AUSTRALIAN COMPETITION & CONSUMER COMMISSION

Inquiry into the National Electricity Market

November 2021 Report

22 November 2021

accc.gov.au

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

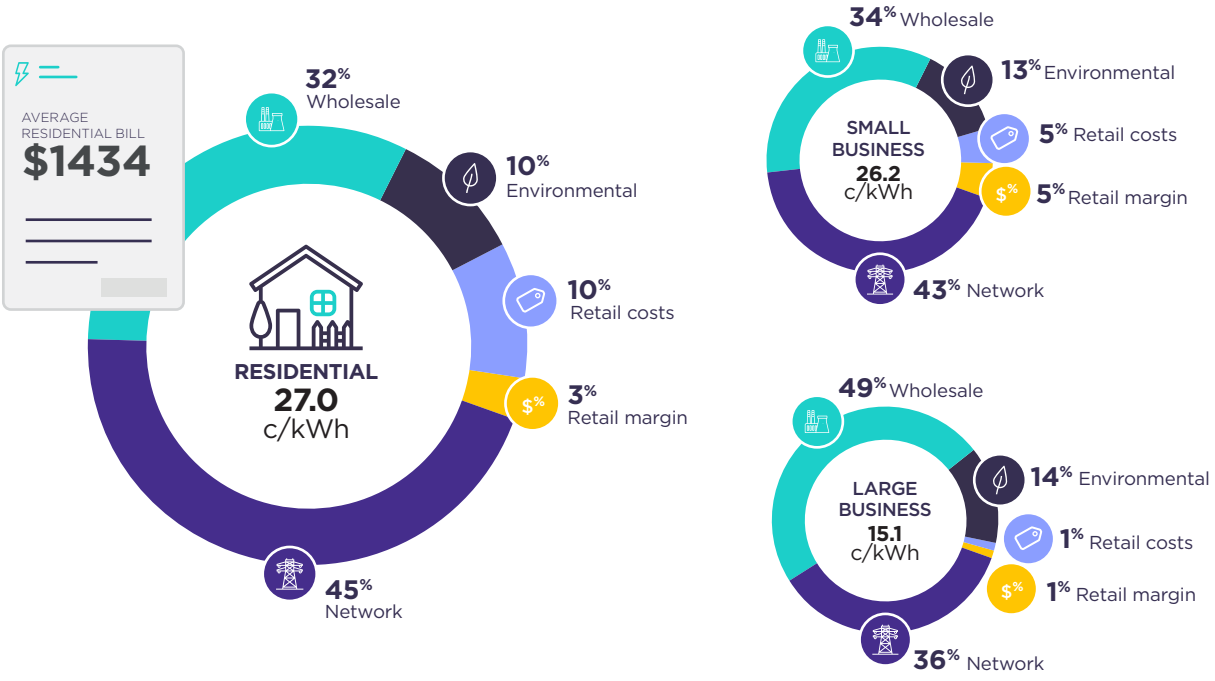
Contents

Abbreviations

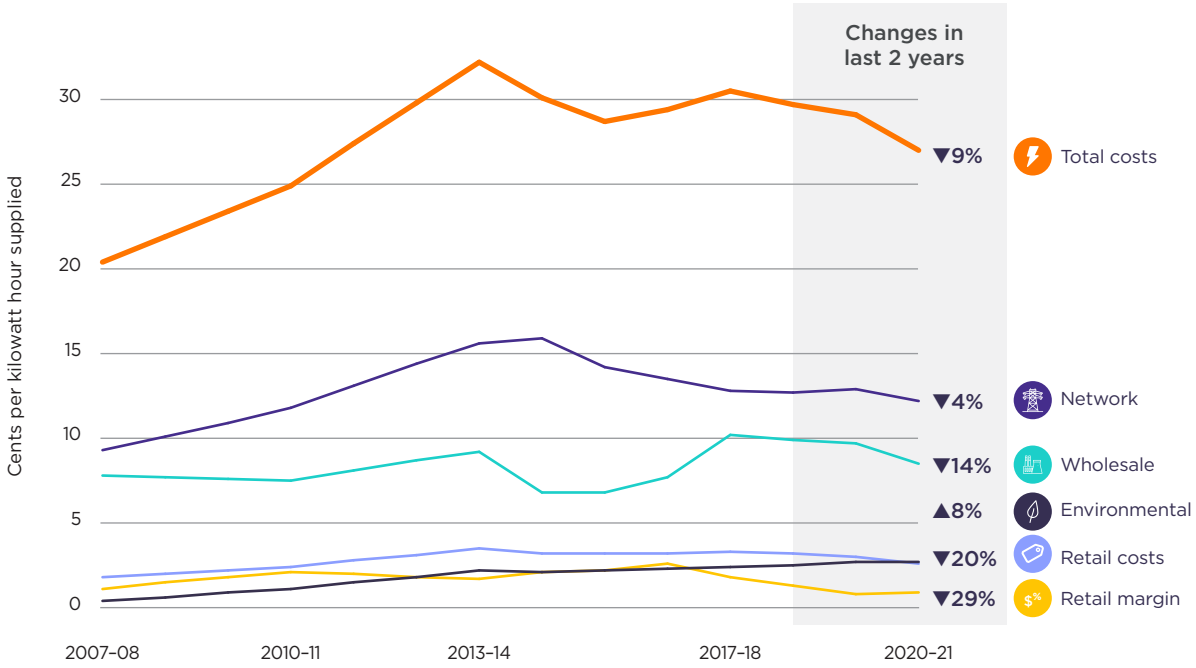
AER	Australian Energy Regulator
ACCC	Australian Competition and Consumer Commission
c/kWh	cents per kilowatt hour
CARC	costs to acquire and retain customers
CTS	costs to serve
EBITDA	earnings before interest, tax, depreciation and amortisation
FiT	feed-in tariff
GWh	gigawatt hour
kWh	kilowatt hour
Large business customers	commercial and industrial customers
LRET	Large-scale Renewable Energy Target
MW	megawatt
MWh	megawatt hour
NEM	National Electricity Market
PEMM Act	Prohibiting Energy Market Misconduct Act – Part XICA of the *Competition and Consumer Act 2010* (Cth)
Small business customers	small and medium enterprise customers
SRES	Small-scale Renewable Energy Scheme

Key figures

BREAKDOWN OF ANNUAL COSTS 2020–21



RESIDENTIAL ELECTRICITY SUPPLY COSTS OVER TIME



Key messages

Electricity costs are now the lowest they have been in 8 years. The average cost to supply electricity to a residential customer is now $1,434, down $128 or 8% across the last 2 financial years. Despite an improvement in recent years, costs to supply electricity are still 32% higher than in 2007–08, the start of our cost stack data.

Lower wholesale spot market prices have started to flow through to customers. This is the primary cause of decreases in overall costs across the last 2 financial years. There are both supply factors (such as higher solar and wind generation) and demand factors (such as economic disruption from the COVID-19 pandemic) behind the lower wholesale spot market prices.

We expect further reductions in wholesale costs in the next year, to catch up with the full extent of decreases in wholesale spot market prices. We will enforce the *Prohibiting Energy Market Misconduct Act*, which requires that retailers pass through to customers any significant and sustained cost reductions.

Retailers' operating costs decreased across the last 2 years. This may reflect increasing economies of scale for smaller retailers as they gain market share, and changes in selling practices – including some changes as a result of COVID-19 restrictions.

Retailers' margins in 2019–20 were the lowest we have observed, with 2020–21 margins the second lowest. The Default Market Offer and Victorian Default Offer were introduced in July 2019, and we consider these reforms were a significant factor in reducing retail margins.

