an authorisation.

Figure 4.4: There has been steady growth in the number of active retailers

Active electricity retailers in the NEM by customer type, June 2018 – June 2022



Source: AER, *Annual Retail Market Report 2021–22*, Commonwealth of Australia, 30 November 2022; Essential Services Commission (ESC), *Victorian Energy Market Report 2020–21 – Appendix: Retailer performance* [data set], ESC website, 30 November 2021, accessed 9 November 2022; ACCC analysis of Victorian Energy Compare data. accessed 25 October 2022.

Note: An active retailer is a retailer with at least one customer. Retailers *without* customers are excluded from the count for that particular year. Data for Victoria in years 2017 to 2021 is from 30 June each year.

Keeping barriers to entry for new electricity retailers low is important to enable retailers to continue to enter the market and contribute to competitive outcomes. The steady growth in retailers demonstrated in Figure 4.4 is an encouraging sign that barriers to entry are currently sufficiently low.

4.1.2. Non-big 3 retailers play an important role in encouraging value for money and diversity of offers

Retailers will generally compete to attract new customers using prices. The ACCC considers the threat posed by the non-big 3 retailers to big 3 retailers' market share is an important driver of price competition in the retail market, benefiting consumers. The Australian Energy Regulator's (AER) State of the Energy Market 2022 report stated that the cheapest market offers in 2021 were typically by non-big 3 retailers, with the lowest offers typically $100 cheaper than the lowest offer from one of the big 3 retailers.[41] ACCC's market offer analysis reveals the median of minimum offers for non-big 3 retailers is often priced lower than big 3 retailers (see Figure 5.3).

Non-big 3 retailers play an important role in encouraging a diversity of offers by developing innovative products and services. While electricity is homogenous as a physical product, retailers can offer a range of different products that can vary according to pricing structures, the degree of control over the customer's devices and appliances (such as local storage), and other services such as applications and information flows.

The ability to choose from a range of different products benefits consumers as it allows them to choose a product that best suits their preferences and circumstances. High levels of innovation and product differentiation are signs of a competitive market.

[41] AER, *State of the Energy Market 2022*, Commonwealth of Australia, 29 September 2022, p 186.

Some electricity retailers target specific market segments, such as those with swimming pools, solar or battery systems, or those customers who have flexibility when they use energy.[42] Improving technology has allowed further development of innovative products and services. Much of the innovation, particularly around more bespoke solar options or demand response, is coming from non-big 3 retailers in the market.

Examples of non-standard offerings include:

- community-owned retailers
- 'green retailers' with renewable energy backed products
- subscription based services that work in conjunction with smart meters, solar and batteries
- wholesale pass-through offers, where customers' prices are linked to spot prices, rather than traditional tariff structures
- electricity plans being bundled with other services, such as telecommunications and gas.

4.1.3. However, big 3 retailers still have a competitive advantage

The ACCC has previously noted that the big 3 retailers have a greater proportion of customers on very long tenures and more customers on standing offers than other retailers.[43] This base of high paying customers allows big 3 retailers to offer aggressive retention offers to other customers. The big 3 also have an information advantage, allowing them to know which customers are the most profitable to compete to retain.[44]

The big 3 retailers also have considerable scale advantages which reduce their costs per customer. This is because many of their operational costs are incurred regardless of customer size and so having a larger customer base means each customer pays a smaller proportion of these fixed costs (this is known as economies of scale).[45]

The big 3 retailers, as well as some of the larger non-big 3 retailers, are 'vertically integrated', meaning they (or parent companies) own both electricity generation assets as well as retail operations.[46] Vertical integration means retailers can cover at least part of their retail load with electricity supplied by their own generation assets and offers these companies a 'natural hedge', reducing their need to purchase hedging contracts.

Our analysis of the contract market reveals that ASX contract trading for smaller retailers has been a significant and growing challenge through 2022 (Section 3.2.5). Additionally, the price of over-the-counter contracts, which our sample of smaller retailers rely on, traded at a premium over Australian Securities Exchange (ASX) equivalents in 2022 relative to 2021 (see sections 3.2.3, 3.2.7, 3.2.9 and 3.2.10). These factors may have exacerbated the competitive advantages for large retailers against smaller retailers in 2022.

ACCC analysis of retailers costs, shows that big 3 retailers continue to have lower costs to serve and costs to acquire and retain customers than non-big 3 retailers (see figures 4.7 and 4.8).

---

42 AER, *State of the Energy Market 2021*, Commonwealth of Australia, 2 July 2021, p 244.

43 ACCC, *Retail Electricity Pricing Inquiry – Final Report*, Commonwealth of Australia, June 2018, p 141.

44 ACCC, *Retail Electricity Pricing Inquiry – Final Report*, Commonwealth of Australia, June 2018, pp 141 – 144.

45 ACCC, *Retail Electricity Pricing Inquiry – Final Report*, Commonwealth of Australia, June 2018, p 145.

46 ACCC, *Retail Electricity Pricing Inquiry – Final Report*, Commonwealth of Australia, June 2018, p 110.

4.2. Increasing competition has driven down retail costs and margins

There is evidence that retail competition in the National Electricity Market has delivered benefits to consumers. The indicators of increased competition mentioned above are consistent with both a reduction in retail margins and a decline in retail costs over this period.

The following discussion provides updated information on retailer costs, up to 30 June 2022. As such it does not fully reflect the financial implications of the June 2022 energy events, which will financially impact retailers mainly across 2022–23.

The ACCC has collected retail cost information for each year since 2013–14. This analysis is known as the cost stack analysis as it combines network costs, wholesales costs, environmental costs, retail and other costs, and retail margins. Further explanation on costs stack can be found in the November 2021 report. Additional detailed information is included in Appendix C.

Figures C5 and C6 in Appendix C show the changes in retailers' overall cost stacks from 2020–21 to 2021–22 for residential and small business consumers. They show that on average, the total average costs per residential consumer for 2021–22 was made up of:

- 49% network costs
- 28% wholesale costs
- 11% environmental costs
- 10% retail and other costs
- 2% retail margins.[47]

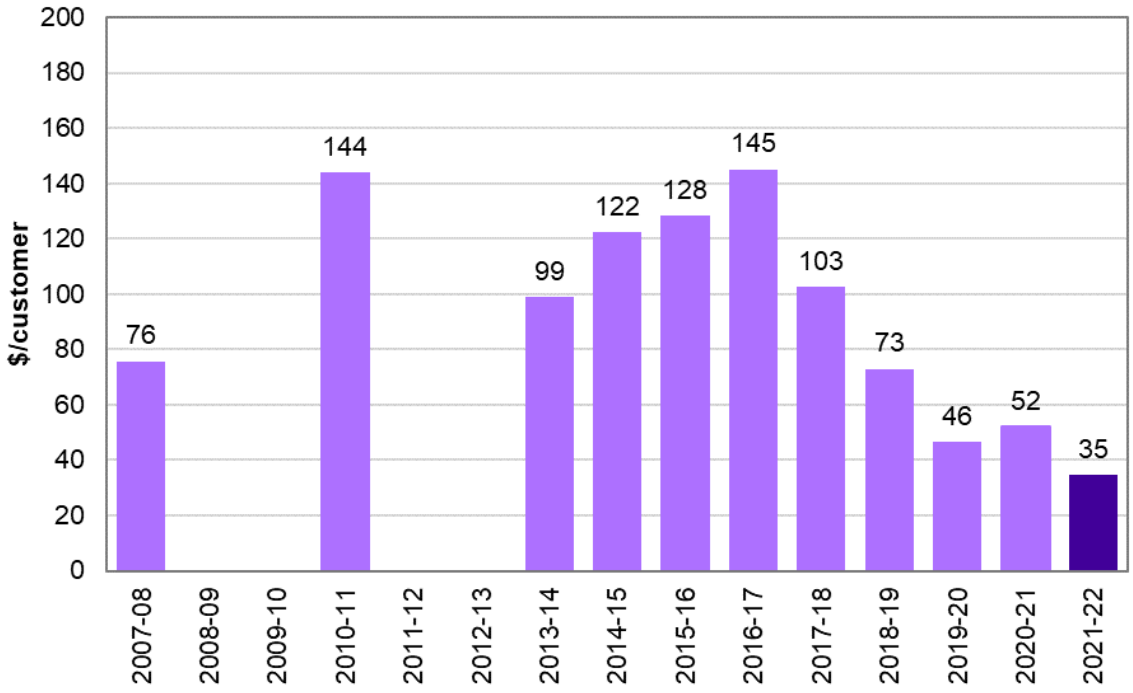
4.2.1. Retail margins are at near record lows

As shown in Figure 4.5, the average retail margin across the National Electricity Market had dropped to $35 per residential customer in 2021–22, a decrease of 33% in real terms from the previous financial year. This decline continues the general downward trend in retail margins from their peak in 2016–17.

[47] ACCC analysis based on retailer data.

Figure 4.5: Retail margins in 2021–22 declined to the lowest on record

Average retail margins (as earnings before interest, tax, depreciation and amortization or EBITDA) per residential customer across the NEM, 2007–08 to 2021–22, real $2021–22, excluding GST



Source: ACCC analysis based on retailers' data.

Figure C1 in Appendix C indicates that retail margins declined even more drastically for small business customers in 2021–22, decreasing by 50%.

Figure 4.5 presents annual data, and so the 2021–22 average retail margin reflects outcomes across the full financial year. There have been developments in recent months that could materially impact each of the potential factors we had previously identified (in our November 2021 report) as driving the multi-year downward trend:[48]

- **Competition in, and new entrants to, retail energy markets**. As noted in Figure 4.4 above, the number of active retailers increased from 30 June 2021 to 30 June 2022. Increased retailer entry suggests (though does not prove) increased competition, which is generally associated with reduced retail margins. However, we have observed several retailers exiting the market and others step back from seeking new market offer customers since May 2022, which could place upward pressure on retail margins.
- **Regulatory actions, including the Default Market Offer and Victorian Default Offer**. We have previously noted that the Default Market Offer and Victorian Default Offer act to reduce prices for those customers on standing offers, contributing to reduced margins for retailers with a material number of customers on those plans. Substantial increases in spot and hedging contract prices may not have been fully reflected in default offer prices for 2022–23. This means the standing offer price caps could be a major factor pushing down retail margins in 2022–23. Although, the next default offer price reset should reduce this pressure as regulators incorporate updated wholesale costs into the new prices. Section 5.4 outlines the pressures standing offer price caps impose on retailers.

[48] ACCC, *Inquiry into the National Electricity Market – November 2021 report*, Commonwealth of Australia, pp 32 – 33.

- **Low interest rates**. We had previously observed that reductions in interest rates supported lower margins, as retailers could make lower provisions for the interest costs to be covered by their margins.[49] While the Reserve Bank of Australia increased the official cash rate in the final 2 months of 2021–22, there was relatively little time for this to affect interest costs in 2021–22. Subsequent cash rate increases in each of the first 5 months of 2022–23 mean that the cash rate on 2 November 2022 is 275 basis points higher than the start of May 2022. This could result in rising retail margins in 2022–23.

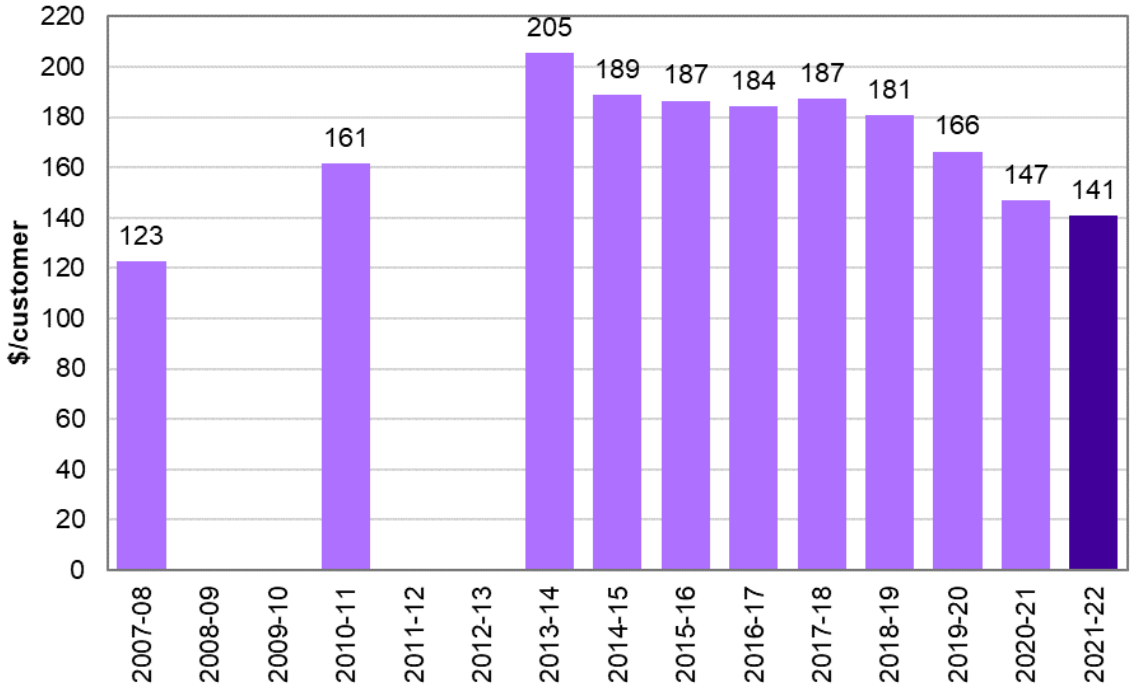
Our assessment of 2022–23 cost stack data will allow us to assess the full impact of the June 2022 energy events on retailer margins.

4.2.2. Retail costs are lower than they were 11 years ago

Figure 4.6 shows the continued reductions in National Electricity Market-wide retail costs per residential customer. Retail costs in 2021–22 were lower than all previous years with available data, except 2007–08.[50] They declined 4% in real terms from 2020–21.

Figure 4.6: Retail costs continued their downward trend in 2021–22

Average retail and other costs over time per residential customer across the NEM, 2007–08 to 2021–22, real $2021–22, excluding GST



Source: ACCC analysis based on retailers' data.

Figure C2 in Appendix C shows a similar story for retail costs per small business customer, with a 6% decline from 2020–21 to 2021–22.

The retail costs represented above can be further broken down into:

- cost to serve customers
- cost to acquire and retain customers.

---

49 Our retail margin is reported as earnings before interest, tax, depreciation, and amortisation.

50 To reduce regulatory burden on retailers, the Retail Electricity Pricing Inquiry collected data for select years prior to 2013–14 (specifically 2007–08 and 2010–11).

We split our data from retailers into big 3 and non-big 3 retailers to allow comparisons of competitive advantage between these 2 groups.

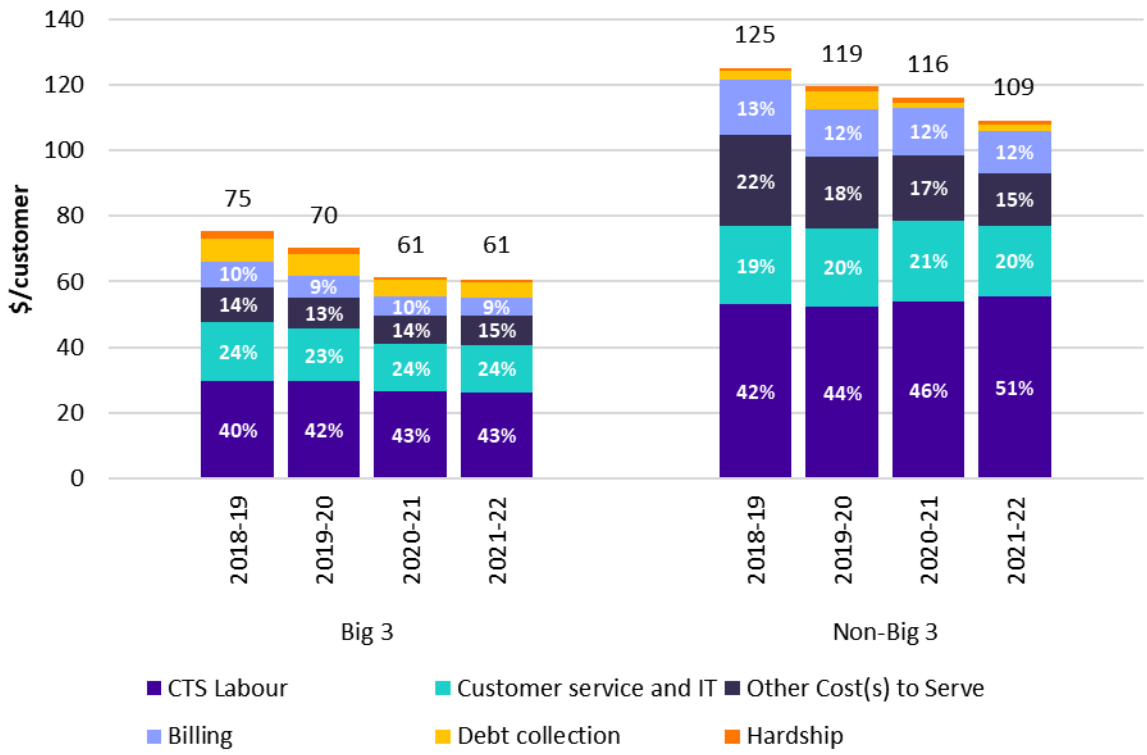
The cost to serve customers is declining

A retailer's cost to serve customers includes expenditure on billing, customer service, IT, debt collection and hardship programs.

Figure 4.7 shows that both groups of retailers have had generally declining costs to serve since 2018–19. The stark difference in the cost to serve between big 3 and non-big 3 retailers likely reflects the cost advantages of incumbency and economics of scale (outlined in Section 4.1.3). While the big 3 retailers' cost to serve residential customers remained stable from last year, their costs were 44% lower than non-big 3 retailers in 2021–22.

Figure 4.7: Big 3 retailers still have a large cost to serve advantage, despite the gap closing slightly

Average cost to serve per residential customer across the NEM by retailer tier, 2018–19 to 2021–22, real $2021–22, excluding GST



Source: ACCC analysis based on retailers' data.
Note: Data labels for small cost components have been omitted for readability. CTS = Cost to serve.

Figure C3 in Appendix C shows costs to serve per small business customers, which declined for both big 3 and non-big 3 retailers in 2021–22.