Environmental costs increased across the last 2 financial years, driven by increasing costs of the small-scale renewable energy scheme. While still a small proportion of overall costs, there is a multi-year trend of gradual increases in this cost category.

Executive summary

The cost to supply electricity to residential and business customers in the National Electricity Market (NEM) fell in 2019–20 and 2020–21. Falls in wholesale spot market prices meant retailers' costs to purchase wholesale electricity were lower, and this was the main cause of the reduction. Electricity network costs, retailers' operating costs and retail margins also declined over this period. The only costs to have increased, albeit slightly, were those from environmental schemes.

These recent changes should be interpreted in the context of broader trends. Over the last 7 years, network costs have gradually declined. Previous over-investment in network assets led to inefficiently high electricity costs in many regions. Large fluctuations in wholesale spot market prices significantly influenced electricity costs, and prior to recent years, wholesale spot market prices were at their highest. There has been gradual growth in environmental costs, as government schemes encourage continued uptake of renewable generation to reduce carbon emissions and promote energy efficiency. And since the transition to full retail competition across the NEM, we have seen the costs incurred by retailers to serve, acquire and retain their customers peak before subsiding.

Insight into the costs of supplying electricity

The Australian Competition and Consumer Commission (ACCC) has extended its unique dataset on the costs incurred by electricity retailers to supply electricity to households and businesses across the NEM. This 'cost stack' includes wholesale, network, environmental, and retail costs, and retail margins. This analysis complements other streams of our work – including on the electricity bills paid by customers.

To inform this report, we used our compulsory information gathering powers to obtain cost stack data from electricity retailers for 2019–20 and 2020–21, adding it to our existing dataset. The dataset has broad coverage over approximately 87% of the residential customer base across Victoria, New South Wales, South Australia, south-east Queensland, Tasmania and the Australian Capital Territory.

Electricity costs lowest in 8 years

The average annual cost of electricity per residential customer in 2020–21 was $1,434, down by $128 or 8% compared to 2018–19, which is a welcome reduction since our last report on retailers' costs in November 2019. All cost components except environmental costs decreased in the last 2 years, with the largest fall being in wholesale electricity costs (down by $67).

The average cost per unit of electricity supplied to residential customers (27.0 c/kWh in 2020–21) is now at its lowest level in 8 years. This decline is driven by gradual network cost decreases, as well as more recent falls in previously high wholesale electricity costs.

Despite these reductions, electricity costs are still much higher than they were over a decade ago. In 2007–08, the average cost per unit of electricity supplied to residential customers was 20.4 c/kWh (after adjusting for inflation). Current overall costs are 32% higher than this, with 4 of the 5 cost components more expensive in 2020–21 than in 2007–08.

Cost changes for business customers largely mirror those for residential customers. Over the last 2 years, the average cost per unit of electricity supplied fell by 10% to 26.2 c/kWh for small business customers, and by 12% to 15.1 c/kWh for large business customers. Wholesale electricity costs make up half of the average cost of supplying large business customers, compared to one-third for residential and small business customers. Therefore,

the decrease in wholesale electricity costs has had a relatively larger impact for large business customers than residential and small business customers.

Decreases in wholesale electricity costs have started to flow through to customers

Lower wholesale costs are the primary cause of the overall decrease in electricity costs over the last 2 years. Average wholesale electricity costs decreased by 1.3c/kWh or 14%, with most of the drop observed in 2020–21. Broadly similar reductions were observed across all NEM regions in the last year, and across both residential and business customers.

The decrease in wholesale electricity costs reflects falls in wholesale spot market prices. This fall in wholesale spot prices was driven by higher solar and wind generation, lower fuel costs for coal and gas generators, and lower total demand due to milder weather and COVID-19 related disruptions to economic activity.

Further wholesale electricity cost reductions must continue to flow through to customers

The ACCC enforces the *Prohibiting Energy Market Misconduct Act 2020* (PEMM Act) to ensure that significant and sustained cost reductions are passed through to customers. The decrease in wholesale spot market prices is larger than the decrease in wholesale electricity costs observed so far, so we expect further reductions.

Retailers commonly enter into hedging contracts several years in advance to manage volatility in wholesale spot market prices. This creates a time lag between when spot market prices change and when retailers' wholesale costs follow that change. We anticipate that retailers' wholesale electricity costs will continue to fall as older and more expensive hedging contracts continue to expire. This should mean continued reductions in prices for customers next year.

Retail costs and margins continue to decrease

Electricity retailers' operating costs decreased in the last 2 financial years, with both the cost to serve and the cost to acquire and retain customers falling on a per-customer basis. Retailers' margins (measured as earnings before interest, tax, depreciation and amortisation) also decreased in net terms over the last 2 financial years. Retail margins in 2019–20 were the lowest we have observed, although there was a small increase in the most recent financial year.

There has been a multi-year trend of gradual reductions in retail costs and margins. This general pattern is found across most NEM regions and for both residential and business customers.

A number of factors likely contributed to the recent reductions. For retail margins, we consider the most significant factor was the introduction of the Default Market Offer and the Victorian Default Offer from 1 July 2019. For retail costs, there have been substantial changes to selling practices. For example, payments made by smaller retailers to third parties who facilitate the sale of products and services have fallen dramatically. COVID-19 restrictions on business activities such as door-to-door selling may be one explanation for this change. The number of active retail brands has increased, and there are signs of decreasing market concentration with smaller retailers growing their customer bases. This allows increasing economies of scale for these retailers and puts downward pressure on both retail costs and margins.

Environmental costs are gradually increasing

Environmental costs have increased in the last 2 financial years, continuing a multi-year trend of gradual increases. Increases in cost for the small-scale renewable energy scheme, reflecting unprecedented uptake of rooftop solar installations, was the main cause of the recent overall increases. The small-scale renewable energy scheme runs through to 2030. Environmental costs also include the large-scale renewable energy target, and state based solar feed-in tariff schemes. Some states have already ended their premium feed-in tariff schemes, but in other regions these schemes will be active until 2028.

Next steps

The ACCC's inquiry into prices, profits and margins in relation to the supply of electricity in the NEM continues until 2025. The next report is due to the Treasurer in May 2022 and will focus on examining the customer billing dataset. We intend to continue to examine retailers' costs in November 2022.

1. Introduction

The ACCC is continuing its market monitoring inquiry into prices, profits and margins in relation to the supply of electricity in the National Electricity Market (NEM) until 2025. We periodically report our findings to the Treasurer.

In this November 2021 report, we present analysis on retailers' costs in supplying electricity to customers (or 'cost stacks') over the last 2 financial years from 2019–20 to 2020–21. We previously reported on this dataset 2 years ago in November 2019, presenting findings on the 2018–19 financial year data. Our accumulated cost stack dataset covers approximately 87% of the residential customer base in the NEM.

This report focuses on the key results over the last 2 financial years and discusses our findings in the context of longer-term trends. This cost stack analysis complements other streams of our work, which include the analysis in our May 2021 report on bills issued to customers. The cost stack data also helps inform our monitoring, compliance, and enforcement of the Prohibiting Energy Market Misconduct Act (PEMM Act), which requires retailers to pass on sustained and substantial cost reductions to consumers.[1]

As part of our inquiry report in November 2019, we found that electricity costs were much higher in 2018–19 than a decade prior, with wholesale electricity costs continuing to contribute a large share of the overall costs for a customer. In June 2020, the PEMM Act came into effect to ensure that retailers pass on significant reductions in underlying costs to customers if the reductions are sustained. This report highlights what has happened with wholesale costs since the November 2019 report and reinforces the ACCC's expectation that cost reductions must be passed through to customers. Retailers and other participants across the supply chain need to continue to take action to reduce pressures on energy consumers, especially during the continuing challenges of the COVID-19 pandemic.