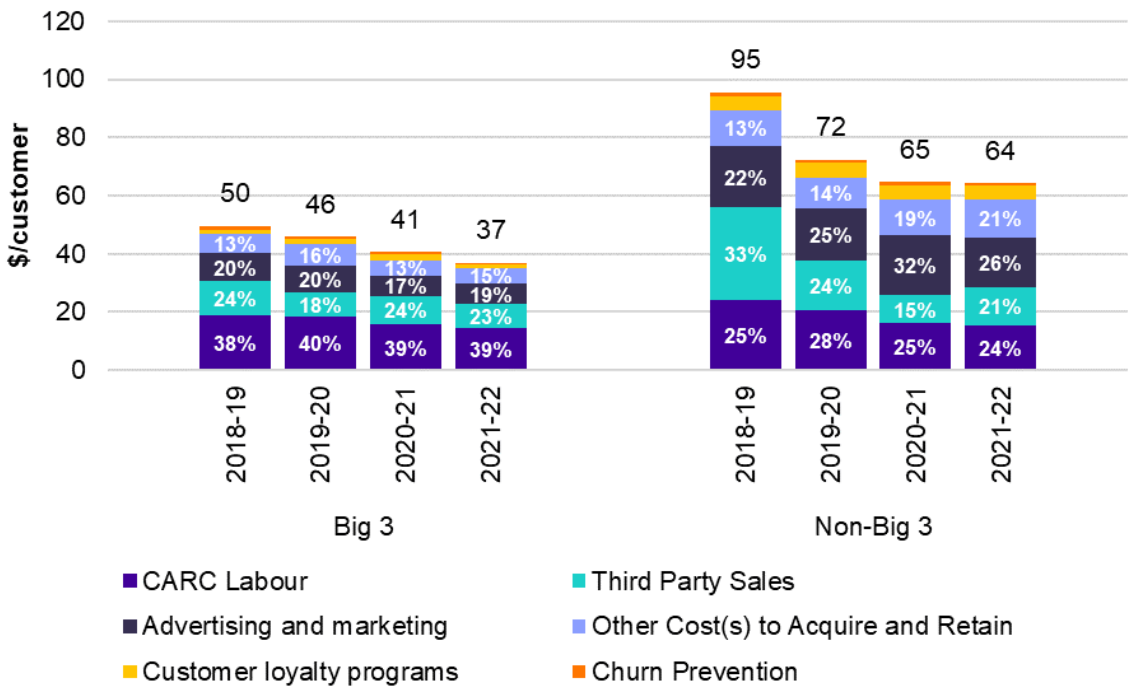
The cost to acquire and retain customers is lower for big 3 retailers

A retailer's cost to acquire and retain customers includes expenditure on marketing and advertising, customer loyalty programs, and third-party sales.

Figure 4.8 shows that while costs to acquire and retain per residential customer have fallen in recent years, the rate of decrease appears to have slowed for 2021–22, particular for non-big 3 retailers. As with the cost to serve, the big 3 still have much lower costs on a per customer basis, with big 3 retailers' costs to acquire and retain 43% lower than non-big 3 retailers.

Figure 4.8: Big 3 retailers increased their advantage in costs to acquire and retain in 2021–22

Average cost to acquire and retain per residential customer across the National Electricity Market by retailer tier, 2018–19 to 2021–22, real $2021–22, excluding GST



Source: ACCC analysis based on retailers' data.
Note: Data labels for small cost components have been omitted for readability. CARC = costs to acquire and retain.

Figure C4 in Appendix C reveals costs to acquire and retain small business stayed nearly stable for both big 3 and non-big 3 retailers. There was nearly parity in this cost category between the 2 groups of retailers.

5. Recent electricity market conditions and settings have put pressure on retailers

Key points

- Increased and volatile spot and hedging contract prices have increased retailers' costs. The magnitude of the impact will vary based on each retailer's strategy for managing risk (sections 5.1 and 5.2).
- Future compensation payments will further add to retailers' costs. These costs cannot be hedged for and have the potential to impact retailers' cash flow (Section 5.3).
- In the short term, retailers have a limited ability to recover these increased costs, adding to retailers' cash flow issues (Section 5.4).
- The ACCC is concerned that since May 2022, competition in the retail market has decreased as:
    - retailers have exited the market (Section 5.5.1)
    - customers have shifted to the big 3 (Section 5.5.2)
    - the number of market offers has reduced (Section 5.5.3)
    - the number of retailers offering market offers below the standing offer has reduced (Section 5.5.4)
    - market offer prices have converged around standing offers (Section 5.5.5)
    - retail prices have increased by more than the standing offer reducing incentives for customers to shop around (Section 5.6).
- The ACCC recommends that the Electricity Retail Code should be amended to provide the Australian Energy Regulator the flexibility to adjust the Default Market Offer determination outside of the annual price setting cycle (Section 5.7).

As set out in Chapter 1, while spot prices have declined significantly from around mid-July, they remain significantly elevated from the level they were at a year ago.

High and volatile spot prices have been coupled with other pressures including:

- increasing costs to supply electricity, including high and volatile hedging contract prices for retailers (Section 5.1)
- reduced access to hedging contracts (Section 5.2)
- upcoming compensation payments, which will add to retailers' costs (Section 5.3)
- capped retail prices, which limit retailers' ability to pass cost increases onto consumers. (Section 5.4).

The combination of the sudden increase in wholesale prices in 2022 and the limited ability to raise prices under the standing offer is likely to reduce retail margins. These pressures have led to 6 retailers exiting the market, as well as several retailers no longer seeking new market offer customers, as of October 2022.[51]

[51] Retail licence revocations occurred when retailers exited the market through the retailer of last resort scheme. Retailers no longer seeking new market offer customers refers to retailers that have encouraged their customers to leave, ceased to offer market offers or priced their market offer significantly above standing offer (or taken several of these actions).

They have also resulted in:

- negative impacts on retailers and consumer choice (sections 5.5.3 and 5.5.4)
- increased standing and market offer increasing retail prices (Section 5.6).

Section 5.7 outlines how current policy settings may be distorting the market, and how amending these settings will help maintain retail competition.

5.1. Raised and volatile wholesale prices are increasing the cost to supply electricity

The electricity spot price is what generators are paid for dispatching electricity during each 5-minute period, and the price retailers are required to pay for supplying electricity to their customers. Spot prices fluctuate across days, weeks, months, and years. Due to the high level of volatility (and therefore) risk in the electricity spot market, both retailers and generators generally seek to reduce this risk by hedging.

Hedging involves generators and retailers entering into arrangements where they agree a set price (under specific circumstances) for the sale and purchase of electricity. While these pricing arrangements are in place, the actual costs of a retailer (and the revenues of a generator) are determined by these hedging contracts rather than the spot price. Each retailer's hedging strategy will be different, with some retailers completely reliant on hedging contracts and others purchasing a greater proportion of their expected retail load from the spot market. Section 3.2.4 provides more detail.

Recent events in the market (outlined in Chapter 1) have led to higher forecast spot prices which has in turn, driven higher hedging contract prices (see Figure 3.3).[52] If spot and hedging contract prices remain elevated, we anticipate these costs will flow through to retail prices, and hence customers. However, there is usually a time lag between changes to spot prices and retailers' experienced costs due to retailers' aggregate hedging behaviour.

5.2. Our contracts market analysis reveals challenges for retailers

For retailers mitigating spot price risk by trading in the hedging contracts market, an effective, liquid market is an important tool for minimising the risks they face.

Our analysis reveals increased hedging contract prices (Section 3.2.1), associated increases in Australian Energy Market Operator (AEMO) prudential and Australian Securities Exchange (ASX) margin requirements for some retailers (sections 3.2.8, 3.2.6 and 3.2.5) and declining hedging contract liquidity (Section 3.2.2) in 2022. These pressures are impacting retailers' ability to manage their risks and driving broader shifts in hedging behaviour (sections 3.2.5 to 3.2.7).

Retailers have also reported ASX hedging contract trading has been a significant and growing challenge through 2022 (Section 3.2.5). If retailers cannot access affordable hedging contracts, they will be unable to manage their exposure to spot prices. This may affect their ability to continue operating in the market.

Our analysis has identified retailers' costs to source and purchase electricity likely increased significantly over the second half of 2022. These cost increases have resulted in higher retail electricity prices (see chapters 2 and 3).

We also found that retailer hedging strategies are diverse, and the volatility of 2022 has led to changes in approaches and price outcomes in the hedging contracts market. In the

[52] AER, *Wholesale markets quarterly Q2 2022: April – June*, Commonwealth of Australia, September 2022, p 6.

context of these findings, it is important that Default Market Offer and Victorian Default Offer prices accurately reflect the costs of operating in the market, including the costs of hedging spot price risk.

The AER should consider these finding in its review of the Default Market Offer wholesale cost methodology and the Essential Services Commission should do so in any future reviews of the Victorian Default Offer (see Recommendation 2). Policy makers should also be cognisant of the relative difference in pressure imposed on different groups of retailers when considering policy options.

5.3. Upcoming compensation payments will add to retailers' costs

As set out in Chapter 1, a confluence of factors culminated in AEMO making a number of market interventions in June 2022, including introducing the administered price cap and suspending the entire National Electricity Market wholesale market to ensure the continued reliability of electricity supply.[53] AEMO also directed generators to make generation capacity available to be dispatched, and manually managed capacity and energy limitations on generating facilities.

Market participants in these circumstances have opportunities to claim compensation. This ensures that market participants, such as generators, continue to supply the electricity market, even while the spot price available may not be sufficient to cover their marginal cost of operation.

Once a claim is successful, AEMO will collect payments from retailers and make payments to market participants. This is done through AEMO's regular weekly settlements process.

Retailers cannot hedge for these compensation costs and their ability to recover costs from consumers is limited. As such, the ACCC is concerned the cash flow impacts on retailers stemming from these compensation payments may further contribute to the pressures facing retailers.

5.3.1. Several compensation regimes exist in the National Electricity Market

Compensation regimes are designed to assist in maintaining system reliability during market interventions by maintaining the incentives for market participants, such as generators, to continue supplying the market.

The main compensation (payment) schemes include market suspension, directions and administered pricing compensation. Costs under the Reliability and Emergency Reserve Trader regimes are also recovered in a similar manner to the compensation schemes. AEMO administers 3 of these schemes while the Australian Energy Market Commission (AEMC) administers the fourth.

Table 5.1 summarises the anticipated total cost of each of these regimes and the anticipated timing of when invoices will be issued to retailers.[54] Box 5.1 explains the various compensation schemes of relevance in the National Electricity Market.

---

[53] The administered price cap limits wholesale spot price to ±$300. It was introduced in Queensland on 12 June and in New South Wales, Victoria and South Australia on 13 June and finished in all states on 23 June. AEMO, *NEM market suspension and operational challenges in June 2022*, AEMO, August 2022, p 15.

[54] Note that no claims were received for 'affected participant' compensation for changes in dispatch due to interventions, and so this scheme is not covered in Table 5.1.

Table 5.1: Anticipated total cost and timing of invoicing from various compensation regimes following June 2022 market suspension period

Regime	Regulator	Type of costs	Anticipated total cost	Date total costs will be finalised
RERT	AEMO	N/A	$82.3 million (mostly in NSW)	$80 million paid in week of 13 July 2022, remainder in week of 1 November 2022
Market suspension	AEMO	Direct	~$98 million	Weeks of 12 and 19 January 2023
Directions	AEMO	Direct	~$16 million	Weeks of 12 and 19 January 2023
Administered pricing	AEMC	Direct and opportunity costs	Unknown	Likely over the first half of 2023 (if AEMC receives information by end of 2022)

Source: AEMO, *June 2022 NEM Events: Compensation Update (15 August 2022)*, AEMO, 15 August 2022, pp 1 – 2; AEMO, *Compensation Briefing for Retailers*, AEMO. 29 June 2022, p 18.
Note: For all compensation regimes, costs will be apportioned to and recovered from market customers based on energy supplied in the relevant region. RERT = Reliability and Emergency Reserve Trader, AEMO = Australian Energy Market Operator, AEMC = Australian Energy Market Commission.

Box 5.1: Compensation schemes in the National Electricity Market

Reliability and Emergency Reserve Trader payments

While not technically a compensation scheme, the Reliability and Emergency Reserve Trader is a function conferred on AEMO to maintain power system reliability and system security using reserve contracts. If AEMO observes forecast reliability and security is outside a National Electricity Market standard and it considers there is no market resolution to this, then AEMO may choose to procure reserves from one of the Reliability and Emergency Reserve Trader panel providers. Contracts under this regime can have provisions to pay providers for availability, pre-activation (for non-scheduled reserves only), usage, and early termination.[55]

In the week of 13 July 2022, AEMO collected $80 million of Reliability and Emergency Reserve Trader payments. $76.2 million in New South Wales and $3.7 million in Queensland. AEMO recovered an additional $2.3 million in the week of 1 November 2022.[56]

Market suspension compensation

This regime, administered by AEMO, provides compensation to generators that supplied electricity during the period of market suspension, when prices were set by the market suspension pricing schedule.

[55] AEMO, *Reliability and Emergency Reserve Trader (RERT)*, AEMO website, n.d., accessed 15 November 2022.

[56] AEMO, *June 2022 NEM Events: Compensation Update (15 August 2022)*, AEMO, 15 August 2022, p. 1.

The suspension compensation regime was introduced as part of an AEMC rule change in November 2018. The framework was designed to remove the incentive at the time for generators to withdraw from the market and await direction by AEMO when market suspension pricing schedule prices were too low.[57]

AEMO has indicated that the majority of the claims arising from the events of May and June 2022 are complex and will be assessed prior to the 30-week deadline. Therefore, most of the claims will be billed during the weeks of 12 and 19 January.

Claims under this regime total nearly $100 million.[58]

Direction compensation

This regime, administered by AEMO, provides compensation to generators that were directed to generate or bid themselves available. Between 13 and 23 June 2022, AEMO directed up to 10,300 MW of generation to either be made available or to generate electricity in 500 separate directions.[59]

Generators are initially paid provisional compensation at the 90th percentile of the spot price for the directed quantity and are then compensated for additional net direct costs incurred, including fuel costs, incremental maintenance, and incremental staffing costs.[60]

The cost of these claims is expected to be around $16 million.[61]

Administered pricing compensation

The AEMC manages the administered pricing compensation, which allows market participants to claim compensation for any losses from supplying energy or other services during an administered pricing period. The administered price cap limits wholesale spot prices to ± $300 and is automatically introduced when the cumulative price threshold is triggered.[62]

The AEMC has not provided an estimate of the costs of claims. 23 market participants have made claims.[63]

Timeframes for the processing of compensation claims under this scheme do not start until the AEMC has received all relevant information from claimants. The AEMC has commenced assessment of the first direct costs claims but has not received necessary information from claimants for the majority of claims.[64] The ACCC anticipates the majority of claims assessment (by AEMC) and invoice issuance (by AEMO) to retailers will occur during the first half of 2023 if the AEMC receives supporting information from claimants by the end of 2022.

---

57 AEMC, *Rule Determination: National Electricity Amendment (Participant Compensation Following Market Suspension) Rule 2018*, AEMC, 15 November 2018, p i.

58 AEMO, *June 2022 NEM Events: Compensation Update (15 August 2022)*, AEMO, 15 August 2022, p 2.

59 AEMO, *Affected Participant Compensation – NEM – June 2022*, AEMO, 7 July 2022, p. 1. The list of directions and resulting compensation claim processes is available on AEMO's website.

60 AEMC, *Rule Determination: National Electricity Amendment (Compensation for Market Participants Affected by Intervention Events) Rule 2021*, AEMC, 2 December 2021, p 9.

61 AEMO, *June 2022 NEM Events: Compensation Update (15 August 2022)*, AEMO, 15 August 2022, p 2.

62 The cumulative price threshold refers to the rolling total of 7 days of trading prices in a National Electricity Market region. It was set at $1,359,100 for 2021–22 and increased to $1,398,100 for 2022–23. More information is in Section 2.1.1.

63 Additional information is available on the AEMC website.

64 AEMC, *Administered pricing compensation claims*, AEMC website, last updated 27 October 2022, accessed 1 November 2022.

5.3.2. Compensation costs cause potential additional cash flow issues for retailers

Retailers have expressed concerns directly to the ACCC about the cash flow impacts of costs associated with compensation payments.

Compensation and Reliability and Emergency Reserve Trader payments are not included in the Default Market Offer and Victorian Default Offer until after the event (Section 5.4 explains these offers). Therefore, the approximately $200 million in additional payments arising from the events of May and June 2022 will flow into the next Default Market Offer and Victorian Default Offer, which will take effect on 1 July 2023. Large payments are due in January, leaving an extended period during which retailers will be out of pocket.

Retailers are unable to hedge for compensation costs associated with market interventions. This effectively has placed the risk on retailers. One retail executive was quoted as saying:

> The compensation costs are outside our swap agreements, so we have to pay it and then try and recoup the money from the customer… We cannot hedge compensation costs.[65]

While some retailers may seek to 'pass through' these costs directly to large business customers, for most customers the retailer will be forced to absorb the increased cost or increase market offer prices until standing offer prices are reset.

Further, retailers do not know the value of the claims they will be invoiced. This uncertainty will continue for some months and increases financial and cash flow risks for the business.

Finally, payment by retailers is incorporated within AEMO's standard payment cycles, which provides retailers with 2 days between receipt of an invoice and payment. Retailers are used to the short time frames when they can plan for based on their known customer load. However, large, unexpected payments can be difficult to finance causing cash flow issues. As such there may be merit in ensuring that AEMO has the ability to phase payments across an extended period if the payments are large.

Retailers have indicated they anticipate challenges in acquiring necessary capital to finance these payments. Retailers that are less able to access capital will be at a disadvantage to retailers with relatively greater access to capital.

Additionally, large business customers are not covered by the Default Market Offer and are often on 'wholesale pass through' offers. Therefore, retailers that do not have a sizeable proportion of large business customers and rely upon small customers will be more impacted by an inability to immediately pass cost increases onto customers.

5.4. Capped retail prices limit retailers' ability to pass cost increases

Retailers have a limited ability to immediately pass on increased costs by increasing their prices as retail prices are effectively capped by the Default Market Offer and Victorian Default Offer). The Default Market Offer and Victorian Default Offer constrain the prices of standing offers and are defined in Box 5.2.

---

[65] Colin Packham, 'Energy retailers to sue AEMO over compensation cost', Australian Financial Review, 8 July 2022, accessed 9 November 2022.

Box 5.2: Market offers and standing offers

Most regions have competitive retail markets which enables households to choose their own electricity retailer and a market offer which suits how they use electricity. The key feature of market offers is that the contract terms (such as the price, length of contract, and any discounts or incentives) are set by the energy retailer. Market offers typically offer customers a better deal than the 'no frills' standing offers, which have the price set or capped by an independent regulator.