Box 1.1: What are the cost stack components?

A cost stack represents the different cost and margin components that retailers incur when supplying electricity to their customers. In other words, it shows the underlying costs that make up customers' electricity bills in aggregate. These are then averaged to represent an annual cost per customer and cost per kilowatt hour.

The underlying costs comprise the following:

- network costs charged by network operators for the transmission and distribution of electricity (for the use of the 'poles and wires' to transport electricity) and metering
- wholesale costs of purchasing electricity from the wholesale spot market (or costs of generation for vertically integrated retailers owning generation assets), and of managing price exposure
- costs of complying with environmental (green) schemes, both state and national
- the costs of running a retail business such as billing, customer service, or marketing
- a retail margin reflecting the return to the retailer's investors.

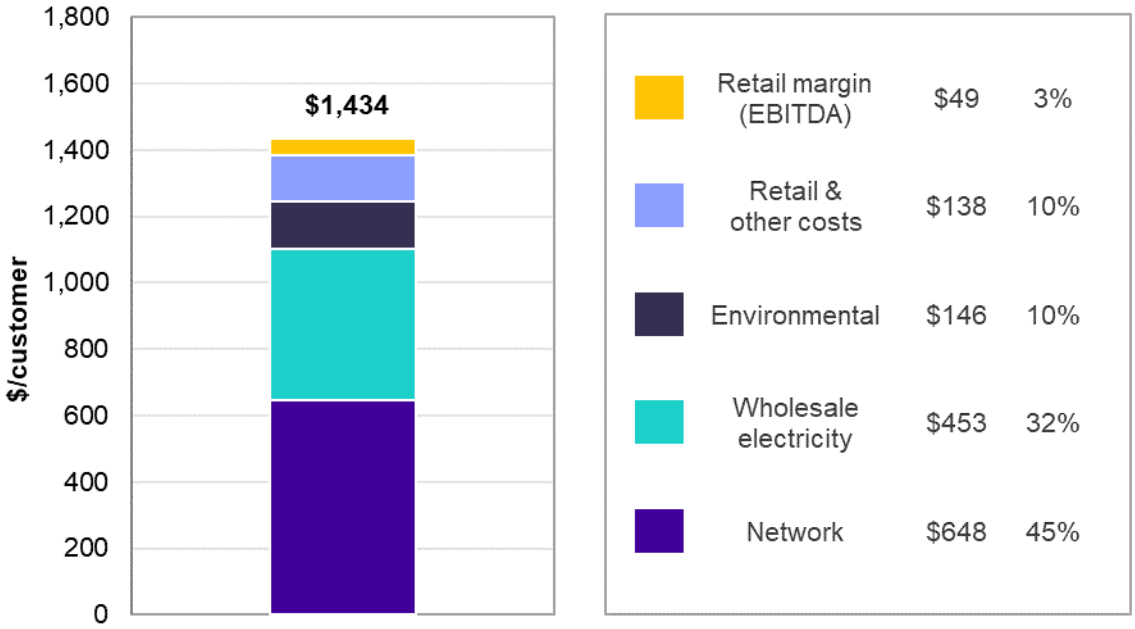
This last component is a cost in an economic sense – the return is the cost of attracting capital (investment) into the business. To measure the retail margin, we use earnings before interest, tax, depreciation and amortisation (EBITDA) in the analysis in this report. This EBITDA margin reflects a level of return commensurate with the risks faced by retailers due to their operating and regulatory environment. A retailer's EBITDA does not include margins for other parts of the supply chain such as wholesale generation.

[1] The Prohibiting Energy Market Misconduct (PEMM) Act introduced Part XICA of the *Competition and Consumer Act 2010* (Cth), through the *Treasury Laws Amendment (Prohibiting Energy Market Misconduct) Act 2019* (Cth).

As a starting point, figure 1.1 shows the annual total cost to supply an average residential customer broken down into 5 different cost components – the cost stack. The legend on the right sets out the corresponding dollar per customer amount ($) and percentage (%) of each of the cost components.

Figure 1.1: Annual cost to supply an average residential customer is $1,434

Cost components for the average residential customer across the NEM in 2020–21, real $2020–21, excluding GST



Source: ACCC analysis based on retailers' data.

Figure 1.1 shows the cost stack for the most recent financial year, 2020–21. The total cost to provide electricity to an average residential customer is $1,434. Network (45% of the total) and wholesale (32%) electricity costs make a relatively large contribution to the overall cost. In comparison, environmental, retail costs and retail margins make up smaller shares – each 10% or less of the total.

The body of our report presents the 4 major themes that emerged from our most recent data collection. Our data appendix includes supporting material, including additional breakdowns of cost components for residential customers by NEM region – Victoria, New South Wales, South Australia, south-east Queensland, and Tasmania. It also includes a number of charts included for comparability with earlier cost stack reports. We also publish for the first time regional cost stacks for small business customers. This follows from an improvement in our allocation methodology and in retailers' data quality.

While this report focuses on retailers' cost of supply, we refer to previous analysis on customer bills and the actual prices paid by customers from our May 2021 report. Customer billing data updated for 2021 will be the focus of our next report, due to the Treasurer in May 2022.

Box 1.2: Key points to keep in mind when reading this report

- A ‘dollar per customer’ measure was calculated by dividing EBITDA 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 variation in usage volumes between geographic regions, time periods and customer types.
- A ‘cents per kilowatt hour’ measure was calculated by dividing EBITDA 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 take into account 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 used in this report was derived from data collected as part of the ACCC’s 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.
- Following improvements to our data collection, the Australian Capital Territory is now included in New South Wales and NEM-wide data from 2019–20 onwards.

Further information regarding our data collection and methodologies can be found in Appendix B.

2. Overall electricity costs have fallen over the last 2 years

This section describes recent changes in the overall cost of supplying electricity. The average annual cost per residential customer in 2020–21 is $1,434, down by 8% in the last 2 financial years. Almost all cost components have decreased. The cost per unit of electricity supplied is now at its lowest level in 8 years. The recent pattern of decreasing overall costs is widespread. It is found for both residential and business customers, and for all NEM regions.

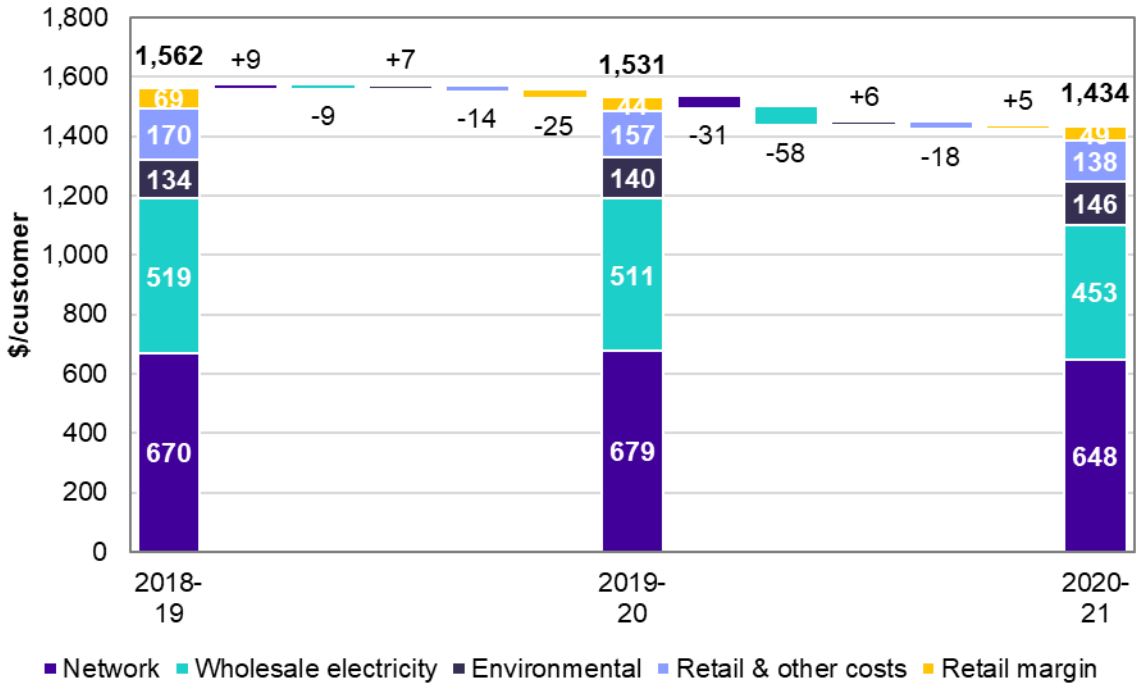
However, despite the recent decreases, electricity costs are still high when compared against earlier years in our dataset. The cost per unit of electricity supplied is 32% higher in 2020–21 than in 2007–08.