Standing offers were originally intended to provide a safety net to ensure that customers get a basic service at a reasonable price, but over time they became some of the highest priced plans. In July 2019, the Australian Government introduced the Default Market Offer (often abbreviated to the DMO) in New South Wales, South Australia, and South East Queensland while the Victorian Government introduced the Victorian Default Offer (often abbreviated to the VDO). These reforms introduced standing offer price settings, protecting customers on standing offers by bringing those prices down.

The number of customers on the Default Market Offer is:

- for households around 10% of the total market (550,000 customers)
- for small businesses around 18% (90,000 customers).[66]

While most customers are not on the Default Market Offer, Default Market Offers are important as it serves as a maximum price for standing offers. Standing offers also indirectly restrict market offer prices because:

- retailers are required to compare the prices of market offers to the standing offers, so consumers are advised when their plan is more expensive than the standing offer
- retailers are obliged to offer the standing offer, which consumers can switch to if market offer prices increase above the standing offer.

The Default Market Offer and Victorian Default Offer were both set based on data from May 2022, and do not reflect the substantially higher spot and hedging contract prices that have occurred since then.[67] As retailers' hedging contracts mature, they will have to be replaced by new (likely more expensive) hedging contracts in order for retailers to remain insulated against spot market volatility.

The Default Market Offer and Victorian Default Offer's will not be updated until May 2023, with new prices taking effect on 1 July 2023. The timing of spot and hedging contract price spikes mean that retailers will have experienced 13 months of elevated costs by the time standing offers are reset on 1 July 2023. Retailers have indicated that this long delay will limit their ability to pass on cost increases to consumers in the form of price rises during this time, further impacting their cash flow.[68]

The Default Market Offer and Victorian Default Offer will also spread the costs of compensation incurred during 2021–22 across the following year.

---

66 AER, *AER sets energy price cap to protect consumers* [media release], AER, 26 May 2022, accessed 9 November 2022.

67 The Default Market Offer included some observed spot market price increases, leading to Default Market Offer price increases of 5.7–19.7%, although spot prices continued to rise after this and remain elevated. AER, *AER sets energy price cap to protect consumers* [media release], AER, 26 May 2022, accessed 9 November 2022.

68 Information provided to the ACCC; Colin Packham, *Energy retailers to sue AEMO over compensation cost*, Australian Financial Review, 8 July 2022, accessed 9 November 2022.

The Default Market Offer cannot currently be adjusted if market conditions change dramatically during a price cycle.[69] However, the Victorian Default Offer can be changed during the year, subject to conditions. [70]

5.5. Recent retailer exits have consolidated the market and reduced consumer choice

Retailers have encountered a number of headwinds since the June 2022 energy events. More electricity retailers have failed in 2022 than any other year. Since May 2022:

- retailers have exited the market (Section 5.5.1)
- customers have shifted to the big 3 (Section 5.5.2)
- the number of market offers has reduced (Section 5.5.3)
- the number of retailers offering market offers below the standing offer has reduced (Section 5.5.4)
- market offer prices have converged around standing offers (Section 5.5)
- retail prices have increased (Section 5.6).

5.5.1. A number of retailers have exited the market since May 2022

While businesses entering and exiting a market is normal in a competitive market, the number of retailer exits since May 2022 is concerning.

Between 1 May and 11 October 2022, 6 electricity retailers exited the market through the retailer of last resort scheme. A variety of circumstances led to each of these retailers exiting the market. Prior to May 2022, retailer of last resort events were rare. The previous retailer of last resort event was in May 2019, with 1 occurring per year from 2016 to 2019.

The retailer of last resort scheme is designed to ensure that, in the event of a retailer failing, customers continue to receive electricity (or gas) supply. When a retailer fails, the AER ensures their customers are transferred to the relevant retailer of last resort for that distribution zone (generally one of the big 3 retailers). While the underlying causes of the failure may vary, a retailer will generally enter the retailer of last resort scheme when it can no longer supply its customers.

Table 5.2 includes all the retailers that have exited the market through the retailer of last resort scheme between 1 May and 11 October 2022.[71]

---

69 Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019, section 17.

70 The Essential Services Commission can vary the Victorian Default Offer following an 'uncertain or unforeseen event' or to correct an error.

71 Note that another 4 retailers have or will exit the market when surrendering their licence between July 2022 and March 2023: Rush Energy, Macquarie Bank, Bright Spark and Powerdirect. 3 retailers had no or very few customers prior to surrender, and one (Powerdirect) will transfer its customers to its parent company (AGL). A retailer surrendering their licence and ceasing to be an electricity retailer must apply to the AER to do so. A retailer may surrender its licence for a range of reasons.

Table 5.2: Retailers that have exited the market through the retailer of last resort scheme and approximate customer numbers, 1 May to 10 November 2022

Retailer	Exit date	Small customers
Pooled[72]	24 May 2022	1300
Enova[73]	22 June 2022	13,300
Powerclub[74]	12 July 2022	400
Mojo Power East (trading as People Energy)[75]	27 July 2022	500
Social Energy[76]	24 August 2022	280
Elysian Energy[77]	1 September 2022	2500

Note: Retailer numbers are only for New South Wales, South Australia, the Australian Capital Territory, South East Queensland, and Victoria. Small customers include residential and small business customers. Large business customers not included. Mojo Power East exited the retail market in New South Wales, Australian Capital Territory, South East Queensland, South Australia and Tasmania but continues to operate in Victoria, and as such its retailer authorisation is still active.

Table 5.2 does not include several retailers that have encouraged their customers to leave, ceased to offer market offers, or priced their market offers significantly above standing offer (or taken several of these actions). These retailers are noted under 'Some retailers are no longer seeking new market offer customers' in Section 5.5.2.

While the majority of activity related to retailers exiting the industry, Ampol in June 2022 was authorised to be a retailer. In total, 5 retailers have been authorised by the AER since 1 January 2022.[78]

5.5.2. Customers have shifted away from smaller retailers

To provide an indication of recent customer movements across retailers, Table 5.3 provides information on changes in numbers of meters between groups of retailers. It sets out how the number of meters supplied by different categories of retailers changed from 1 May to 2 October 2022.

72 AER, *AER ensures continued supply for former Pooled Energy and Weston Energy customers* [media release], AER, 25 May 2022, accessed 9 November 2022.

73 AER, *AER ensures continued supply for former Enova Energy customers* [media release], AER, 22 June 2022, accessed 9 November 2022.

74 AER, *AER ensures continued supply for former Powerclub customers* [media release], AER, 13 July 2022, accessed 9 November 2022.

75 AER, *AER ensures continued supply for former Mojo Power East customers* [media release], AER, 20 July 2022, accessed 9 November 2022.

76 AER, *AER ensures continued supply for former Social Energy customers* [media release], AER, 24 August 2022, accessed 9 November 2022.

77 AER, *AER ensures continued supply for former Elysian Energy customers* [media release], AER, 2 September 2022, accessed 9 November 2022.

78 AER, *Public register of authorised retailers & authorisation applications*, AER website, n.d., accessed 9 November 2022.

The categories of retailers in Table 5.3 are below:

- The 'large retailers' category comprises the big 3 retailers (Origin, AGL and EnergyAustralia).
- The next segment includes government-owned retailers operating in Tasmania (Aurora Energy), Australian Capital Territory (ActewAGL) and regional Queensland (Ergon Energy). It also includes Red Energy and Lumo Energy (both owned by Snowy Hydro), and Momentum (owned by Tasmania's Hydro-Electric Corporation) which operate in regions with full retail competition.
- The rest of the non-big 3 retailers are primarily split across mid-size, small and very small categories based on a number of criteria including revenues, assets, liabilities and whether the retailer had generation assets in their wider corporate group.
- Embedded network retailers are intermediaries providing electricity to a separate small network, such as in a shopping centre or caravan park.

Table 5.3 reveals that between early May and early October 2022, customers were moving away from small and very small retailers primarily towards the big 3 retailers ('large retailers'), government owned retailers and mid-size retailers. While this churn is relatively small as a percentage of the total customer base, the impact on the small and very small retailers is significant, with very small retailers having lost 77% of their customers during this time.

Table 5.3: Change in market share, residential & small business customers, 1 May to 2 October 2022

Retailer type	Meter count ('000s)		Change	
	1 May 2022	2 October 2022	%	As % of Total
Total	**10,600**	**10,700**	**0.44%**	**0.44%**
Large retailers [Big 3]	6,590	6,670	1.29%	0.80%
Government owned retailers	2,200	2,240	2.10%	0.43%
Mid-size retailers	1,110	1,130	2.05%	0.21%
Small retailers	717	618	-13.8%	-0.93%
Embedded network and other retailers	0.41	0.52	28.2%	0.00%
Very small retailers	11.6	2.66	-77.0%	-0.08%

Source: AER and ACCC analysis of AEMO data.
Note: These figures represent meter numbers rather than customer numbers. Some customers may have multiple meters, though we consider the above figures to be broadly representative of customer movements. Includes South East Queensland, New South Wales, Australian Capital Territory, Victoria, Tasmania, and South Australia. Large business customers not included. Rounded to 3 significant figures.

A significant proportion of this change is driven by retailer of last resort events and retailers advising customers to leave. A proportion of customer growth for the larger retailers can also be attributed to a growth in total meter count of 46,300.

Some retailers are no longer seeking new market offer customers

In addition to the formal exits outlined above, other retailers are no longer seeking new market offer customers. Retailers Future X Power, Glow Power, Locality Planning Energy, Momentum Energy, ReAmped and Tango are all not accepting new customers on market offers in at least some regions (as of 9 November 2022).[79] Discover Energy, Electricity in a Box, Locality Planning Energy (or LPE) and ReAmped have also encouraged customers to leave to avoid price increases.

Customers will likely be impacted by their retailer advising them to leave. They may be required to expend time and effort seeking out a new retailer and could end up paying more for electricity due to switching providers in the midst of rising electricity prices and reduced consumer choice (see figures 5.1 and 5.4).

Locality Planning Energy issued a market announcement stating it had reduced its customer numbers and sold its hedging contracts.[80] Media has reported that another retailer also undertook similar behaviour.[81]

Retailer hedging contracts have significantly increased in value since May, when spot and hedging contract price increases accelerated. Retailers that are able to significantly reduce their load, such as by reducing customer numbers will no longer require these hedging contracts and may be able sell them. However, doing so does not require these retailers to formally exit the market through the retailer of last resort scheme. This means they can retain their retailer authorisation and start re-acquiring customers if they so choose.

Figure 5.1 and Figure 5.2 reveal the impact that the reduction in the number of retailers seeking new market offer customers has had on the availability of market offers and the number of retailers with market offers below the standing offer.

5.5.3. The number of available market offers has fallen

The ACCC has found that the availability of market offers, particularly those priced below the Default Market Offer has significantly reduced since the start of January 2022. Retailer exits, retailers no longer seeking new market offer customers, and pressures on costs have resulted in significant reductions in the number of market offers available to consumers.

In October 2022, the ACCC conducted analysis of market offer data from government-run websites Energy Made Easy and Victorian Energy Compare which include all market offers by retailers in the relevant regions. This data set only captures available offers available to new customers in the market and does not capture the electricity plans that existing customers are on.

ACCC analysis in Figure 5.1 shows the number of residential single rate market offers by region. It reveals a stark reduction in the number of market offers from non-big 3 retailers (the teal line) from May 2022 to October 2022. A clear rebound can be seen in the number of

---

79 ACCC analysis of Energy Made Easy market offer data as of 10 October 2022; Future X Power, *New to Future X Power?*, Future X Power website, n.d., accessed 9 November 2022; Glow Power, *Taking a short break*, Glow Power website, n.d., accessed 9 November 2022; Locality Planning Energy, *Important Information: Ergon Customer Update*, Locality Planning Energy website, n.d., accessed 9 November 2022; Locality Planning Energy, *Important Information: Energex Customer Update*, Locality Planning Energy website, n.d., accessed 9 November 2022; Momentum Energy, *Compare Energy Plans*, Momentum Energy website, n.d., accessed 9 November 2022; ReAmped Energy, *ReAmped Energy Home*, ReAmped Energy website, n.d., accessed 20 October 2022; Tango Energy, *Comparing Energy Plans for 2089*, Tango Energy website, n.d., accessed 9 November 2022.

80 Locality Planning Energy, *Hedge position realised for $17.8 upfront* [media release], Locality Planning Energy, 26 September 2022, accessed 9 November 2022.

81 Colin Packham, *Energy retailers investigated for $100m Hedges*, Australian Financial Review, 7 July 2022, accessed 9 November 2022.

market offers by non-big 3 retailers from 1 July 2022, which was the date that the Default Market Offer and Victorian Default Offer were reset to higher levels.

In contrast, the reduction in the number of market offers from the big 3 retailers – AGL, EnergyAustralia and Origin (the purple line) – was much smaller. There has been a slight increase in the number of market offers recently, but the total remains much lower than the level in May 2022.

Figure 5.1: The availability of market offers has reduced significantly since May 2022

Number of single rate market offers, residential, June 2020 to October 2022

Source: ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.
Note: Data for non-big 3 retailers is not available for November and December 2020 and have been replaced with modelled estimates.

The same overarching trend is evident for small business customers (see Figure C7 in Appendix C). It reveals a big drop in the number of non-big 3 market offers, which is significant as these are often the retailers supplying small business customers. The number of market offers by big 3 retailers appears to have remained stable.

Figures C8 and C9 in Appendix C show that the number of market offers below the standing offer has also reduced drastically for both residential and small business customers since May 2022.

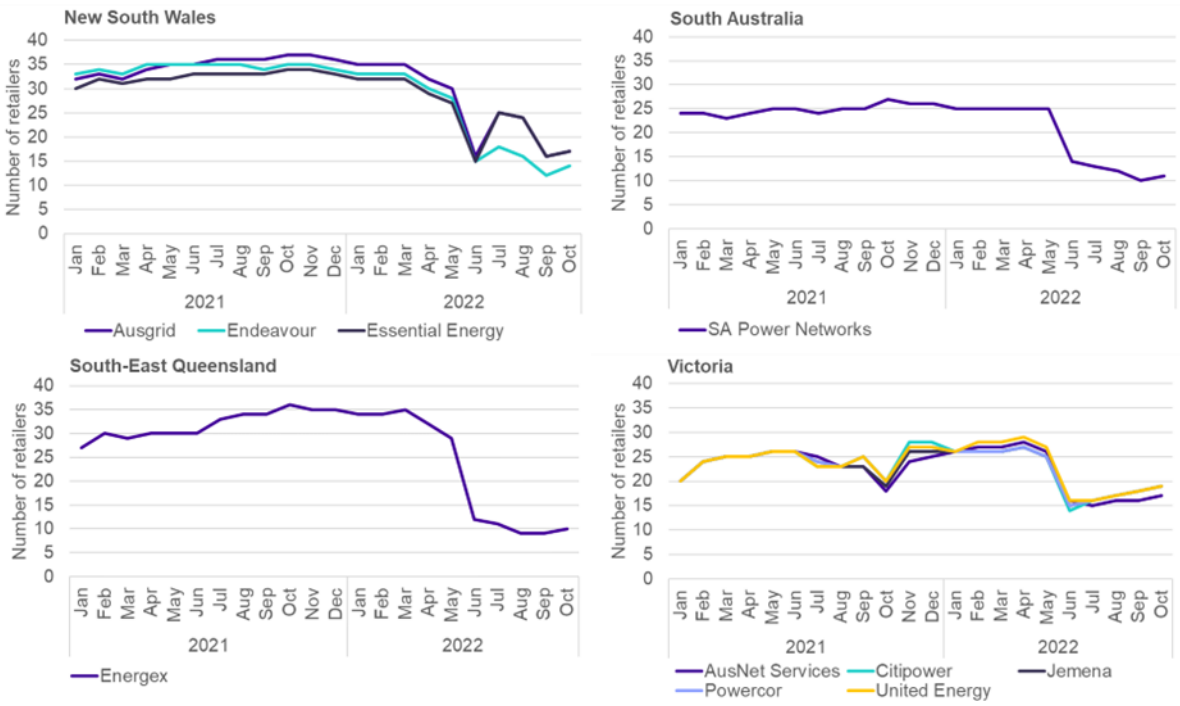
5.5.4. The number of retailers offering prices below the standing offers has also contracted

As retailers can offer multiple market offers and consumers are typically choosing between retailers rather than individual offers, we also considered the number of retailers that have at least one market offer below the Default Market Offer and Victorian Default Offer.

Figure 5.2 demonstrates that the number of retailers with at least one residential market offer under the standing offer has dropped significantly in New South Wales, South East Queensland, South Australia and Victoria. The change is most drastic in South East Queensland. This indicates a clear reduction in competition from retailers for new customers, and that new customers have reduced choice.

Figure 5.2: Choice of retailers with offers below the standing offers has plummeted

Number of retailers with at least one residential, single rate market offer below Default Market Offer and Victorian Default Offer, by distribution zone, as at 10 October 2022



Source: ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.

Figure C10 in Appendix C shows that the same broad trend is evident for the number of retailers with at least one small business market offers below the standing offer.

The Independent Pricing and Regulatory Tribunal noted that retailers are still competing for customers in New South Wales, but key indicators of competition are now in decline.[82] It noted that 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, and that this may have implications for competition in the medium term.[83]

[82] Independent Pricing and Regulatory Tribunal (IPART), *Monitoring the NSW retail electricity markets 2021–22*, New South Wales Government, October 2022, p 48.

[83] IPART, *Monitoring the NSW retail electricity markets 2021–22*, New South Wales Government, October 2022, p. vi.

5.5.5. Retail prices are converging around standing offers

The analysis in Figure 5.3 (and Figure C11) shows market offers of a representative retailer as a percentage of the standing offer in force in each region at that time. We have not plotted the absolute minimum offer in each region. This avoids potentially misleading outcomes, as the absolute minimum offer may be an outlier, especially because the minimum offer from an individual retailer may not be available to all consumers.

Rather, to illustrate a representative range, we first filter to find the cheapest offer from each retailer, and then identify the median offer from these minimum offers for each group (that is, big 3 or non-big 3 retailers). We then do the same to calculate the median of maximum offers for each group. The range from the median-of-minimums to the median-of-maximums shows the likely range of customer outcomes. The charts assume a usage profile consistent with the standing offer in each distribution zone.

Figure 5.3 (over page) shows that market offers for residential customers have converged towards the Default Market Offer and Victorian Default Offer since May 2022. All regions see the minimum and maximum figures increase to approach the standing offer, with the range now hovering generally within or close to 5% of these price caps. The range for non-big 3 offers is particularly reduced, sitting very close to 100% of the Default Market Offer and Victorian Default Offer. At present, most smaller retailers do not have any market offers below the standing offer.[84]

ACCC analysis reveals that as of 10 October 2022:

- 98% of big 3 residential market offers and 90% of non-big 3 offers were priced close to the Default Market Offer (that is, with a discount of 8% or less) or Victorian Default Offer, with more than a quarter of all offers price above the default offer
- 94% of big 3 small business market offers and 89% of non-big 3 offers were priced at close to the Default Market Offer (that is, with a discount of 8% or less), with more than a third of offers priced above the default offer.[85]

[84] ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.