2.1. Lower annual electricity costs for residential customers

Figure 2.1 shows the movement in overall electricity costs, and the components within the cost stack for residential customers across the last 2 financial years. In this double waterfall chart, 3 columns (from left to right) show the cost stacks for 2018–19, 2019–20 and 2020–21. The bars between each column show how much each cost component contributed to the change that year.

Figure 2.1: Lower annual electricity costs for residential customers

Change in cost components for the average residential customer across the NEM from 2018–19 to 2020–21, real $2020–21, excluding GST



Source: ACCC analysis based on retailers' data.

Retailers' average annual costs to supply electricity to a residential customer decreased by around $128 or 8% in the last 2 financial years (figure 2.1). This is a welcome outcome since we last reported on cost stack data. Since we previously examined retailers' annual costs for 2018–19, the average annual cost for a residential customer decreased by $31 or 2% in 2019–20, before a larger decrease of $97 or 6% in 2020–21.

As shown in figure 2.1, retailers incur 5 main cost components which are then charged to their customers. These are network, wholesale, environmental, retail costs, and retail margins.[2] We observe a declining trend across most cost components. This is consistent for most NEM regions.[3]

Network costs NEM-wide decreased in 2020–21 (by $31 or 5% less than the network component in 2019–20), offsetting a small increase in 2019–20 (by $9 or 1% more than the network component in 2018–19). Network costs remain the largest component of costs, comprising almost half of the total costs of supplying electricity to a residential customer (figure 1.1 in section 1). Distribution costs account for most network costs (around 75%), followed by transmission network costs (around 21%), with metering costs making up the balance.[4]

Wholesale electricity costs also declined in the last 2 years with a relatively large drop in 2020–21 (by $58 or 11% less than the wholesale component in 2019–20). Wholesale electricity costs are the second largest cost component, comprising almost one third of the total (figure 1.1). We examine the recent decreases in wholesale electricity costs further in section 3.

Compared with the network and wholesale cost proportions, environmental and retailer components account for relatively small shares of the total cost stack (figure 1.1 in section 1).

The retailer component (retail costs and margins) also declined in the last 2 years (by $52 or 22% less than the retailer component in 2018–19). We discuss the recent falls in retailer costs in section 4.

Environmental costs are the only component of the cost stack to increase in both financial years. In 2019–20 environmental costs increased by $7 or 5% more than the environmental component in 2018–19. Similarly, in 2020–21, environmental costs increased by $6 or 4% more than the environmental component in 2019–20. Environmental costs comprise 10% of the average annual residential bill (figure 1.1) and there is scope for future increases in subsequent years. We discuss environmental costs further in section 5.

2.2. The effective price of electricity is the cheapest in 8 years

Figure 2.2 shows the decrease in the cost of electricity in the last 2 financial years, within the context of a longer time series back to 2007–08. To account for changes in electricity consumption, this chart presents a price per unit of electricity (cents per kilowatt hour).[5] Each column on the chart shows the cost component proportions for that year.

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2 Cost stacks are explained in detail in box 1.1 in section 1.

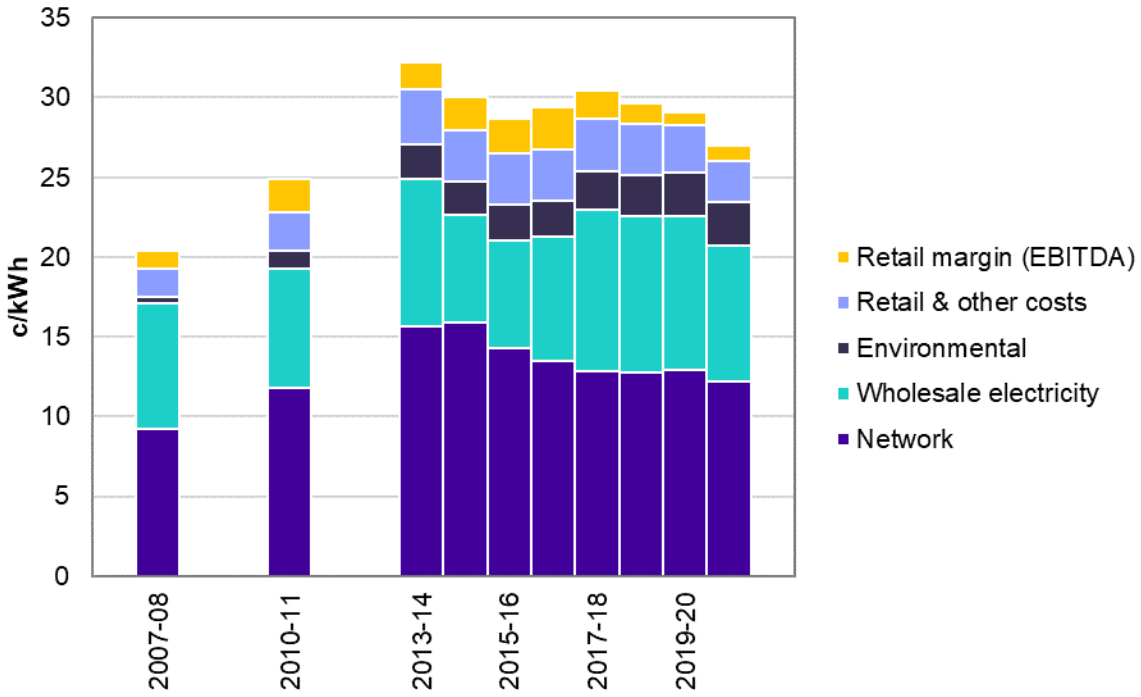
3 See figure E3.2 in appendix E.

4 See figure E5.1 in appendix E.

5 See box 1.2 in section 1.

Figure 2.2: Effective price of residential electricity is the cheapest in 8 years

Average residential customer effective price across the NEM from 2007–08 to 2020–21, real $2020–21, excluding GST



Source: ACCC analysis based on retailers' data.

Overall, the average effective price for a residential customer is the lowest in 8 years and is returning closer to the level last seen in 2010–11 (figure 2.2).[6] This decline is driven by the long-term trend in network cost decreases, as well as recent falls in previously high wholesale electricity costs. There has been a similar pattern of outcomes for small business customers.[7]

Figure 2.3 shows the long-term trends in electricity costs by focusing on changes in costs between 3 years:

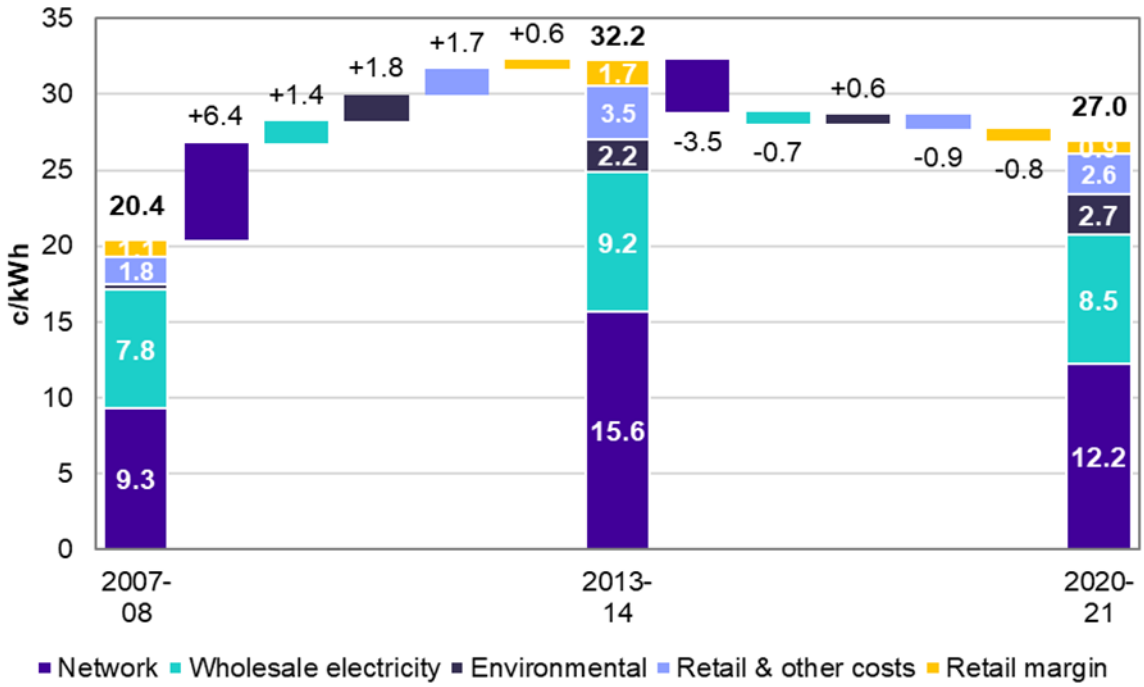
- 2007–08, the start of our dataset
- 2013–14, the overall cost peak
- 2020–21, the most recent year of data.

[6] The historic data observed in figure 2.2 reflects data collected in the ACCC's previous inquiry, the Retail Electricity Pricing Inquiry. This collection did not capture data for 2008–09, 2009–10, 2011–12 and 2012–13.

[7] See figure E2.5 in appendix E.

Figure 2.3: Network costs driving long-term changes in electricity costs

Change in cost components of the average residential customer effective price across the NEM from 2007–08 to 2013–14 to 2020–21, real $2020–21, excluding GST



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

Figure 2.3 shows that from 2007–08 to 2013–14, the average effective price increased from 20.4 c/kWh to 32.2 c/kWh, a rise of 11.8 c/kWh (or 58%) in 6 years. This is largely due to higher network costs, which contributed +6.4 c/kWh out of a total rise of 11.8 c/kWh, or 54% of the rise. There were moderate increases in all other components, led by environmental costs (+1.8 c/kWh or 15% of the total rise) and retail costs (+1.7 c/kWh or 14% of the rise).

From the overall cost peak in 2013–14 to 2020–21, the average effective price decreased from 32.2 c/kWh to 27.0 c/kWh, a drop of 5.3 c/kWh (or 16%) in 7 years. Figure 2.3 shows that the decrease in network costs accounts for most of the change (3.5 c/kWh out of a total fall of 5.3 c/kWh, or 65% of the fall) in the average effective price since 2013–14. Decreases in most other cost components also contributed to the fall, with the exception being environmental costs.

Comparison of the 2007–08 and 2020–21 cost stacks shows that 4 of the 5 cost components were higher in 2020–21.[8] In particular, network costs in 2020–21 were 2.9 c/kWh or 32% higher than they were in 2007–08. Environmental costs, which were just 0.4 c/kWh in 2007–08, were 2.7 c/kWh in 2020–21. Total costs per unit of electricity supplied have increased in net terms by 32% from 20.4 c/kWh in 2007–08 to 27.0 c/kWh in 2020–21.

Changes in network costs have been the largest long-term factor driving electricity costs up and then down. At the overall cost peak in 2013–14 network costs made up around 48% of total costs for an average residential customer. This is lower in 2020–21 at 45%.

[8] The exception is retail margins, which were down from 1.1 c/kWh to 0.9 c/kWh.

The recent decline in network costs is a positive outcome for customers, even though they remain a significant portion of total costs. However, it is important to note that network costs have come down this far from what was a very high level at the network cost peak in 2014–15 (figure 2.2). They are still substantially higher than they were in 2007–08. We have previously drawn attention to past over-investment in network assets in New South Wales, south-east Queensland and Tasmania, which has led to inefficiently high electricity prices. [9] Customers in those regions continue to pay for over-investment in network assets and will until the remainder of the economic life of the assets, which could be up to 50 years.

We have previously reported on developments in network regulation that can explain the gradual decline in network costs seen from 2014–15 onwards in figure 2.2, and these remain relevant:

- Lower financing costs since the Global Financial Crisis has resulted in the Australian Energy Regulator setting lower allowed rates of return for network businesses.[10]
- The implementation of the Australian Energy Regulator's incentive schemes for capital and operating expenditure has promoted operating efficiencies by network businesses.[11]
- Weaker electricity demand has slowed the need for new network investment.[12]
- The abolishment of limited merits review in October 2017 reduced the scope for Australian Competition Tribunal decisions adding to network revenues.[13]
- A relaxation of network reliability standards (particularly in New South Wales and Queensland from 2014) brought them into line with values that customers place on reliability.[14]
- Regulatory refinements, such as the Australian Energy Regulator's wider use of benchmarking to assess efficient costs, have helped ensure consumers pay no more than necessary for the safe and reliable supply of electricity.[15]

Combined, all these aspects mean the Australian Energy Regulator has reduced the revenue allowed for transmission and distribution networks. Revenue decisions for different networks are spread over a 5-year regulatory cycle, so this results in a gradual overall reduction across time.[16] The vast majority of electricity network decisions by the Australian Energy Regulator over 2018–2021 approved lower allowable revenues than in the previous decision period.[17]

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9 In the Retail Electricity Pricing Inquiry we recognised that over-investment in networks will lead to higher network costs as network companies recover their return on and of capital based on a higher than efficient regulatory asset base. This is exacerbated for non-solar customers if solar customers are incentivised to switch away from the use of grid-supplied electricity because network asset costs are recovered from a smaller customer base. See Australian Competition Consumer Commission, *Retail Electricity Pricing Inquiry - Final report June 2018*, Commonwealth Government, 11 June 2018, pp 159, 167–168.

10 Australian Energy Regulator, *State of the energy market 2018*, Commonwealth of Australia, 17 December 2018, p 160.

11 Australian Competition Consumer Commission, *Retail Electricity Pricing Inquiry - Final report June 2018*, Commonwealth Government, 11 June 2018, p 158.