[85] ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.

Figure 5.3: Residential market offers are coalescing around the Default Market Offer and Victorian Default Offer

Median of minimum and median of maximum market offers compared with the Default Market Offer and Victorian Default Offer, residential single rate, June 2020 to October 2022

Source: ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.
Note: The graphs above show the medians of minimum and maximum market offers for each retailer. They do not necessarily indicate the cheapest or most expensive offer available in the market. Assumed annual usage in Ausgrid is 3900 kWh, in Endeavour is 4,900 kWh, in Essential is 4,600 kWh, in Energex is 4,600 kWh, in South Australian Power Network is 4,000 kWh, in all Victorian distribution zones is 4,000 kWh. Data for November and December 2020 are not available and have been replaced with modelled estimates.

Consistent with residential customers, small business market offers from a representative retailer have also converged towards the Default Market Offer for both big 3 and non-big 3 retailers in all regions (see Figure C11 in Appendix C). The change is much starker for non-big 3 retailers. Victorian small business market offers were already priced close to the Victorian Default Offer before May 2022.

5.6. Retail prices have increased

Since the June 2022 energy events, we have seen retailers pass on some of the increased costs through to consumers, in the form of increased retail prices. The following section discusses the price impacts on standing offers and market offers.

5.6.1. Standing offers prices are increasing

The Default Market Offer and Victorian Default Offer were able to include some increases in wholesale costs when they were determined in May 2022, resulting in the price increases presented in Table 5.4.[86] However, spot and hedging contract prices have continued to increase since May 2022 when the Default Market Offer and Victorian Default Offer were set, meaning these offers might not fully reflect retailer's wholesale costs.

Table 5.4: Increases in standing offer prices, by region and customer type, single rate without controlled load, 1 July 2022

Region	Residential	Small business
New South Wales	8.5 to 14.1%	10.0 to 19.7%
South Australia	7.2%	5.7%
South East Queensland	11.3%	12.8%
Victoria	1.2 to 9.2%	1.6 to 10.4%

Source: AER, *AER sets energy price cap to protect consumers* [media release], AER, 26 May 2022, accessed 9 November 2022; Essential Services Commission, *Victorian Default Offer 2022–23: final decision*, Victorian Government, 24 May 2022, p 6.
Note: Ranges are given for Victoria and New South Wales as there are multiple distribution zones in both states which have their own standing offer price.

5.6.2. Market offer prices are also increasing

The following analysis only reflect prices for customers entering new market offer contracts, not prices for those on existing offers. We have used indicative usage assumptions consistent with the standing offer in each distribution zone to make these calculations.

ACCC analysis of the estimated bills that would result from market offers on Energy Made Easy and Victorian Energy Compare has revealed that the median annual bill for residential customers has increased dramatically in recent months (see Figure 5.4). This increase is evident for both big 3 and non-big 3 retailer groups – though there were larger increases for non-big 3 retailers in Victoria and South Australia.

Between April and October 2022, the estimated median annual bill across the National Electricity Market has increased by $294 (or 23%) for residential customers and $1,440 (or 28%) for small business customers.[87] This is more significant than the increase in standing offers.

Figure 5.4 also reveals that the gap in the price of the median offer from a big 3 retailer and a non-big 3 retailer has now closed significantly. The non-big 3 median offer is now cheaper than the big 3 retailers offer in New South Wales and Victoria. The higher bills across the

[86] Essential Services Commission, *Wholesale prices drive price rise in Victorian electricity default offer* [media release], Victorian Government, 24 May 2022, accessed 9 November 2022; AER, *AER sets energy price cap to protect consumers* [media release], AER, 26 May 2022, access 9 November 2022.

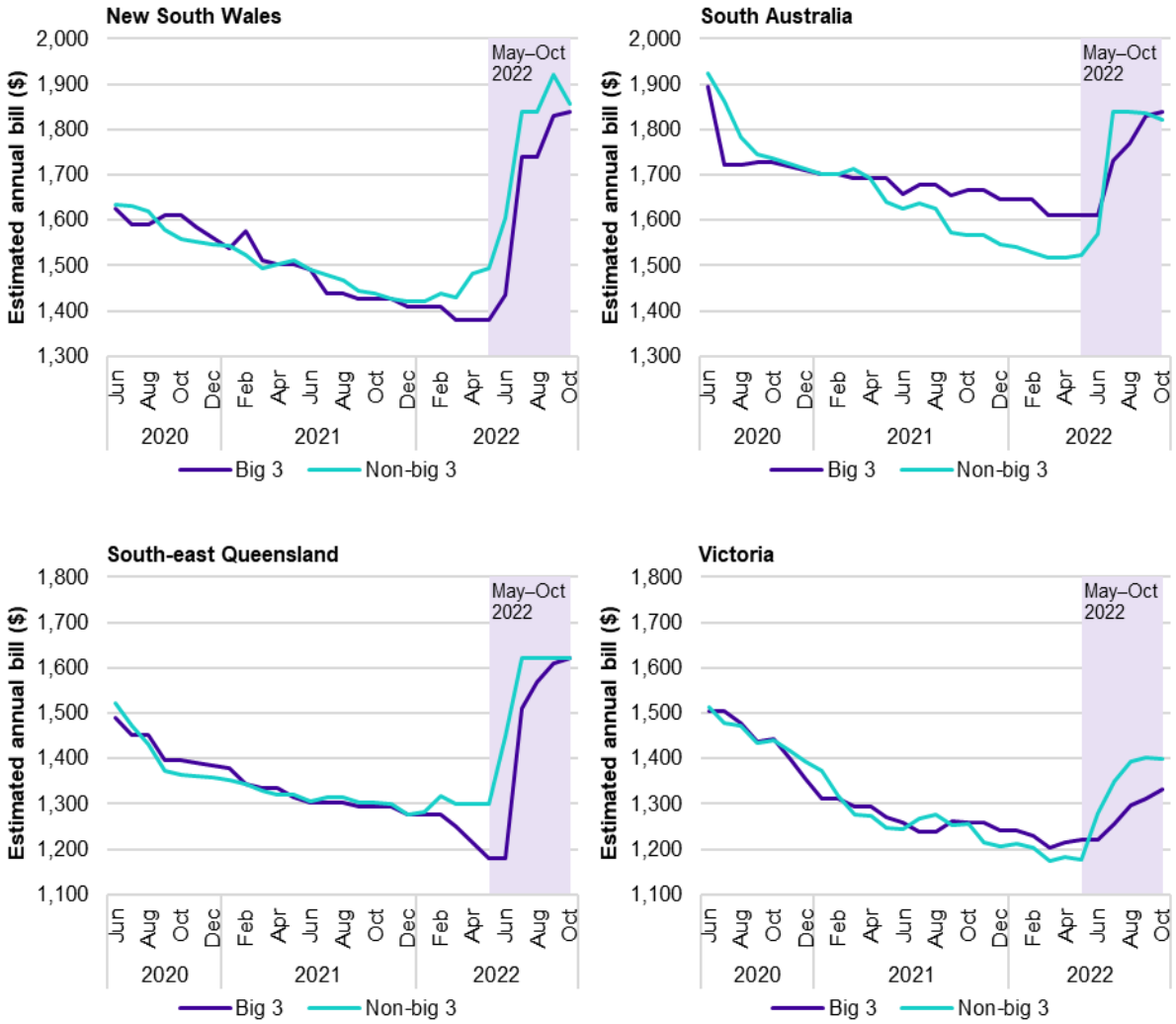
[87] ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data.

board reflect the impact of higher wholesale spot and hedging contract prices flowing through to customers.

This is an abrupt change from the 18 or so months leading up to May 2022, where reductions in wholesale costs were flowing through to retail prices.

Figure 5.4: Market offer prices have increased in all regions

Estimated median annual bill, residential single rate market offers ($, real), June 2020 to October 2022



Source: ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.
Note: Assumed annual usage in Ausgrid is 3,900 kWh, in Endeavour is 4,900 kWh, in Essential is 4600 kWh, in Energex is 4600 kWh, in South Australian Power Network is 4000 kWh, in all Victorian distribution zones is 4000 kWh. Data in November and December 2020 are not available and have been replaced with modelled estimates.

For small business customers in the Default Market Offer regions, there has been a similar story with a sharp rise in the prices of market offers from both big 3 and non-big 3 retailers (see Figure C12 in Appendix C). Analysis also reveals the prices of big 3 and non-big 3 market offers are generally converging.

5.7. Amending policy settings will help maintain competition

The AER should have the option to adjust the Default Market Offer during a price-review cycle. This will grant the AER an additional tool to navigate significant future risks and market disruptions that may impact the electricity retail market.

The Default Market Offer is set annually, with new prices taking effect on 1 July each year.[88] The regulations currently prevent the Default Market Offer from being adjusted if market conditions change dramatically during a price cycle.[89] Further detail on the Default Market Offer methodology and objectives is in Appendix C.

In contrast, the Victorian Default Offer can be adjusted mid-cycle. The Essential Services Commission's ability to vary the Victorian Default Offer is based upon 'uncertain or unforeseen' events. Further detail on the Victorian Default Offer methodology and objectives is in Appendix C.

Since the Default Market Offer was set by the AER in May 2022, market conditions have changed substantially. As set out in sections 5.5 and 5.6, this has impacted retail market competition:

- there is now reduced number of market offers (Figure 5.1)
- market offers have increased by more than the standing offer, reducing the price differential between market and standing offers (Figure 5.3).

Retailers generally use hedging contracts to reduce their exposure to the spot market, which may provide some insulation from market disruptions for a period. However, the change in market conditions has led to 6 retailers exiting the market, and other retailers no longer seeking new market offer customers. We observe that there are further pressures on retailers which may impact their capacity to cope with further market disruptions, including:

- difficulty accessing new hedging contracts, especially for smaller retailers (Section 3.2.5)
- higher prudential requirements from AEMO and larger margin requirements on hedging contracts (sections 3.2.1, 3.2.5, 3.2.6 and 3.2.7)
- the need to bear additional compensation costs associated with the June 2022 energy events (Section 5.3).

As noted in Recommendation 2, the AER's current review of the Default Market Offer wholesale cost methodology and any future methodology reviews by the Essential Services Commission should consider this report's findings regarding shifts in contracting behaviour and margining and collateral requirements identified Section 3.2.

5.7.1. The ability to re-open the Default Market Offer will improve consumer outcomes

Introducing a mechanism for price adjustments to the Default Market Offer outside of the annual price review process will give the AER more tools to manage future significant changes in market conditions.

The ACCC believes that it is in the long-term interest of consumers to maintain retail competition. This may require the ability for retailers to quickly align any new material cost and cash flow pressures with the prices they charge customers.

---

88 Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019, section 16.

89 Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019, section 17.

The ability to make price adjustments to the Default Market Offer should be symmetrical. This would allow the AER to reduce the Default Market when costs significantly decrease, allowing the default offer to continue to protect standing offer customers.

5.7.2. Threshold for re-opening the Default Market Offer

Designing a clear and effective trigger for when the Default Market Offer should be re-opened will be crucial for balancing policy flexibility and the risk of regulatory uncertainty.

The ACCC considers there to be a strong argument for a re-opening mechanism based around the variation clause for the Victorian Default Offer. Devising a clause based around events that are '*uncertain or unforeseen*' (or clerical errors) by the responsible authority means adjustments to the Default Market Offer will be limited to circumstances that result in a price that differs from retailers experienced costs.

Recommendation 3

The Electricity Retail Code should be amended to provide the Australian Energy Regulator the flexibility to adjust the Default Market Offer determination outside of the annual price setting cycle in the event of uncertain or unforeseen circumstances

Current policy settings limiting the Default Market Offer to annual price resets are resulting in insufficient policy flexibility. The AER should be able to reduce the Default Market Offer when costs significantly decrease and to increase the Default Market Offer when costs significantly rise. Doing so will give the AER the flexibility to protect standing offer customers and support retailers in periods of rapidly changing market conditions in order to maintain retail competition for the long-term benefit of consumers.

6. Consumers are feeling the pressure of rising prices

Key points

- This has been a year of significant disruption and volatility in energy markets and the factors driving high prices are going to be in play for the foreseeable future.
- The extent to which households can quickly and cheaply affect their bills is limited and the number of customers experiencing payment difficulties and financial hardship will almost certainly increase.
- Although better deals might be harder to find at the moment, we encourage consumers to consider how much they are currently paying for their electricity and to shop around for an offer that might be cheaper.
- Consumers can visit a government comparison website to compare generally available offers and, using their own usage data, find the cheapest offer for their household. Commercial (third-party) comparison services may help some consumers, but the ACCC remains concerned that they do not necessarily compare all offers from all retailers nor recommend the cheapest offer and they may have conflicted incentives.
- Prescribing a mandatory code of conduct would ensure that energy price comparison services are required to operate fairly and transparently and that they provide consumers with all the necessary and important information they need to choose an offer. The introduction of a mandatory code will also complement the recent expansion of the Consumer Data Right to the energy sector.
- When advertising or promoting offer pricing, retailers must show the price of their offer in comparison to the reference price. The reference price is a government-set benchmark price that can help customers to quickly compare the value of different offers. More customers will soon benefit from reforms requiring retailers to tell customers on their bill if they are on the best offer for them and how to switch.
- Customers in embedded networks don't have the same ability to shop around and choose their retailer nor do they receive the price protection of a default offer (except in Victoria). We recommend the Default Market Offer price cap should apply to retailers' prices for embedded network customers to offer them protection against high prices from the only retailer available to them.
- As the economics of installing solar panels continues to improve, it is likely that more customers will install solar panels to reduce their reliance on electricity from the grid. However, for many households, investments in solar and other energy efficiency renovations will remain either unaffordable or not within their control to undertake.
- Energy is essential to people's lives and wellbeing. With prices expected to remain high for now, governments and regulators have roles to ensure policy and regulatory settings around energy affordability continue to evolve to better protect the wellbeing of households facing the most vulnerable of circumstances. We welcome the release of the AER's new vulnerability strategy - Towards energy equity: a strategy for an inclusive energy market, which advocates for game changing sector-wide reform.

This has been a year of significant disruption and volatility in energy markets. Prolonged periods of elevated wholesale spot prices are continuing to drive increased electricity contract prices, which is flowing through to customers in the form of increased retail electricity prices and reduced choice as the market contracts.

The Default Market Offer is the maximum price an electricity retailer can charge a standing offer customer and it is determined annually by the AER for each distribution zone in South East Queensland, South Australia, and New South Wales. Compared with last year,

standing offer customers in those regions faced price increases of between 7.2% and 18.3% from 1 July 2022.[90] Standing offer customers in Victoria faced increases of between 1.2% and 9.2% when the revised Victorian Default Offer took effect.[91]

Market offer prices, which are set by retailers and traditionally cheaper than standing offers, have also increased. Our analysis of market offer prices in Section 5.6 shows that increases in market offer prices between April 2022 and October 2022 have already resulted in the median annual bill of a typical residential customer increasing by around $300 per year, or 23%, and there are signs this will increase further.

The factors driving high prices are going to be in play for the foreseeable future and Australia's transition will involve additional costs for consumers from other sources too, such as network expansion to connect new renewable sources. While we encourage consumers to check they are not paying more than necessary for their electricity and consider options to reduce consumption, we acknowledge the extent to which a household can quickly and cheaply affect their bill is limited. The number of customers experiencing payment difficulties and financial hardship will almost certainly increase.

A pulse survey conducted by Energy Consumers Australia in August 2022 found that consumers are concerned that they won't be able to afford energy within the next 3 years. Of the households surveyed, 86% said they were concerned about the affordability of their future energy bills, up from 81% in April. Furthermore, 94% of households surveyed believed energy would soon become unaffordable for other Australian households.[92] These findings are important, and even more so in the context of the rapidly rising energy prices that we are continuing to see.

In addition to the direct financial pressure of rising bills, energy affordability challenges will have significant consequences for the wellbeing of households around the country as people:

- put up with extreme weather conditions, such as being too hot in summer and too cold in winter
- reduce their spending on other essentials to pay electricity and gas bills
- limit their usage of devices for work and education at home, and/or
- accrue debts and bad credit histories.[93]

6.1. Households should shop around for a better offer

Prior to the escalation of electricity prices from around the middle of this year, the savings for customers prepared to shop around for a better offer could have been quite significant. Most retailers' market offers were cheaper than the Default Market Offer and Victorian Default Offer. However, by October 2022, most market offers were close to the standing offers with some more expensive than the regulated price, and the savings from switching had reduced.[94] This means there may be customers on market offers who are unaware that they are now paying more than the standing offers.

---

90 Australian Energy Regulator, *Default market offer prices 2022–23 – Final determination*, Commonwealth of Australia, 26 May 2022, p 3.

91 Essential Services Commission, *Victorian Default Offer 2022–23: Final decision*, 24 May 2022, p 1.

92 Energy Consumers Australia, *Pulse Surveys June to August 2022,* Energy Consumers Australia, accessed 20 October 2022.

93 D Bryant, E Porter, I Rama and D Sullivan, *Power pain: an investigation of energy stress in Australia*, Brotherhood of St. Laurence, 2022, p 9.

94 ACCC analysis of Energy Made Easy data, see Appendix B: Methodology for cost stack data collection and analysis.

The sharp increases in wholesale prices have resulted in a number of retailers exiting the market and others reducing their range of offers or pulling their offers for new customers (see Section 5.6). Between April 2022 and October 2022, our analysis shows the total number of published residential electricity market offers (across all National Electricity Market jurisdictions) has fallen by around 29%.[95]

Although better deals might be harder to find, we encourage customers to consider how much they are currently paying for their electricity and to shop around for a plan that might represent better value for their household.

There are an increasing range of tools and initiatives designed to make it easier for customers to compare offers and switch, but this doesn't mean it is a quick and easy undertaking for everyone. Consumers' capacity to navigate the energy market varies across individuals and circumstances, and even for the most energy literate consumers it can be a difficult and time-consuming exercise to confidently make decisions about their energy use. Households facing the most vulnerable of circumstances will be among those facing the highest challenges.