12 Australian Energy Regulator, *State of the energy market 2021*, Commonwealth of Australia, 2 July 2021, p 147.

13 Competition and Consumer Amendment (Abolition of Limited Merits Review) Act 2017 (Cth).

14 The Queensland and New South Wales Governments introduced stringent input-based reliability standards in 2005. Although these standards were relaxed from 2014, during the period when these standards were in force significant over-investment occurred in these states. In contrast, Victoria placed more emphasis on reliability outcomes and the value that customers place on reliability. See Australian Energy Regulator, *State of the energy market 2018*, Commonwealth of Australia, 17 December 2018, p 173; and Australian Energy Regulator, *State of the energy market 2020*, Commonwealth of Australia, 1 July 2020, pp 17, 162.

15 Australian Energy Regulator, *State of the energy market 2021*, Commonwealth of Australia, 2 July 2021, p 147; Australian Energy Regulator, *Annual Benchmarking Reports 2020*, Commonwealth of Australia, 27 November 2020, p 11.

16 Australian Energy Regulator, *Determinations and Access Arrangements*, Commonwealth of Australia, accessed 16 November 2021.

17 Australian Energy Regulator, *Determinations and Access Arrangements*, Commonwealth of Australia, accessed 16 November 2021. Only one out of 14 distribution network decisions had a real increase in average annual revenue from

Network costs are expected to continue to fall over the next few years, reflecting the current low interest rate environment and the lower required rate of return. In simple terms, network businesses can obtain the capital they need to operate more cheaply than in the past.[18] Because of the 5-year regulatory cycle, Australian Energy Regulator decisions in 2022 will be for networks that last had their revenues reset in 2017, when the market rate of return was much higher than current rates.[19] It is therefore likely that these upcoming decisions will reduce the rate of return for these networks, even if interest rates begin to rise in 2022.

However, there is more uncertainty about the impact of the rate of return on network costs beyond this horizon. The extent of past investment in network assets means that total revenues are sensitive to even small changes in the rate of return. Future increases in market interest rates could cause substantial upward pressure on network costs. This will be particularly relevant when networks who have already had their rate of return reset in the current low return environment commence a subsequent regulatory cycle.

2.3. Lower effective prices for small and large business customers

The decrease in costs for residential customers is also broadly mirrored in results for small business customers (also described as small and medium enterprises) and large businesses (also described as commercial and industrial customers). The costs of supplying electricity to these customers decreased in the last 2 years, principally driven by decreases in wholesale electricity costs.

Figure 2.4 shows the small business customer cost stack across the last 2 financial years. As there is large variation in electricity usage across small business customers, this is presented on an 'effective price' basis – that is, cost per unit of electricity basis (cents per kilowatt hour).

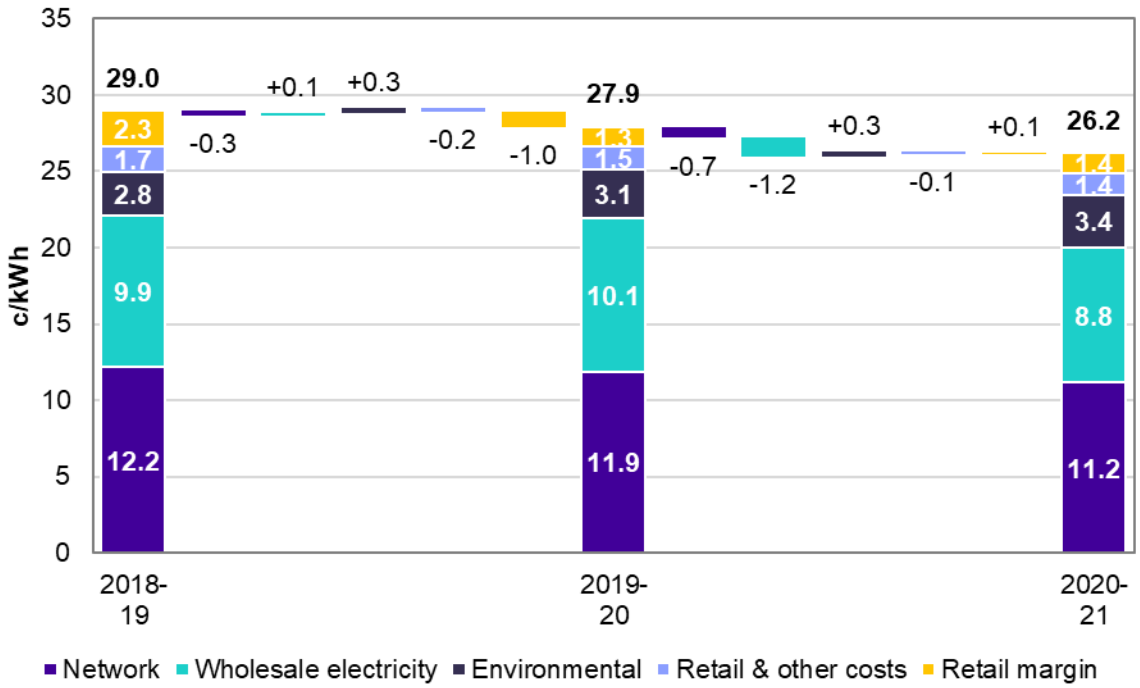
the prior period (AusNet Services (Distribution) in April 2021), For transmission, 2 out of 7 decisions had a real increase, but these were both interconnectors with relatively minimal revenue impact (Murraylink in April 2018 and Directlink in June 2020). This includes the 2021 draft decisions for AusNet Services (Transmission) and Powerlink; final decisions for these networks will be released in 2022.

18 Australian Energy Regulator, *State of the energy market 2021*, Commonwealth of Australia, 2 July 2021, p 146.

19 Further, these decisions were made under the 2013 Rate of return guideline; the 2018 Rate of return guideline changed several aspects of the determination of the rate of return, generally resulting in lower outcomes.

Figure 2.4: Lower effective price for small business customers

Change in cost components of the average small business customer effective price across the NEM from 2018–19 to 2020–21, real $2020–21, excluding GST



Source: ACCC analysis based on retailers' data.

Figure 2.4 shows the average effective price for small business customers fell in the last 2 years, down by 10% to 26.2 c/kWh. The effective price for small business customers decreased in 2019–20 by 1.1 c/kWh (or 3.8%), before a larger decrease in 2020–21 of 1.7 c/kWh (or 6%).

The composition of the average effective price for a small business customer is broadly like that of a residential customer.[20] Network costs are the largest cost component, followed by wholesale electricity costs, with environmental and retail components substantially smaller. The effective price for the average small business customer (26.2 c/kWh in 2020–21) is close to, but slightly lower than, the effective price for the average residential customer (27.0 c/kWh).[21]

Retail margins for small business customers decreased from 2.3 c/kWh in 2018–19 to 1.4 c/kWh in 2020–21, a decrease of 41%. This appears to be an important reduction as retail margins were persistently high for small business customers up until the last 2 years.[22] This reduction may reflect an increase in small business customer engagement in the market following the introduction of pricing and advertising reforms in 2019 (as retailers make less from customers on cheaper offers). We noted in our November 2019 report our concern that the retail margin for small business customers was much larger than for residential customers.[23] The 2020–21 figure for small business retail margin is closer to, though still above, the margin for residential customers.[24]

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20 See figure E2.9 in appendix E.

21 See figure E2.9 in appendix E.

22 See figure E2.5 in appendix E.

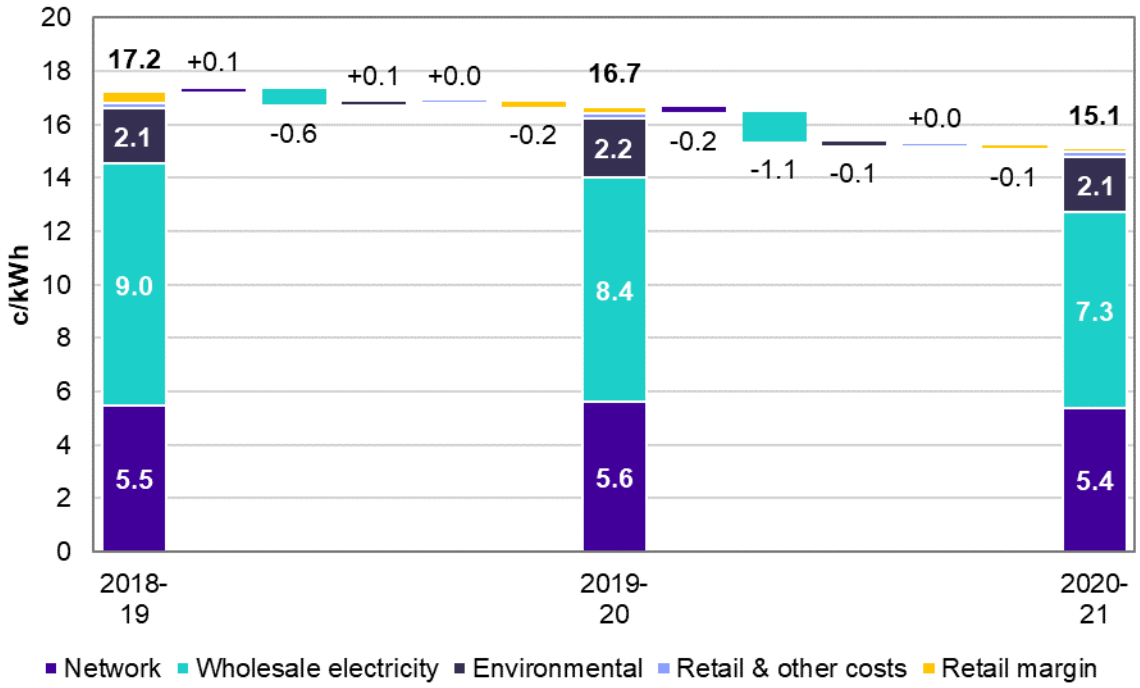
23 Australian Competition and Consumer Commission, *Inquiry into the National Electricity Market - November 2019 report*, Commonwealth of Australia, 22 December 2019, pp 9, 37–38.

24 The 2020–21 residential customer retail margin is 0.9 c/kWh; see figure 2.3.

Figure 2.5 shows the change in the large business customer cost stack across the last 2 financial years, on an effective price basis.

Figure 2.5: Drop in effective price for large business customers in 2020–21

Change in cost components of the average large business customer effective price across the NEM from 2018–19 to 2020–21, real $2020–21, excluding GST



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

Figure 2.5 shows the average effective price for a large business customer fell by 0.5 c/kWh (or 3%) in 2019-20, driven largely by a 0.6 c/kWh drop in wholesale electricity costs. The average effective price fell a further 1.6 c/kWh (or 10%) in 2020-21, again driven mainly by a 1.1 c/kWh (or 13%) drop in wholesale electricity costs.

Wholesale electricity costs make up almost half of the average effective price for large business customers (49%), compared to around one-third for residential and small business customers.[25] Therefore, the decrease in wholesale electricity costs has had a relatively larger impact on the average effective price for large business customers than residential customers. Retail costs and margins are a very small proportion for large business customers.[26] While retail margins are just one per cent of the large business customer cost stack, large business customers use much higher volumes of electricity so that revenue received from these customers remains significant.

The overall effective price for large business customers (15.1 c/kWh in 2020–21) is just over half the effective price for residential (27.0 c/kWh) and small business customers (26.2 c/kWh).[27] Of course, large business customers have much higher electricity consumption, meaning that the fixed costs of a large customer's bill are spread across more units of electricity. Further, retailer contracts for large business customers are typically very

[25] See figure E2.10 in appendix E.

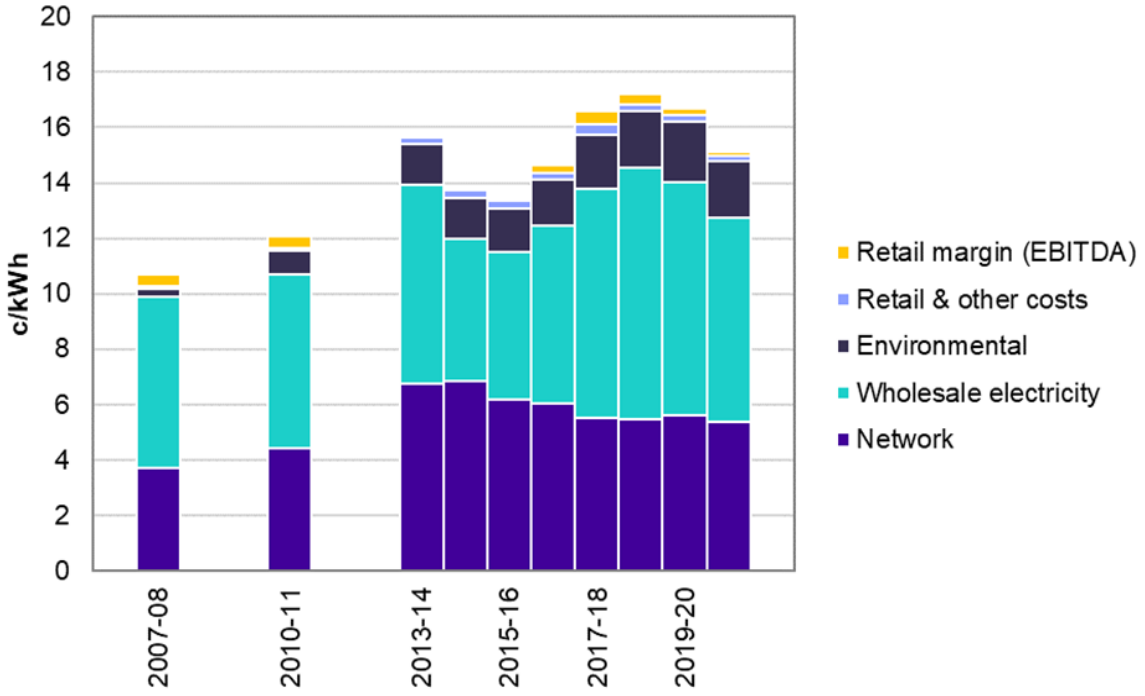
[26] See figure E2.10 in appendix E.

[27] See figure E2.9 in appendix E.

different from those for residential and small business customers, which may include direct engagement with the spot market and purchasing of hedging contracts.[28]

Figure 2.6: Cheapest effective price for large business customers in 4 years

Average large business customer effective price across the NEM from 2007–08 to 2020–21, real $2020–21, excluding GST



Source: ACCC analysis based on retailers' data.

As for residential customers, figure 2.6 shows the decrease in the cost of electricity for large business customers in the last 2 financial years, within the context of a longer time series back to 2007–08. The average effective price of electricity for large business customers is 15.1 c/kWh in 2020–21. This is the cheapest in 4 years, although still much higher than in 2007–08 when it was 10.7 c/kWh). The decline in the average effective price for large business customers is mostly driven by recent falls in previously high wholesale electricity costs. Wholesale costs peaked in 2018–19 at 9.0 c/kWh and dropped to 7.3 c/kWh in 2020–21 (a fall of 19%). Even after this decrease, the current level remains higher than in 2014–15 when wholesale costs were at their lowest at 5.2 c/kWh.