In its 2022 investigation of energy stress in Australia, the Brotherhood of St. Laurence discussed that a consumer's capacity to navigate the energy market is influenced by a range of factors including available time; trust in information provided; language, literacy and numeracy; internet access; and awareness of energy price variability.[96] The ACCC has also previously found that low-income households, those with limited internet access and those with limited English proficiency pay above-average prices per unit of energy.[97]

6.1.1. Compare offers on an independent government comparison website

Government comparison websites, specifically the AER's Energy Made Easy (www.energymadeeasy.gov.au) and the Victorian Government's Victorian Energy Compare (compare.energy.vic.gov.au), make it easier for consumers to find and compare energy offers in their postcode using their own electricity usage information. Government websites are free to use, independent and require all retailers to participate and maintain accurate information so consumers can trust the information they receive.

To encourage Victorian households to compare offers the Victorian Government is currently offering households a one-off $250 payment. The payment is available to all Victorian households who visit the Victorian Energy Compare website or engage with an energy affordability service by 30 June 2023. Households do not need to switch to be eligible.[98]

6.1.2. A mandatory code should apply to third-party comparison services

While government energy price comparison services are available, many consumers continue to use third-party (commercial) price comparison services to research and select energy plans. Unlike government comparison services, third-party comparison services may not compare offers from all retailers in the market, may not recommend or rank offers according to what is cheapest for the consumer and are unlikely to explain how they recommend offers.

---

95 ACCC analysis of Energy Made Easy data, see Appendix B: Methodology for cost stack data collection and analysis.

96 D Bryant, E Porter, I Rama and D Sullivan, *Power pain: an investigation of energy stress in Australia*, Brotherhood of St. Laurence, 2022, p 9

97 Colmar Brunton for the Australian Competition and Consumer Commission, *Consumer outcomes in the National Electricity Market*. Published as Appendix 12 of the Australian Competition and Consumer Commission Retail Electricity Pricing Inquiry, Commonwealth of Australia, 2018, p 7.

98 Premier of Victoria, *Slashing Energy Bills With $250 Power Saving Bonus* [media release], Victorian Government, 2 May 2022, accessed 31 October 2022.

In 2014, the ACCC published a report into the comparator website industry, which raised concerns including the market coverage of comparison websites, savings achieved using comparison services, value ranking, and undisclosed commercial relationships affecting recommendations.[99] Subsequently, the ACCC published guidance for comparison websites and suppliers which aimed to reduce misleading and deceptive conduct by the industry.[100]

While the ACCC can, and does, act against price comparison services that mislead or deceive consumers, contravening the Australian Consumer Law, existing provisions do not require comparison services to act in the best interests of consumers. For instance, in 2020, the Federal Court ordered iSelect to pay $8.5 million in penalties for making false or misleading representations about its electricity comparison service.[101] Had iSelect not made misleading representations about how they recommended offers, iSelect's conduct in recommending offers to customers that were not the most suitable or competitive would not have attracted a penalty.

In 2018, the ACCC recommended introducing a mandatory industry code for third-party intermediaries (including price comparators). The recommendation was in response to our findings that commercial interests between retailers and comparators were resulting in services not operating in the interests of consumers and further complicating the retail electricity market (see Box 6.1).[102]

Box 6.1: Concerns about third-party comparison services

In the ACCC's 2018 Retail Electricity Pricing Inquiry, we identified a number of concerns about third-party intermediaries (particularly comparison services), including:

- search results were presented on the basis of commercial relationships rather than consumer interest (for example 'sponsored offers' appearing further up the rankings than they would otherwise appear)
- different commission payments were agreed between commercial comparators and the retailers represented creating incentives to promote some offers over others regardless of consumer benefit
- a lack of disclosure of commissions and commercial relationships with retailers
- a lack of disclosure of the extent of the market and products featured in the comparison allowing consumers to assume that the highest ranked offers are the cheapest in the market
- a lack of disclosure of the methodology and assumptions used for estimating bills and making recommendations when consumers do not provide their consumption information
- a lack of retailer control over the way that third-party intermediaries collect explicit informed consent when they are responsible for making the switch.

While attempts have been made to address such conduct through voluntary industry codes including the lapsed Energy Comparator Code of Conduct and the newly formulated National Customer Code for Energy Comparators and Energy Moving Services, voluntary industry codes are unable to achieve the substantial market-wide improvements that are required. As voluntary codes require businesses to subscribe or opt-in, market coverage may not be

---

99 ACCC, *The comparator website industry in Australia*, Commonwealth of Australia, 2014, p 5.

100 ACCC, *Comparator Websites: A guide for comparator website operators and suppliers*, Commonwealth of Australia, 2015.

101 ACCC, *iSelect to pay $8.5 million for misleading consumers comparing energy plans* [media release], 8 October 2020.

102 In its 2018 Retail electricity pricing inquiry final report, *Restoring electricity affordability & Australia's competitive advantage*, the ACCC recommended that the Australian Government should prescribe a mandatory code of conduct for third-party intermediaries, which addressed the issues discussed in chapter 14 of that report (see recommendation 34).

achieved, sanctions for non-compliance are normally limited and obligations under the code may not go far enough to address concerning conduct.

The Consumer Data Right (CDR) is an important data sharing and portability program that is intended to enable new products and services that make everyday life easier and more convenient for consumers and enliven competition across the economy.

The CDR has recently been extended to include the energy sector. The introduction of the CDR into this sector means Australian households and businesses are able to access more information about their energy use and their energy plan. This can help them make more informed decisions when looking for better, more tailored deals to help with the cost of their energy bills.

The CDR includes strong privacy and information security provisions, including consumer consent mechanisms, and entities need to be accredited before they are able to receive consumer data from an energy company. Some product comparison websites have already been accredited by the ACCC under the CDR and are required to meet relevant regulatory obligations.

The introduction of a mandatory code for energy price comparison services would form a necessary complement to the arrangements that apply to providers offering energy-related services, including comparison services, under the CDR.

Recommendation 4

A mandatory industry code of conduct should apply to third-party energy price comparison services

Unlike government price comparison services, third-party price comparison services may not compare offers from all retailers in the market nor necessarily recommend the cheapest offer. Prescribing a mandatory code of conduct would ensure that price comparison services are required to operate fairly and transparently and that they provide consumers with all the necessary and important information they need to choose an offer. The introduction of a mandatory code will also complement the recent expansion of the Consumer Data Right to the energy sector.

6.1.3. The reference price provides a quick comparison of the value of offers

For customers looking to switch to a new offer who don't want to undertake a full comparison of all available offers on Energy Made Easy, they can use the 'reference price' information published by retailers to make a quick, generalised comparison of the relative value of different offers.

The reference price is a benchmark price for electricity set by the AER. It's based on average electricity use in each area each year. Customers can use it to compare different plans to the reference price to find a good deal.

As required by the Electricity Retail Code, retailers must use a percentage to show consumers how their advertised or promoted price of each offer compares to the reference price. The Victorian Default Offer is used in a similar way in Victoria. Consumers in the Australian Capital Territory also benefit from a reference price determined by the Australian Capital Territory Government.

The Electricity Retail Code applies to electricity retailers with small customers in South Australia, New South Wales, and South East Queensland. The 2 main objectives of the code are to:

- provide a simple method for consumers to compare offers by requiring retailers to communicate prices in respect to a government set reference price
- apply a price cap on standing offers (the Default Market Offer) to prevent retailers from charging well above their supply costs

The ACCC actively monitors offers and engages with retailers to ensure price representations are consistent with the Default Market Offer price and accurately reflect how an offer compares to the reference price.

Box 6.2: The ACCC's enforcement of the Electricity Retail Code

Although retailer compliance with the Electricity Retail Code has generally been high, we have increased our compliance monitoring in recognition of the importance for customers to confidently engage in the market and ensure they are on the best deal. The Code assists by making it easier to shop around.

Since the Code was introduced in 2019, we have monitored compliance, engaged with retailers, and issued 4 infringement notices. During that time, electricity retailers have also paid $1.4 million in penalties for actual and alleged breaches of the misleading and deceptive conduct provisions of the Australian Consumer Law.

The ACCC has complemented its regular monitoring by compelling information from retailers about price change notifications sent directly to existing customers. This is the first time we have used this approach to monitor compliance with the Code. The information, in addition to investigations into the conduct of specific retailers, is critical in considering claims that retailers have misled customers.

6.1.4. Requiring retailers to tell customers if they are on the best offer

Since 2019, energy retailers in Victoria have been required to advise customers whether they are currently on the best offer for them (compared to other plans offered by that retailer), and how much they could save by switching. The 'best offer' information must be provided at least quarterly for electricity bills, and at least every 4 months for gas bills.[103]

The AER announced a similar requirement as part of its Better Bills Guideline. The guideline, released on 31 March 2022, establishes obligations on energy retailers when preparing and issuing bills for small customers to make it easier for them to understand their billing information. It also specifically requires energy retailers to tell their customers, on their bill, whether they could be on a better offer and how to switch. Energy retailers in Queensland, New South Wales, the Australian Capital Territory, South Australia, and Tasmania are required to implement the guideline in 2023.[104]

[103] Essential Service Commission, *Getting the best energy offer*, Victorian Government website, accessed 20 October 2022.

[104] The Australian Energy Market Commission (AEMC) made a final rule to give retailers more time to comply with the new provisions in the Australian Energy Regulator's Better Billing guideline. This came in response to a rule change request submitted by the Australian Energy Council. The final rule will change the implementation date from 31 March 2023 to 30 September 2023, although retailers may choose to use the new provisions before this time. See Delaying implementation of the AER Billing guideline.

6.1.5. The Default Market Offer should protect embedded network customers

Embedded networks are private electricity networks which serve multiple premises and are only connected to the grid, through a 'parent meter' connection point. Typical examples include apartment complexes, retirement villages, and caravan parks, which can often be home to consumers facing some of the most vulnerable circumstances.

The owner of a site with an embedded network usually buys energy from an energy retailer and then 'onsells' the energy to the different customers at the site. Customers of retailers in embedded networks are therefore often unable to choose their own retailer and, outside of Victoria and the Australian Capital Territory, are not protected by price regulation usually applied to monopoly services.

For households in South East Queensland, New South Wales and South Australia that are not part of an embedded network, the Default Market Offer acts to cap standing offer prices to protect customers who do not engage in the market from excessive prices. However, customers in embedded network are expressly excluded from the protections of the Electricity Retail Code (which applies in those jurisdictions) and therefore not protected by the Default Market Offer price cap.[105]

At a time of increased price volatility and higher prices, we consider it even more important that customers in embedded networks also receive the price protection of the Default Market Offer. This will afford embedded network customers in South East Queensland, New South Wales, and South Australia with equivalent protections as customers in embedded networks in Victoria and the ACT currently receive.

This is consistent with the position we stated in our October 2021 submission to the Australian Government's Post-Implementation Review of the Electricity Retail Code.[106] We also note the AER is advocating for the Default Market Offer to be extended to all embedded networks customers.[107]

Recommendation 5

The Electricity Retail Code should be amended to apply the Default Market Offer price cap to authorised retailers' prices for embedded network customers

Embedded network customers of authorised retailers are expressly excluded from the protections of the Electricity Retail Code, which applies to authorised retailers in South East Queensland, New South Wales, and South Australia. The Code should be amended to provide embedded network customers in these regions with equivalent price cap protections as embedded network customers in Victoria and the Australian Capital Territory.

---

105 Embedded network customers who are billed by an exempt seller (rather than a retailer) are indirectly protected by the Default Market Offer price cap. Exempt sellers are subject to the Australian Energy Regulator's *Exempt Selling Guideline*, which requires them not to charge a price higher than the local area retailer's standing offer price (that is, the Default Market Offer price).

106 Australian Competition and Consumer Commission, *ACCC submission to Australian Government Electricity Retail Code review*, 6 October 2021.

107 See action 11 of Australian Energy Regulator, *Towards energy equity – a strategy for an inclusive energy market*, Commonwealth of Australia, 20 October 2022.

6.1.6. Checking for eligible concessions can offset annual bills

Eligibility for an energy-specific concession varies around the country; but is typically based on an indicator of low income.[108] The value of an electricity concession could be in the order of several hundred dollars annually. Recent analysis published by the Consumer Policy Research Centre indicates there is a sizable number of concession card holders in each state who are eligible for an energy concession but for various reasons do not receive this entitlement on their energy bills. Particularly in a context of rising electricity prices and broader cost of living pressures, ensuring low-income consumers receive their entitlements is key to improving affordability and helping to mitigate payment difficulty.[109]

Across national energy market states, the Consumer Policy Research Centre report suggests the gap between eligible customers and those who receive their local concession ranges from 41% in the ACT to 7% in Victoria. There are a number of possible explanations for the gap and these reasons can vary between states due to the way concession schemes are managed. However generally gaps arise because the onus is on the customer to self-identify that they are eligible for an energy concession, to apply to their retailer to have the concession applied to their account, and to ensure the details of their relevant concession card (including if it is renewed following expiry) are kept up to date. If a customer switches retailers, they will need to advise their new retailer of their concession status.

6.2. Managing rising electricity prices by reducing consumption

In addition to shopping around for the cheapest offer, rising prices may prompt consumers to consider what else they can do to manage their electricity bills into the future.

While investments in rooftop solar, energy efficient appliances and other home upgrades can help reduce a home's reliance on electricity from the grid, these are big investments and for many, they may be unaffordable, too complex, or not within their control to undertake. This is particularly the case for tenants of social housing, private rentals, and residents of apartment complexes.

Providing access to information and tools they can trust may help some consumers make informed decisions about their energy options over the longer term. According to a recent pulse survey conducted by Energy Consumers Australia, only around half of consumers surveyed reported feeling confident they have access to the information they need to make decisions about their energy services.[110]

6.2.1. Increasing the accessibility of rooftop solar

Installing rooftop solar is a significant financial investment, and the benefits accrue over many years. The cost of installing a standard rooftop solar panel system can be in the order of $3,000 to $12,000, or even higher depending on where a customer lives and the size of the system.[111] Solar panels also require regular maintenance to ensure the system continues to operate at its maximum efficiency.

In our May 2022 inquiry report, we discussed the upward trend in the prevalence of rooftop solar. Residential customers are driving this solar uptake, although there is still gradual

---

108 In Queensland, customers 65 years and over who work 35 hours or less in paid employment are eligible for a concession in that state via the Queensland Seniors Card. In all other states and territories, eligibility criteria include a measure of income or a medical condition.

109 Consumer Policy Research Centre, *Mind the Gap – Identifying the gap between energy concession eligibility and concessions received*, Consumer Policy Research Centre, November 2022, p 4.

110 Energy Consumers Australia, *Pulse Surveys June to August 2022,* Energy Consumers Australia, accessed 20 October 2022.

111 Wrigley, K, *Solar installation costs explained*, Canstar Blue website, 1 March 2022, accessed 20 October 2022.

growth in solar by small business customers. In 2019, 2020 and 2021 the proportion of households with solar was 16%, 18% and 22%, respectively.[112] The proportion of small business customers over the same period with solar was 6%, 7% and 9%, respectively.[113]

Community concerns about the environment, particularly the impact of fossil fuel generation on carbon emissions, is a key factor in the growing uptake of rooftop solar.[114] We have previously reported that customers experiencing financial hardship have a high reliance on electricity from the grid.[115] While the prevalence of rooftop solar is increasing among all customer groups, the prevalence among customers facing payment difficulties remains lower. In addition to the prohibitive cost, this is also likely due to other significant barriers, such as not owning the home or living in an apartment complex.

There are a number of state and local government initiatives available to improve the affordability and accessibility of solar to low-income households around the country, including initiatives designed to incentivise eligible providers of rental properties to install rooftop solar to ultimately help renters benefit from solar.[116]

6.2.2. Improving the energy efficiency of housing

Lower income households, and particularly those living in rental homes or social housing, are among the most vulnerable to rising energy prices. Up to 50% of home energy usage goes to heating and cooling and appliances can account for around 30% of usage.[117] In addition to living in homes that are more likely to be poorly insulated and more reliant on inefficient appliances that are cheap to buy but expensive to run, renters lack the agency of homeowners to take action to reduce their home energy consumption and therefore their bills.[118]

More than one third of Australians live in rented accommodation. Repairs, servicing, and maintenance, including most energy efficiency improvements, usually require agreement and funding from the landlord.[119]

Persistent barriers limit the extent to which low-income households and renters can invest in energy efficiency as a way of reducing costs. These barriers include the cost of high value energy efficiency upgrades and the limitations on tenants to improve the energy efficiency of

---

112 Australian Competition and Consumer Commission, *Inquiry into the National Electricity Market–May 2022 report*, Commonwealth of Australia, 20 June 2022, p 49.

113 There may be a range of reasons for the lower prevalence among business, including more customers who rent their (rather than own) their premises and fewer state government schemes providing incentives for solar panel uptake targeted towards small businesses.

114 Australian Energy Regulator, *State of the energy market 2021*, Commonwealth of Australia, 2 July 2021, p 20.

115 ACCC, *Inquiry into the National Electricity Market–May 2022 report*, Commonwealth of Australia, 20 June 2022, p 39.

116 Solar Victoria, Solar for community housing, Victorian Government website, reviewed 13 July 2022, accessed 9 November 2022; Solar Victoria, Solar rebates for rental properties, Victorian Government website, reviewed 17 August 2022, accessed 9 November 2022; Everyday Climate Choices, Home Energy Support: Rebates for Homeowners, ACT Government website, accessed 9 November 2022; Energy NSW, *Solar for low income households*, New South Wales Government website, accessed 9 November 2022; South Australian Government, *Solar offer to low income households*, South Australian Government website, last updated 26 October 2022, accessed 9 November 2022. Applications are now closed for this offer.

At the time of publication there did not appear to be solar programs by the Queensland Government for low-income households specifically. See Department of Energy and Public Works, *Affordable Energy Plan: making electricity more affordable*, Queensland Government website, last updated 26 July 2022, accessed 9 November 2022.

117 Department of Climate Change, Energy, the Environment and Water, *Renters*, Australian Government website, accessed 29 October 2022.

118 Australian Council of Social Service, *Energy Efficiency and people on low incomes* [PDF] 2013, accessed 31 October 2022. p 1.

119 Department of Climate Change, Energy, the Environment and Water, *Renters*, Australian Government website, Commonwealth of Australia, accessed 29 October 2022.

rental properties. Many of these barriers also exist in other households; however, they can be magnified for those on low incomes who have fewer housing options.[120]

Measures to support consumers to undertake energy efficiency upgrades can help some households better manage rising energy prices. There are a number of government initiatives in place to this effect, for example subsidies or rebates for upgrades of lighting, space heating and cooling, water heating, and draft sealing. These may also be available to landlords.

6.3. Protections for payment difficulties must be provided and enforced

Many households in Australia already experience trouble paying for the electricity they need to maintain their wellbeing. Even before the onset of large price increases through the second half of this year, data published in June 2022 by the AER indicated that increasing debt remained a concern with customers holding more debt for longer and accruing debt while on hardship programs.[121]

With energy prices expected to remain high into the future, governments and regulators have roles to ensure the policy and regulatory settings around energy affordability and market accessibility continue to evolve to better protect the wellbeing of customers experiencing the most vulnerable of circumstances.

An important message to share with customers who are facing payment difficulties is to contact their retailer and ask for help. Electricity retailers in all jurisdictions have obligations to identify and assist customers experiencing difficulty paying their electricity bills.

6.3.1. Affordability concerns existed before recent price escalations

The AER reports quarterly on the performance of the retail energy market. In its January to March 2022 quarterly report, which preceded the significant increases in wholesale prices and related events, the AER reported that the number of electricity customers on a hardship program had increased by 11% and the number of electricity customers on a payment plan increased by 5.2% over the 12 months to 31 March 2022. Of those customers entering hardship programs, an increasing number had larger debts. The number of customers in debt generally remained steady, but the number of customers holding debt of more than $500 and for more than 24 months was up 46% since March 2021.

Our May 2022 inquiry report continued to show that hardship customers and payment plan customers use significantly more electricity from the grid than general customers. This is likely in part due to these households being unable to afford (or being otherwise restricted from accessing) more efficient housing and appliances, including rooftop solar. Household size and composition (such as more people per household) could also be a contributor.

The higher usage and therefore higher bills faced by hardship and payment plan customers may contribute to the development of, and enduring cycle of, payment difficulties for customers already struggling to cover the cost of their electricity usage.

---

120 Bryant, D, Porter, E, Rama, I & Sullivan, D, *Power pain: an investigation of energy stress in Australia*, Brotherhood of St. Laurence, 2022, p 9.

121 AER, *Retail energy market performance update for Quarter 3, 2021–22*, Commonwealth of Australia, 30 June 2022, accessed 31 October 2022.

6.3.2. Retailers are required to help customers facing payment difficulties

Early intervention gives the retailer and customer more opportunity to together develop payment arrangements which may be more manageable for the customer and to explore options to reduce the customer's bill. It may also lead to a reduction in the chances of the household being disconnected, which is the ultimate manifestation of payment difficulties.

The regulatory frameworks that operate in Victoria and other National Electricity Market states and territories are similar, but not identical. The primary regulation in Victoria is the payment difficulty framework contained within the Energy Retail Code of Practice 2022 which is regulated by Victoria's Essential Services Commission. In the other states and territories, it is the National Energy Retail Law which is regulated by the AER.

The frameworks set out the minimum assistance retailers must provide for residential customers facing payment difficulties. This includes practical measures to help a customer lower their energy costs including, but not limited to, advising them of the energy plan that is most likely to minimise the customer's energy costs, based on the retailer's knowledge of the customer's pattern of energy use and payment history.[122]

6.3.3. Energy affordability is an important conversation

The policy discourse and regulatory frameworks around consumer vulnerability and energy affordability must continue to evolve as the needs of consumers change and are better understood.

On 20 October 2022, the AER released Towards energy equity: a strategy for an inclusive energy market.[123] The strategy recognises that there are systemic challenges in supporting consumers experiencing vulnerability. In particular, the incentives on consumer-facing energy businesses are not fully aligned to the goal of improving outcomes for those consumers who are experiencing vulnerability. In addition, the capability of these businesses to effectively support consumers is highly variable across the sector.

The strategy details 15 actions focused on improving the identification of consumers experiencing vulnerability, reducing barriers to participation in energy markets, supporting consumers experiencing payment difficulty, ensuring the consumer voice is heard in sector reforms, and improving affordability by reducing the cost to serve energy consumers. These actions include improving Energy Made Easy and working towards making it a switching service, considering the need for a payment difficulty framework in the National Energy Customer Framework, and advocating for amendments to the Default Market Offer, including that it should apply to embedded network customers.

The AER also considers there is a significant opportunity for stakeholders to work in collaboration to drive systemic change and advocate for an energy system and market that is inclusive of a broader range of consumers, and which provides better outcomes for consumers experiencing vulnerability. To this end, the strategy also advocates for sector-wide 'game changer' reforms, intended to better balance cost and risk across the market so that consumers experiencing vulnerability are identified early and get the support they need.[124]

Through stakeholder workshops with market participants, the AER is working with representatives from energy businesses, consumer groups, researchers, government, and market bodies to design a 'game changing' initiative for the energy sector. The group will use

---

122 Energy Retail Code of Practice 2022 s 128(1)(f)(i).

123 AER, *Towards energy equity – a strategy for an inclusive energy market*, Commonwealth of Australia, 20 October 2022.

124 AER, *Game changer*, AER website, Commonwealth of Australia, accessed 8 November 2022.

a human-centred design process to develop a solution concept, and it is hoped that a broad collaboration of the sector will advocate for this reform in 2023.

The ACCC welcomes the release of the *Towards energy equity* strategy and recognises its potential to change outcomes for consumers experiencing vulnerability and payment difficulties.

Appendix A: Terms of reference for the inquiry

COMPETITION AND CONSUMER ACT 2010

INQUIRY INTO ELECTRICITY SUPPLY IN AUSTRALIA

I, Scott Morrison, Treasurer, pursuant to subsection 95H(1) of the *Competition and Consumer Act 2010*, hereby require the Australian Competition and Consumer Commission (ACCC) to hold an inquiry into prices, profits and margins in relation to the supply of electricity in the National Electricity Market.

Matters to be monitored and taken into consideration in the inquiry include but are not limited to:

i. electricity prices faced by customers in the National Energy Market including both the level and the spread of price offers, analysing how wholesale prices are influencing retail prices and whether any wholesale cost savings are being passed through to retail customers;
ii. wholesale market prices including the contributing factors to these such as input costs, bidding behaviour and any other relevant factors;
iii. the profits being made by electricity generators and retailers and the factors that have contributed to these;
iv. contract market liquidity, including assessing whether vertically integrated electricity suppliers are restricting competition and new entry; and
v. the effects of policy changes in the National Electricity Market, including those resulting from recommendations made by the ACCC in its Retail Electricity Pricing Inquiry report of July 2018.

Where appropriate, the inquiry will make recommendations to government(s) to take any proportional and targeted action considered necessary to remedy any failure by market participant(s) (or the market as a whole) to deliver competitive and efficient electricity prices for customers.

The ACCC should make use of publicly available information, including that published by the Australian Energy Regulator, the Australian Energy Market Commission or the Australian Energy Market Operator, where appropriate.

This is not to be an inquiry into supply by any particular person or persons, or by a State or Territory Authority.

The inquiry is to commence today. The inquiry is to provide its first report to me by 31 March 2019 and no less frequently than every six months thereafter. The first report should focus on setting out the analytical framework for monitoring and provide information about expectations of market outcomes and market participant behaviour. The inquiry should also provide information to the market as appropriate. The inquiry is to conclude and provide its final report by 31 August 2025.

DATED THIS 20th DAY OF August 2018

SCOTT MORRISON
Treasurer

Appendix B: Methodology for cost stack and retail offer data collection and analysis

This appendix describes our methodology for analysing cost stack data. We describe our approach to data collection, quality assurance and our analytical methodology. Our cost stack dataset covers residential, small business and large business customers.

Cost stack data collection

The ACCC used its compulsory information gathering powers to obtain cost stack data relating to the 2021–22 financial year from 15 current National Electricity Market electricity retailers. These retailers provided electricity to about 86% of residential customers and about 79% of small and medium enterprise customers across the National Electricity Market in 2021–22.[125]

Broadly, retailers were required to provide information on their revenue and usage, wholesale costs, network costs (transmission and distribution), environmental (green) scheme costs, and retail costs and margins. Various breakdowns of these categories were provided although not all retailers were able to provide the exact same sub-categories. We required retailers to state their cost to serve and cost to acquire and retain attributable to a number of pre-defined categories. These categories constitute the largest common retailer costs categories, based on our analysis of the 2017–18 retail operating costs data collected in our previous inquiry, the Retail Electricity Pricing Inquiry.

The ACCC sought information for 3 different customer types: residential, 'small business' customers (small and medium enterprise customers) and 'large business' customers (commercial and industrial customers).

Some retailers did not record certain categories of costs on a region-by-region basis or by customer type, and therefore applied allocation methodologies to estimate costs for the categories. For example, some of the difficulty in compiling a small business customer dataset using retailers' own information stems from some retailers not recording costs separately for residential and small business customers. Instead, these retailers record information for a combined group, commonly referred to as 'mass market'. In such cases retailers were asked to apply an allocation methodology between residential and small business customers when reporting data to the ACCC. Where this was not done by the retailer, we applied an allocation methodology ourselves. A number of retailers with generation assets provided information on their wholesale costs using a 'transfer price' methodology that reflected market prices for wholesale energy, rather than their actual generation costs. We have used these provided costs.

The results presented in charts exclude regional Queensland. Following improvements to our data collection, the Australian Capital Territory is included in New South Wales and National Electricity Market-wide data from 2019–20 onwards.

Quality assurance

The ACCC examined the returned data for inconsistencies and potential errors and checked it against other data sources such as public data from the AER. For example, we:

- checked that the number of residential customers, small business customers, large business customers and solar customers by retailer and region were consistent with our

[125] Australian Energy Regulator data; and Essential Services Commission, Victorian Energy Market Report 2020-21 – Appendix: Retailer performance, Victorian Government, 30 November 2021.

expectations based on customer numbers reported by the Australian Energy Regulator and the Essential Services Commission of Victoria[126]

- checked that retailers' data contained no unexpected data omissions
- queried individual retailers on any large or unexpected movements in their data relative to previous years.

Our checks identified several significant data quality issues for several retailers. In each case we contacted the retailers for clarification and in several instances updated data was provided. We repeated checks on any new data provided.

Cost stack analytical methodology

For our cost stack analysis, we used retailer margins (or more specifically, earnings before interest, tax, depreciation, and amortisation), cost and usage data to obtain measures of the total cost stacks for retailers.

For this report:

- A 'dollar per customer' measure was calculated by dividing revenue and costs by numbers of customers. This can be considered a proxy for the annual amount that an average customer would pay for electricity. However, it is only a general representation due to significant usage differences between geographic regions, time periods and customer types.
- A 'cents per kilowatt hour' measure was calculated by dividing revenue and costs by usage. This can be considered a proxy for the effective price faced by an electricity user for a unit of electricity. It does not consider usage differences between customers, which can vary dramatically. Retail tariffs are often structured with a fixed fee component, which in this case is averaged over the usage.
- Any cost stack data prior to 2017–18 that are used in this report was derived from data collected as part of our previous Retail Electricity Pricing Inquiry. This collection contains yearly data from 2013–14 onwards and 2 selected earlier data years, 2007–08 and 2010–11, to provide context.

In our cost stack analysis, our measure of the representative customer generally refers to the mean rather than the median. The distribution of residential electricity usage broadly follows a normal distribution, though it is positively skewed – that is, the average (mean) customer uses more than the median customer. This is a result of a small number of customers with much higher than average electricity usage. However, we do present median calculations in our retail offer analysis, in order to reduce the impact of potential outlier observations in this data.

For small business customers, there is a much larger range of electricity usage and the distribution is not normal, reflecting the disparity in electricity requirements for small business activities. Care should be taken when interpreting small business data on a per-customer basis, because of the large range of underlying electricity consumption. Accordingly, we focus on c/kWh measure for the small business cohort, which can more readily be scaled for different usage levels.

Unless otherwise stated, we have presented real (inflation adjusted) numbers in this report, in 2021–22 dollars. National Electricity Market-wide charts are volume-weighted by usage or customer numbers as relevant. Goods and services tax is not included in the charts presented.

---

[126] Australian Energy Regulator data; and Essential Services Commission, Victorian Energy Market Report 2020–21 – Appendix: Retailer performance, Victorian Government, 30 November 2021.

While the costs of premium feed-in tariffs are typically recovered through network charges, we have adjusted the data to attribute these costs to the 'environmental' cost category, rather than network costs. The premium feed-in tariff results presented for New South Wales include contributions to the NSW Climate Change Fund, which are recovered through network charges like the costs of premium feed-in tariffs are in other regions. These results also include premium feed-in tariffs in the ACT from 2019–20.

Percentage values in charts may not sum to 100 due to rounding. Other values may similarly not sum due to rounding.

Retail offer data collection

In this report, we included new analysis that estimates changes in retail electricity prices from June 2020 to October 2022. These estimates are based on electricity offers from retailers that were publicly available on government comparator websites:

- Energy Made Easy, which is run by the Australian Energy Regulator and covers New South Wales, Queensland, South Australia, Tasmania, and the Australian Capital Territory.
- Victorian Energy Compare, which is run by Victoria's Essential Services Commission.

All retailers must upload the particular details of their electricity offers (both standing offers and market offers) for residential and small business customers to these sites. We collected offer data at the beginning of every month[127], obtaining key information on each plan such as customer type, region, tariff type and solar status, as well as the price of the offer and charging basis.

Retail offer analytical methodology

We adjusted the retail offer data for inflation, using the Consumer Price Index sourced from the Australian Bureau of Statistics.

To calculate estimated median annual bills, we combined market offer information with benchmark consumption figures. For residential households, these were specified for each distribution zone; for small businesses we used a consistent 20,000 kWh estimate across all regions. The median is calculated per region using all relevant offers.

This produces an illustrative estimate of annual bills, but there are some limitations. For example, this approach only reflects prices for customers entering new contracts, not existing customers. We also filtered the calculation to single rate tariffs. While this is the most common type of tariff, there are other tariffs in use, such as time of use tariffs.

To compare market offers against the standing offer we plot the estimated annual bill as a percentage of the standing offer in place at that time and location (either the default market offer or the Victorian default offer). In the charts presented in the body of the report, we determine the minimum offer from each retailer; then calculate the median across all the retailers' minimum offers. We repeat this process with maximum offers.

We plot the median-of-minimums and median-of-maximums to illustrate the central range of offers. In particular, this measure is robust to the presence of outliers that would otherwise be reported as the absolute minimum (or absolute maximum) offer, but which are not indicative of the likely outcomes for customers seeking a new electricity contract.

[127] The exception was the months of November and December 2020, when only a subset of the required data was collected. For charts in the body of the report, we have modelled replacement figures based on the available data.

Appendix C: Further retail analysis

This appendix supports the analysis included in chapters 4 and 5 of the main report.

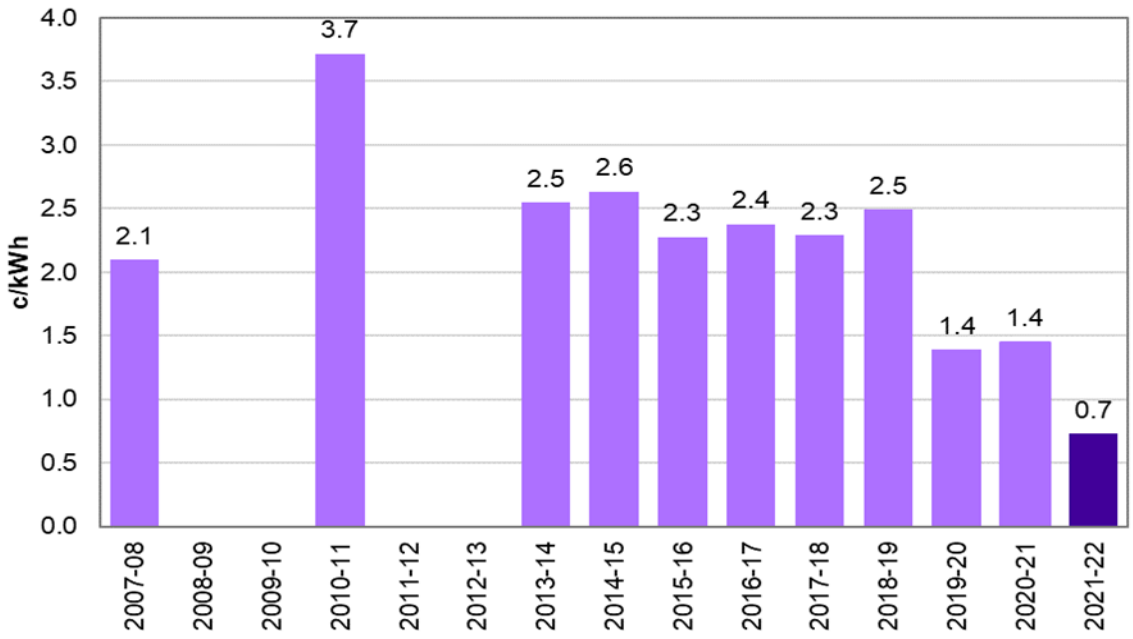
Cost stack analysis

This section of this Appendix supports the results from the ACCC's annual collection of retailers' cost information in Section 4.2 of the main report.

Retail margins

Retail margins for small business customers have also dropped significantly from 2021–22 (Figure C1), as they did for residential consumers (Figure 4.5). We have used c/kWh for small business customers because we consider it to be a more useful representation than $/customer, given the significant variance in usage between small business customers.

Figure C1: Average retail margins per electricity usage for small business customers across the National Electricity Market, 2007–08 to 2021–22, real $2021–22, excluding GST

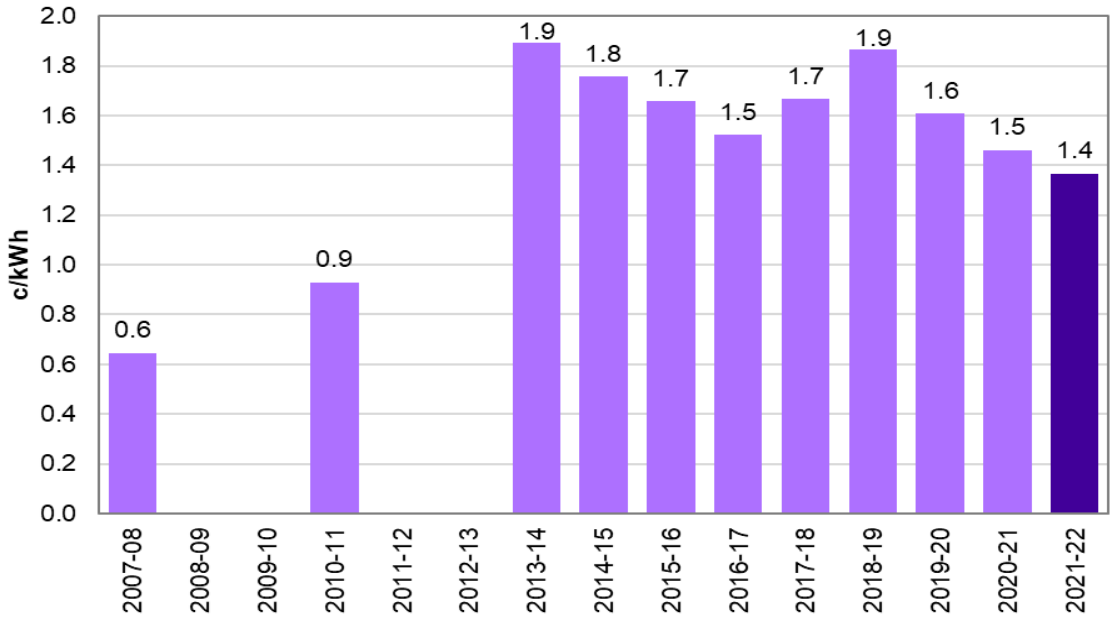


Source: ACCC analysis based on retailers' data.
Note: Margins are earnings before interest, tax, depreciation, and amortisation (or EBITDA)

Retail costs

As for residential customers (Figure 4.6), retail costs for small business customers continued the downward trend demonstrated since 2018–19 (Figure C2). As above, we have used c/kWh for small business customers rather than $/customer.

Figure C2: Average retail and other costs over time per electricity usage for small business customers across the National Electricity Market, 2007–08 to 2021–22, real $2021–22, excluding GST

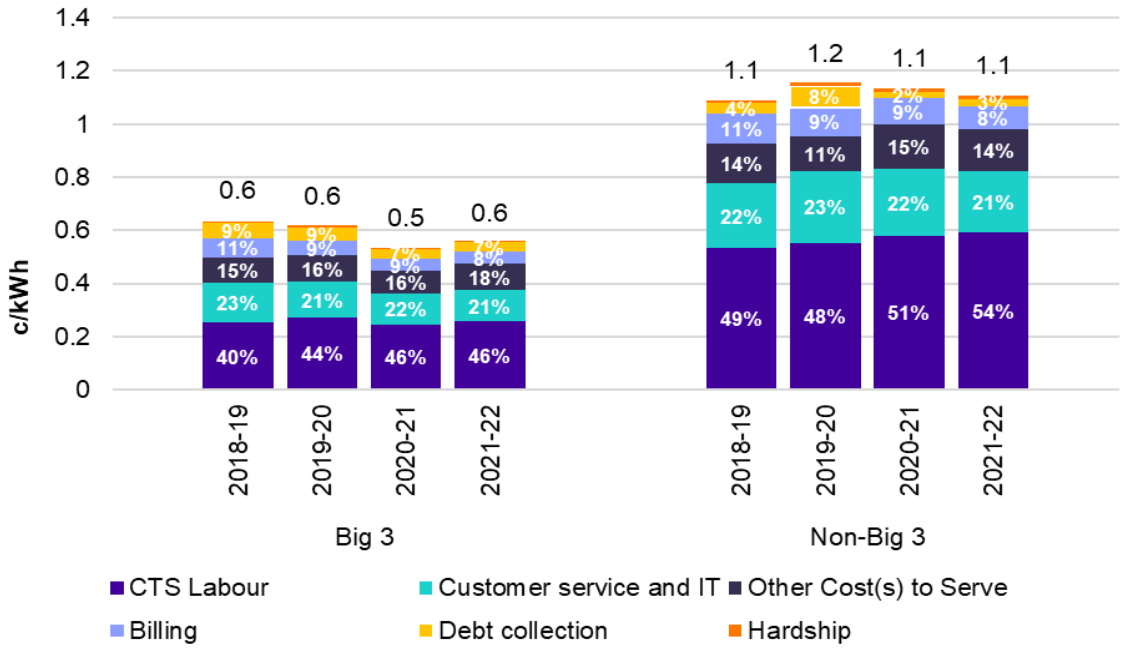


Source: ACCC analysis based on retailers' data.

Cost to serve

Big 3 retailers continue to possess a significant advantage in the cost to serve small business customers (Figure C3). Costs to serve for residential customers is in Figure 4.7.

Figure C3: Average Cost to Serve per electricity usage for small business customers across the National Electricity Market by retailer tier, 2018–19 to 2021–22, real $2021–22, excluding GST

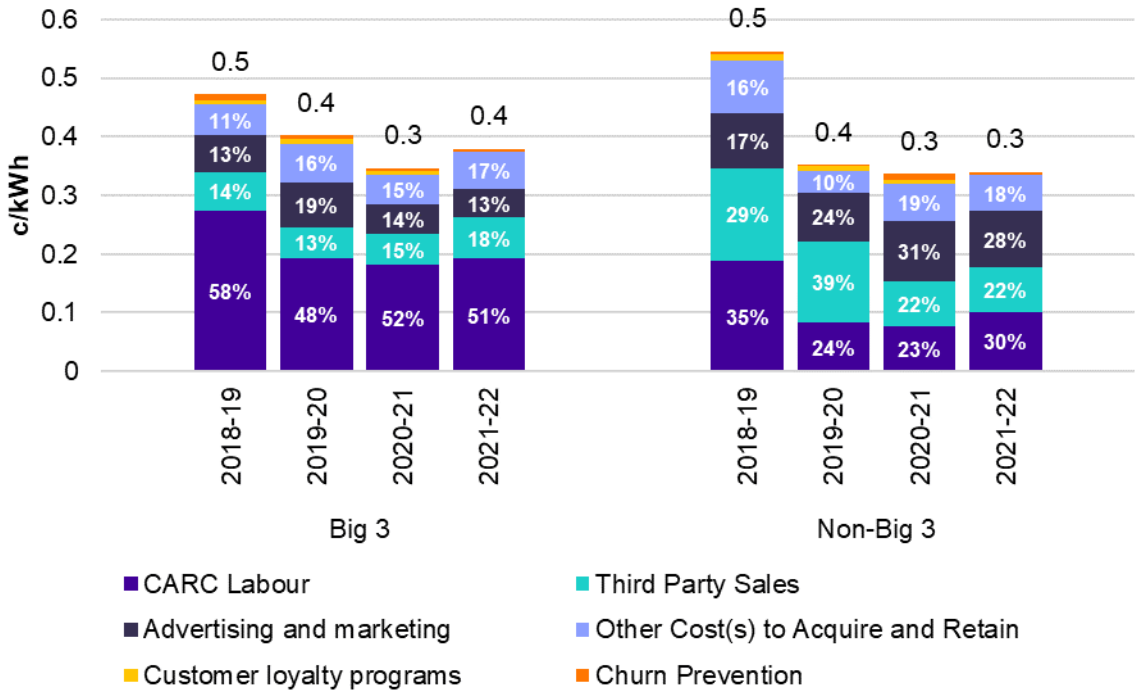


Source: ACCC analysis based on retailers' data.
Note: CTS = Cost to Serve.

Costs to acquire and retain

Costs to acquire and retain small business customers (Figure C4) has stayed relatively consistent with last year. An interesting difference from the residential customer results (Figure 4.8) is that costs to acquire and retail small business customers are nearly even for both big 3 and non-big 3 retailers.

Figure C4: Average Cost to Acquire and Retain per electricity usage for small business customer across the National Electricity Market by retailer tier, 2018–19 to 2021–22, real $2021–22, excluding GST

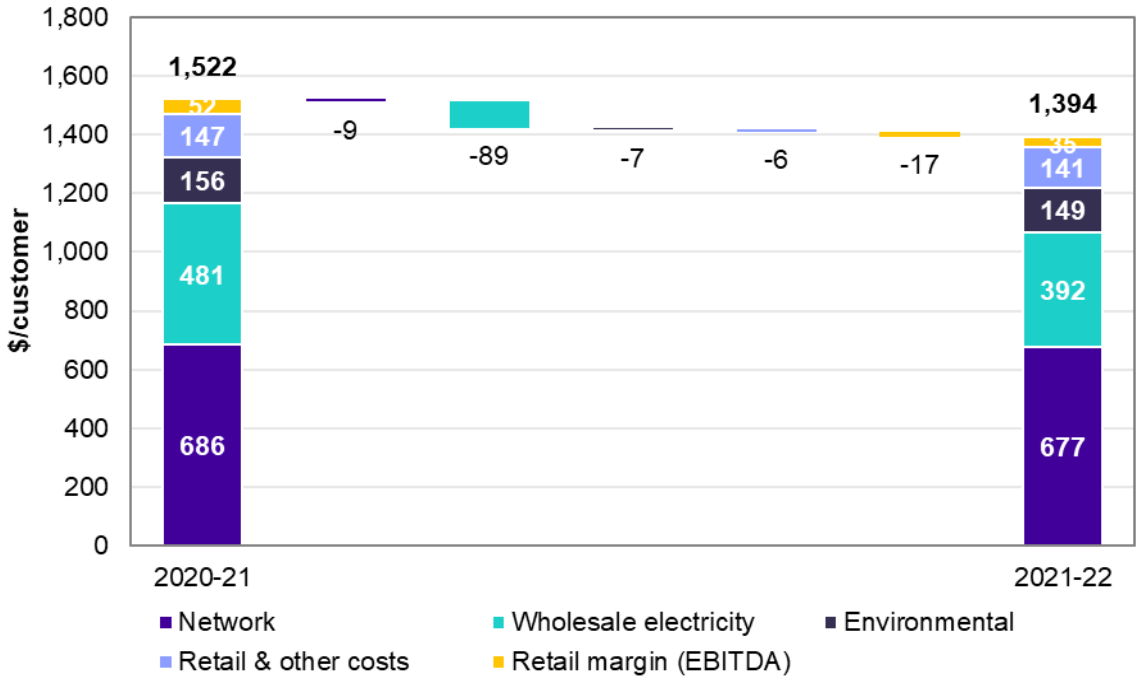


Source: ACCC analysis based on retailers' data.
Note: CARC = Cost to Acquire and Retain.

Change in total average costs by cost component

The average total costs per residential customer declined 8% from 2020–21 (Figure C5). Most cost components declined very slightly, with the majority of the reduction being driven by falling wholesale costs. These wholesale cost decreases are likely a reflection of our timeframes, which mean elevated spot prices observed over the second half of 2022 are largely not captured in our data.

Figure C5: Change in cost components for the average residential customer across the National Electricity Market from 2020–21 to 2021–22 ($/customer), real $2021–22, excluding GST

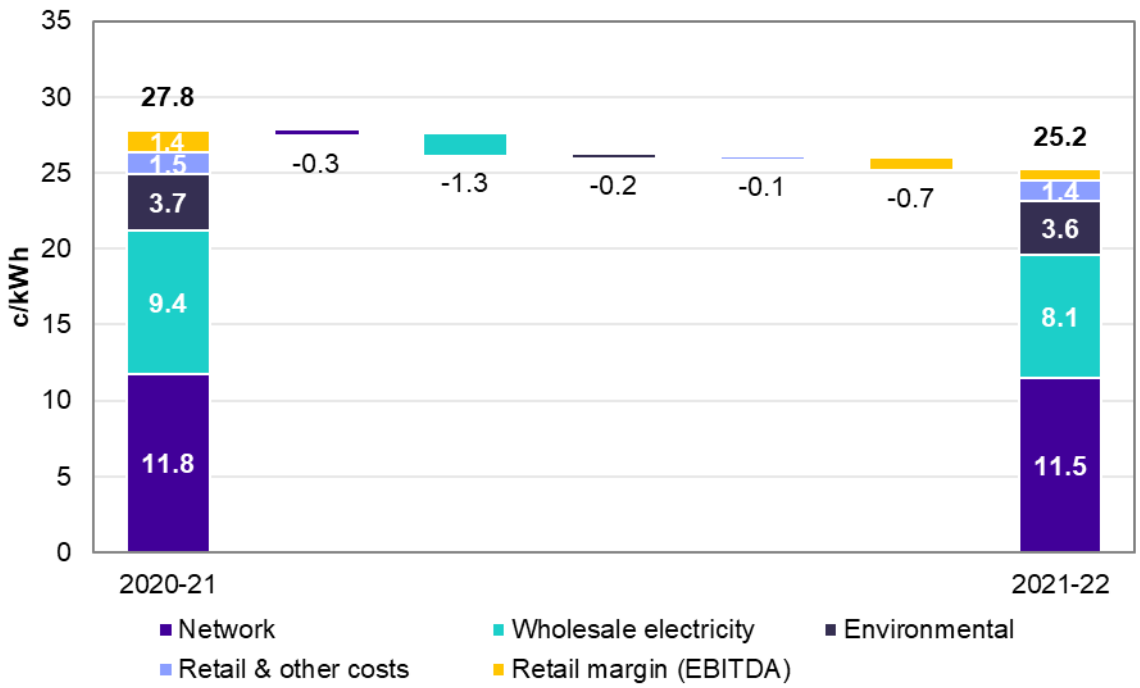


Source: ACCC analysis based on retailers' data.
Note: EBITDA = earnings before interest, tax, depreciation, and amortisation.

Overall, the average total costs for small business customers dropped 9% from 2020–21 (see Figure C6). All cost components reduced over the year, though the total decrease was mainly driven by falls in network costs and wholesale costs. As for residential consumers, these wholesale cost decreases likely reflect our timeframes. The total average cost for small business customers is made up of:

- 45% network costs
- 32% wholesale costs
- 14% environmental costs
- 5% retail and other costs
- 3% retail margins.

Figure C6: Change in cost components of the average small business customer effective price across the NEM from 2020–21 to 2021–22 (c/kWh), real $2021–22, excluding GST



Source: ACCC analysis based on retailers' data.
Note: EBITDA = earnings before interest, tax, depreciation, and amortisation.

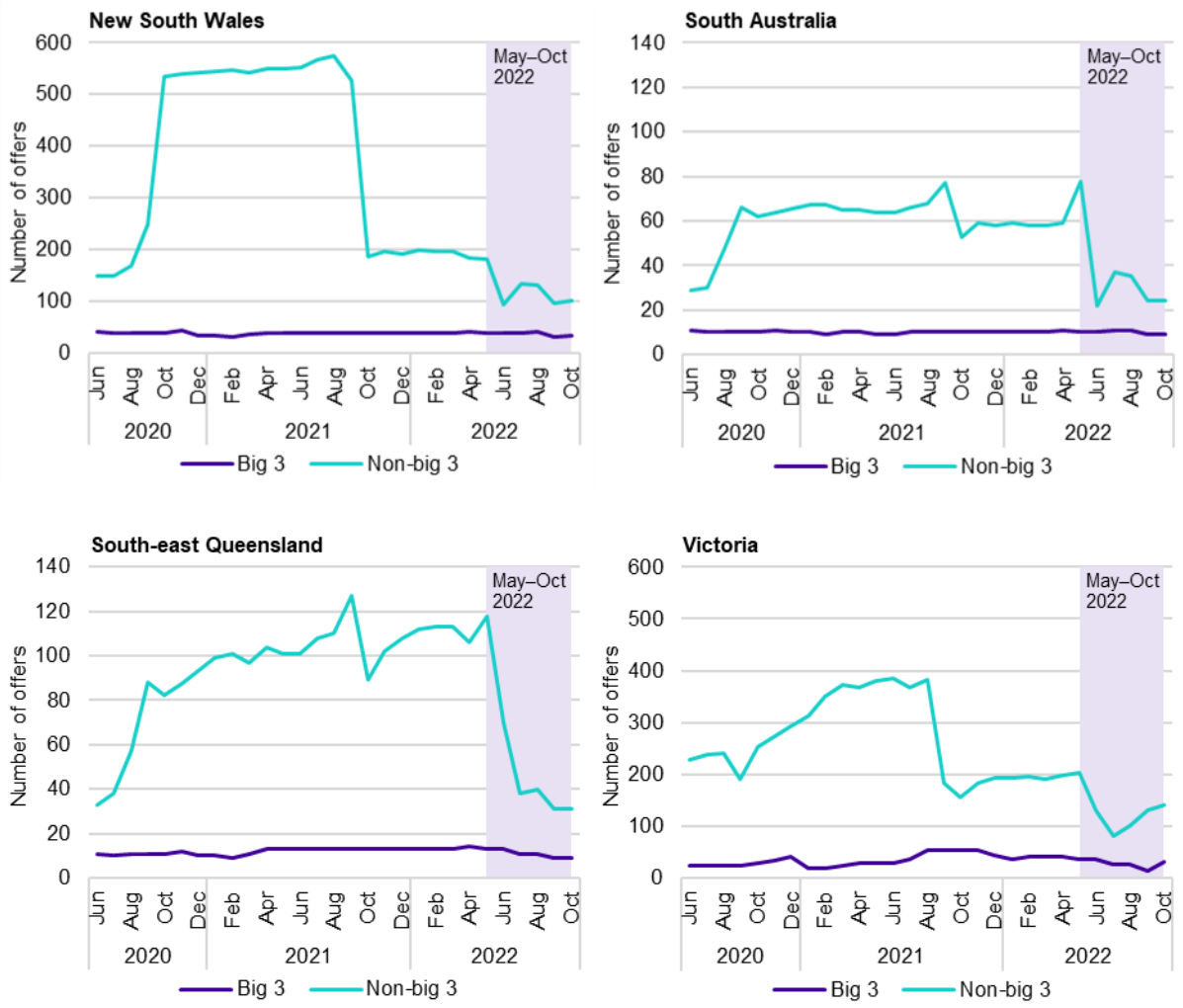
Market offer analysis

In addition to the analysis of residential market offers included in sections 5.5 and 5.6, the ACCC has undertaken similar analysis of small business market offers.

Number of market offers

Figure C7 shows the same overarching trend is evident in the number of market offers for small business customers, as is for residential customers in Figure 5.1 of the main report. The number of available market offers from non-big 3 retailers dropped drastically in May 2022 and despite slight rebounds in some states is still significantly below previous levels.

Figure C7: Number of single rate market offers, small business, June 2020 to October 2022



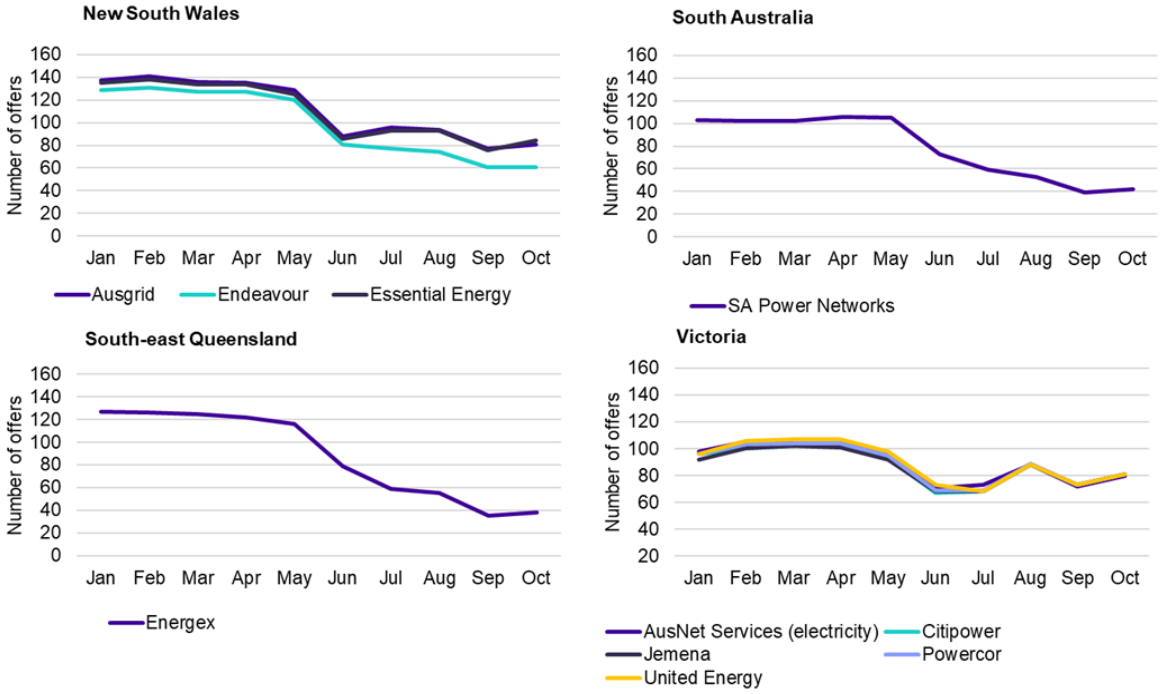
Source: ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.
Note: Assumed annual usage is 20,000 kWh. Data in November and December 2020 are not available and have been replaced with modelled estimates.

Number of market offers below the standing offer

The drop in the number of market offers below the Default Market Offer is even more stark. It's clear from Figure C8 that in New South Wales, South Australia, and South East Queensland that the number of retailers available for consumers to choose from is a fraction of what it was before May 2022.

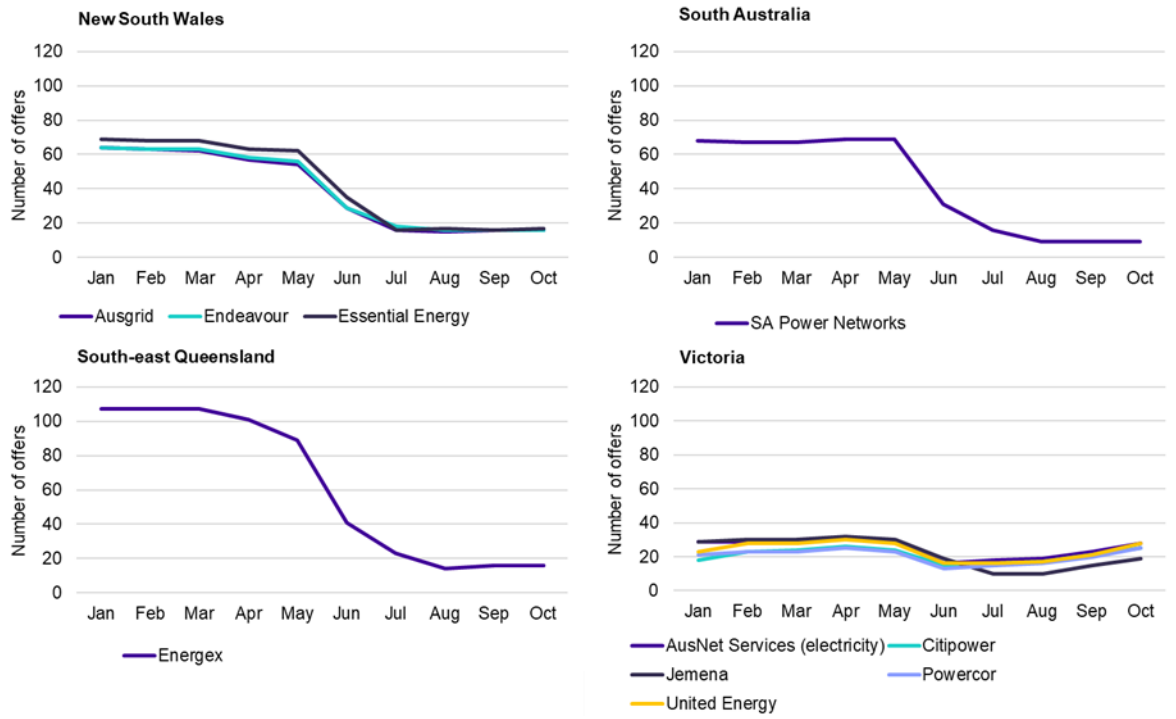
The trend in the number of residential market offers below the Default Market Offer (Figure C8) is very similar to small business offers (Figure C9). Victoria has expressed a significant rebound in recent months for both customer types, though the numbers in each distribution zone are still generally lower than pre-May 2022.

Figure C8: Number of single rate market offers below Default Market Offer and Victorian Default Offer, residential, January to October 2022



Source: ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.

Figure C9: Number of single rate market offers below the Default Market Offer and Victorian Default Offer, small business, January to October 2022

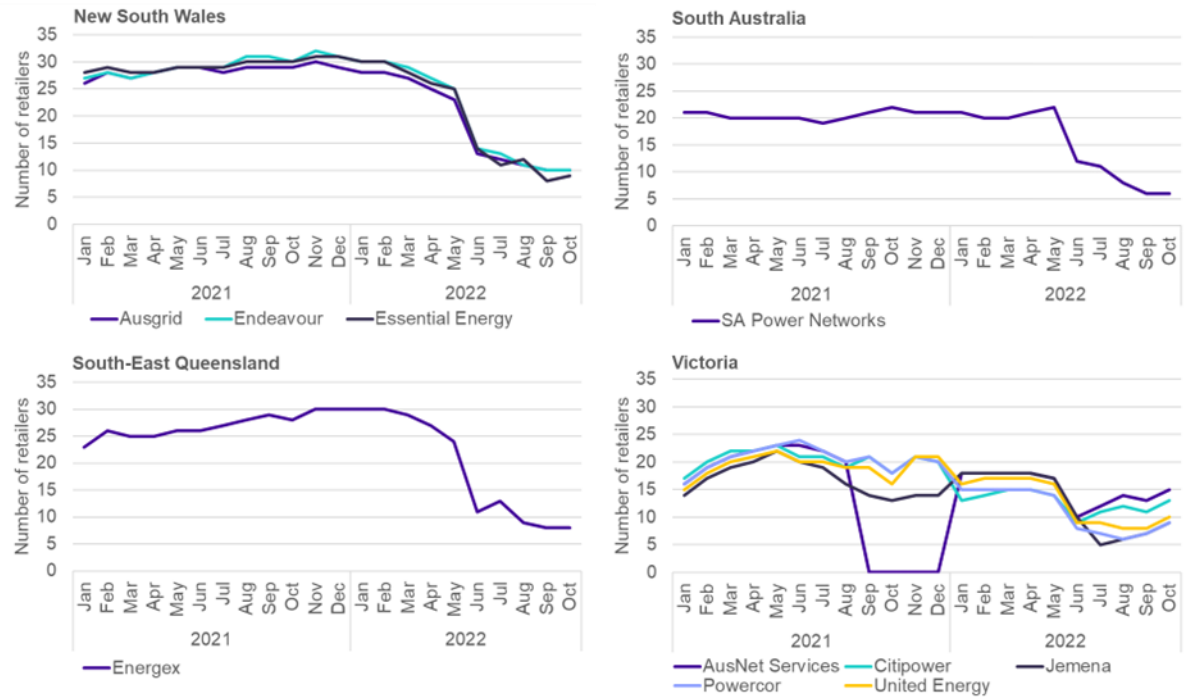


Source: ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.

Number of retailers with offers below the standing offer

Figure C10 reveals the number of retailers with at least one market offer below the standing offer also dropped substantially for small business consumers, similarly to residential consumers (Figure 5.2).

Figure C10: Number of retailers with at least one small business, single rate market offer below the Default Market Offer and Victorian Default Offer (as at 10 October 2022)



Source: ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.

Minimum and maximum market offers compared with Default Market Offer/Victorian Default Offer

Like for residential customers (Figure 5.3), we can see small business market offers from a representative retailer have converged towards the Default Market Offer for both big 3 and non-big 3 retailers in all regions (see Figure C11). The change is much more stark for non-big 3 in New South Wales, South Australia and South East Queensland. Meanwhile in Victoria, market offers already seemed to be close to the Victorian Default Offer before May 2022.

Note that we plotted the median of minimum offers rather than the absolute minimum offer in each region. This avoids potentially misleading outcomes, as the absolute minimum offer may be an outlier, especially because the minimum offer from an individual retailer may not be available to all consumers. The charts assume the usage profile consistent with the standing offer in each distribution zone.

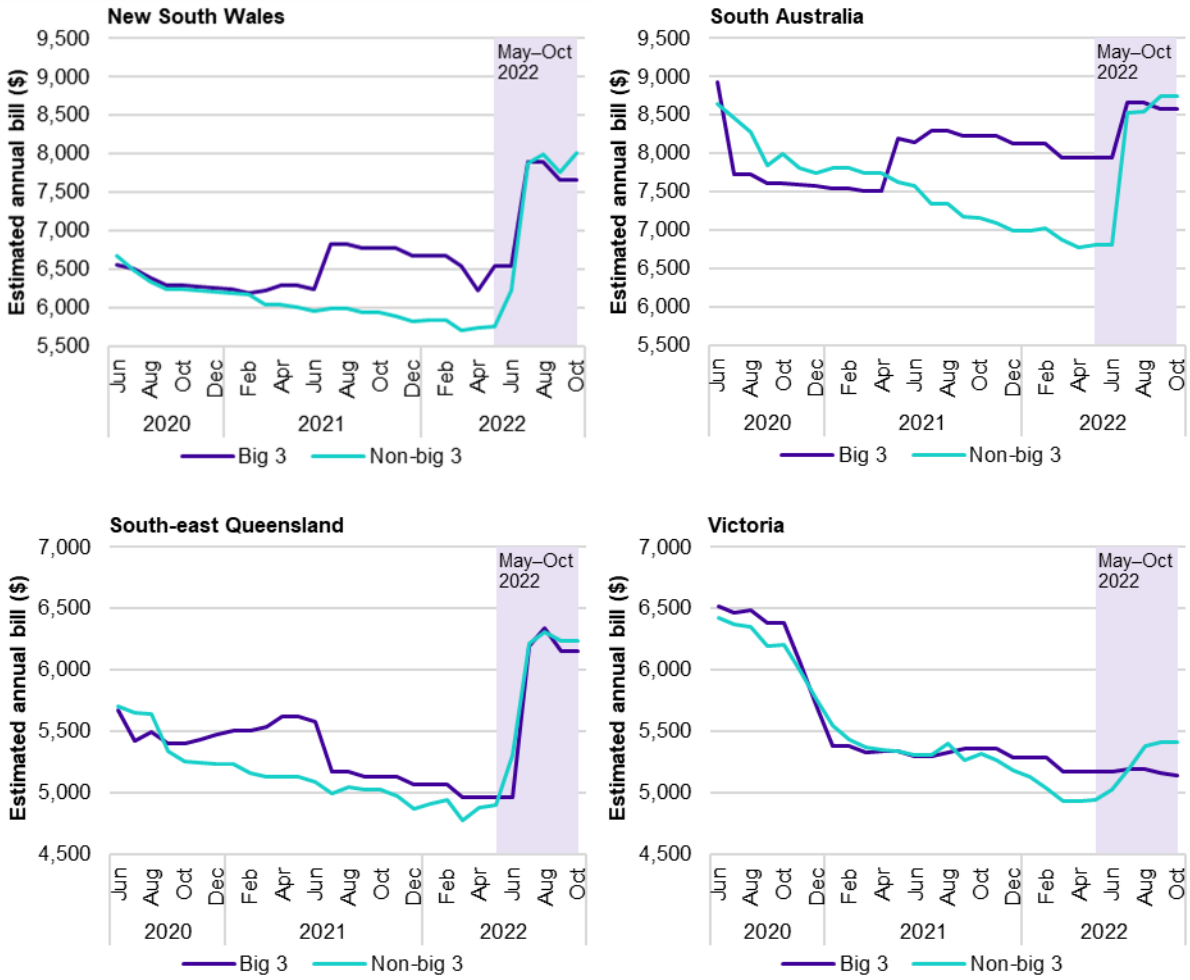
Figure C11: Median of minimum and median of maximum market offers compared with Default Market Offer/Victorian Default Offer, small business single rate, June 2020 to October 2022

Source: ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.
Note: The graphs above show the medians of minimum and maximum market offers for each retailer. They do not necessarily indicate the cheapest or most expensive offer available in the market. Assumed annual usage is 20,000kWh. Data for November and December 2020 are not available and have been replaced with modelled estimates.

Prices of market offers

For small business customers in the Default Market Offer regions, there has been a similar story to residential consumers (Figure 5.4) with a sharp rise in the prices of market offers from both big 3 and non-big 3 retailers (Figure C12). Figure C12 also shows the prices of big 3 and non-big 3 market offers are generally converging.

Figure C12: Estimated median annual bill, small business single rate market offers ($, real), June 2020 to October 2022



Source: ACCC analysis of Energy Made Easy and Victorian Energy Compare market offer data, 10 October 2022.
Note: Assumed annual usage is 20,000 kWh. Data in November and December 2020 are not available and have been replaced with modelled estimates.

Default Market Offer and Victorian Default Offer

Default Market Offer objectives and methodology

The ACCC recommended the introduction of the Default Market Offer as part of its Retail Electricity Pricing Inquiry final report in 2018.[128] The objectives of the Default Market Offer, which are set out in each annual price determination, are to:

- reduce unjustifiably high standing offer prices and continue to protect consumers from unreasonable prices
- allow retailers to recover their efficient costs of providing services, including a reasonable retail margin and costs associated with customer acquisition and retention
- maintain incentives for competition, innovation and investment by retailers, and incentives for consumers to engage in the market.[129]

The ACCC also advocated for the benefits of pricing transparency in its initial recommendation to establish the Default Market Offer.[130]

The Default Market Offer price is calculated by summing the components of a typical retailers' 'cost stack'. The cost stack includes wholesale costs, network costs, environmental costs, and retail costs. A retail allowance is added on top, as a percentage of total cost stack.

The wholesale component of the Default Market Offer is devised by consultants ACIL Allen on behalf of the AER by simulating the costs a retailer incurs when buying energy in the National Electricity Market for a given year. The costs combine hedging and spot market costs and other fees related to participate in the National Electricity Market (other energy costs). The wholesale component assumes retailers are risk-averse and follow a hedging strategy to reduce exposure to the possibility of very high spot market prices. The strategy assumes retailers build up their hedge book over the course of 3 years.

A Frontier Economics' review found that it may overestimate retailers' experienced wholesale costs relative to what the most efficient retailers could expect to achieve.[131] Additionally, sufficient retail margins are included in the Default Market Offer level so as to provide 'headroom' between the Default Market Offer and efficiently priced market offers in order to align with the Default Market Offer objectives (see below).

The Default Market Offer price can only be set annually.[132]

Headroom under the Default Market Offer

The Default Market Offer retail allowance includes retail margin and is often referred to as 'headroom'. It is set as a proportion of the overall bill in each region, rather than a fixed dollar figure.

The inclusion of headroom within the allowance is a crucial component of the Default Market Offer methodology that allows it to achieve its objectives of encouraging competition.

In the final determination of the 2022–2023 Default Market Offer, the AER indicated it would transition the retail allowance in all regions to 10% for residential consumers and 15% for

---

128 ACCC, *Retail Electricity Pricing Inquiry – Final Report*, Commonwealth of Australia, June 2018, p xxii.

129 AER, *Default Market offer prices 2022–23: Final determination*, Commonwealth of Australia, May 2022, p. 1.

130 ACCC, *Retail Electricity Pricing Inquiry – Final Report*, Commonwealth of Australia, June 2018, p 249.

131 AER, *Default Market offer prices 2022–23: Final determination*, Commonwealth of Australia, May 2022, p 3.

132 Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019, section 17.

small business consumers over 3 successive Default Market Offer determinations. This means the retail allowance for residential consumers is required to increase in South Australia and South East Queensland but decrease in New South Wales.[133]

The inclusion of headroom supports the Default Market Offer in meeting its objectives by ensuring there is sufficient gap between 'efficient costs' and the Default Market Offer price so retailers can recover their costs and a reasonable margin, and that consumers still face an incentive to engage in the market and look for better deals (typically market offers).

Victorian Default Offer objectives and methodology

The Victorian Default Offer's objective is to provide a simple, trusted and reasonably priced electricity option that safeguards consumers unable or unwilling to engage in the electricity market. In contrast to the Default Market Offer, the Victorian Default Offer, set by the Essential Services Commission is priced to reflect 'efficient costs' and so has smaller margins (without an additional allowance for headroom). The 2022–23 Victorian Default Offer includes a retail margin 5.7%. It is not expected to be the best offer available to most customers.

Like the Default Market Offer, the Victorian Default Offer is calculated as the sum of a cost stack made up of wholesale, network, environmental, retail and other costs, plus network losses and retail margin.[134] The wholesale cost component of the Victorian Default Offer is calculated by an external consultant (Frontier Economics). It uses historical market data on load and spot prices, trades for next year's financial contracts in the current year, and a portfolio optimisation model to estimate wholesale costs. This wholesale cost methodology assumes retailers hedge over the 12-month period leading up to the relevant quarter, and does not take into account power purchase agreements, vertical integration and contracts traded outside of the Australian Securities Exchange (ASX).[135]

In Victoria, the Essential Services Commission generally resets the Victorian Default Offer annually but has the ability to decide to vary its price determination within the regulatory period. The Essential Services Commission can vary the Victorian Default Offer following an 'uncertain or unforeseen event' or to correct an error.[136]

---

133 AER, *Default Market offer prices 2022–23: Final determination*, Commonwealth of Australia, May 2022, p 9.

134 Essential Services Commission, *Victorian Default Offer 2022–23 Final decision*, Victorian Government, 24 May 2022, p 9.

135 Essential Services Commission, *Victorian Default Offer 2022–23 Final decision*, Victorian Government, 24 May 2022, pp 10–13.

136 Order in Council under section 13 of the *Electricity Industry Act 2000* (Victoria), Victorian Government Gazette, No. S 208 Thursday 30 May 2019. Located at Appendix B of the *Victorian Default Offer 2022–23 Final decision*.

AUSTRALIAN COMPETITION
& CONSUMER COMMISSION