Network costs for large business customers have followed a similar pattern since 2007–08 to residential customers. Network costs peaked in 2014–15 (6.8 c/kWh) and while network costs have come down in 2020–21 (to 5.4 c/kWh) it remains higher than the 2007–08 level (3.7 c/kWh).

[28] Australian Competition Consumer Commission, *Retail Electricity Pricing Inquiry - Final report June 2018*, Commonwealth Government, 11 June 2018, p 352.

3. Decreases in wholesale electricity costs have started to flow through to customers

Wholesale electricity is the second largest cost component and makes up 32% of the total electricity cost for residential customers, as outlined in section 1 (figure 1.1). Wholesale costs have fallen recently, particularly in the 2020–21 financial year. This is the primary cause of the recent decrease in overall electricity costs. The decrease in wholesale costs reflects the significant fall in wholesale electricity spot market prices. However, the decrease in wholesale spot market prices is larger than the decrease in wholesale costs observed so far, so we expect there is more to come. Our legislated role is to make sure that these cost reductions are passed through to customers.

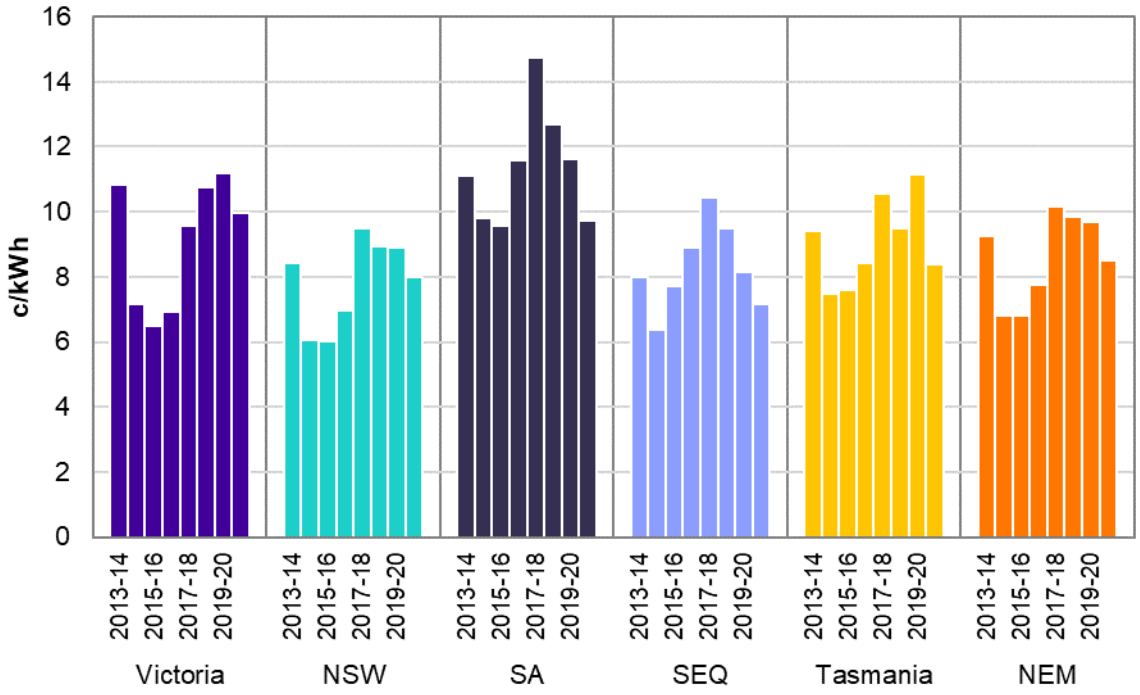
3.1. Decreases in wholesale electricity costs

Wholesale electricity costs have decreased over the last 2 years, with the trend accelerating in the last year. Broadly similar reductions were observed across all NEM regions in the last year, and across both residential and business customers.

Figure 3.1 displays wholesale costs for residential customers across the NEM. It is presented in effective price terms (cents per kilowatt hour) to adjust for differences in consumption over time and between NEM regions.

Figure 3.1: Wholesale electricity costs fell across all NEM regions in 2020–21

Average effective price for wholesale costs per residential customer by NEM regions, 2013–14 to 2020–21, real $2020–21, excluding GST



Source: ACCC analysis based on retailers' data.
Note: NSW includes ACT from 2019–20.

Figure 3.1 shows the average decrease for residential customers across the NEM over the last 2 years was 1.3 c/kWh or 14%. The decrease was principally in 2020–21, where the effective price fell from 9.7 c/kWh to 8.5 c/kWh from the previous year (a drop of 1.2 c/kWh

or 12%). The significant reductions in South Australia since 2017–18 mean Victoria (at 10.0 c/kWh) now has the highest average effective price of all NEM regions.

The pattern of results in wholesale costs per residential customer is very similar to the pattern of effective prices in figure 3.1 – an overall decline across the last 2 financial years, with most of the decline in 2020–21.[29] The NEM-wide average wholesale cost per residential customer was $519 in 2018–19, $511 in 2019–20 and $453 in 2020–21. Tasmania had the highest wholesale cost per residential customer ($713 in 2020–21), driven by high electricity use relative to other states.[30]

For small business customers across the NEM, the average decrease in the wholesale costs per kilowatt hour was 11% over the last 2 years following a 1% increase in 2019–20.

Large business customers experienced a proportionately greater decrease in wholesale costs per kilowatt hour, with a 19% reduction over the last 2 years, the majority of which occurred in 2020–21.

These recent reductions need to be considered in a longer context, also shown in figure 3.1. There was a period of low wholesale costs at the NEM-wide level in 2014–15 and 2015–16. A small increase in 2016–17 was followed by a substantial jump in costs in 2017–18. Three years of decreases followed this peak, but costs are still above those in the prior low period. Most NEM regions follow this overall pattern, though Victoria and Tasmania experienced a peak in wholesale costs as late as 2019–20 for some customer types.

Box 3.1: What costs does a retailer incur by buying electricity on the wholesale spot market?

At a basic level, a retailer's wholesale costs are the payments it makes to generators who create the electricity used by the retailer's customers.

In the NEM, retailers purchase electricity from the wholesale spot market. Generators (such as coal power stations, gas powered generators, wind turbines, hydroelectric plants and solar farms) make offers (or bids) to the Australian Energy Market Operator for every 5-minute interval of the day (also known as 'dispatch intervals').[31] Each offer specifies the minimum price a generator needs to provide for a given amount of electricity at that time.

The Australian Energy Market Operator then dispatches a series of the offers, usually in the order of lowest to highest[32], until enough electricity is supplied to meet demand from retailers. As supply and demand change across time, wholesale spot market prices can vary substantially, from minus $1,000 per megawatt hour to (plus) $15,100 per megawatt hour. There are separate spot prices determined for each of the 5 NEM regions.[33] The Australian Energy Market Operator calculates the settlement price per unit of electricity, which is paid by the retailers and received by the generators in accordance with how much electricity they used/generated.

The retailer's wholesale costs also reflect contracts and financial instruments for purchasing electricity. These are discussed in box 3.2.

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29 See figure E6.1 in appendix E.

30 The relatively high level of Tasmanian residential electricity use is primarily because of household heating, given Tasmania's cold climate and low use of mains gas. See Frontier Economics, *Residential energy consumption benchmarks, Final report for the Australian Energy Regulator*, 9 December 2020, pp 23–25, accessed 16 November 2021.

31 Australian Energy Market Commission, *Fact sheet: How the spot market works*, Commonwealth of Australia, 28 November 2017, p 2.

32 Note, the Australian Energy Market Operator may at times not choose the lowest cost generator if dispatching it will overload the network.

33 Australian Energy Market Commission, *Spot and contract markets*, Commonwealth of Australia, accessed 16 November 2021.

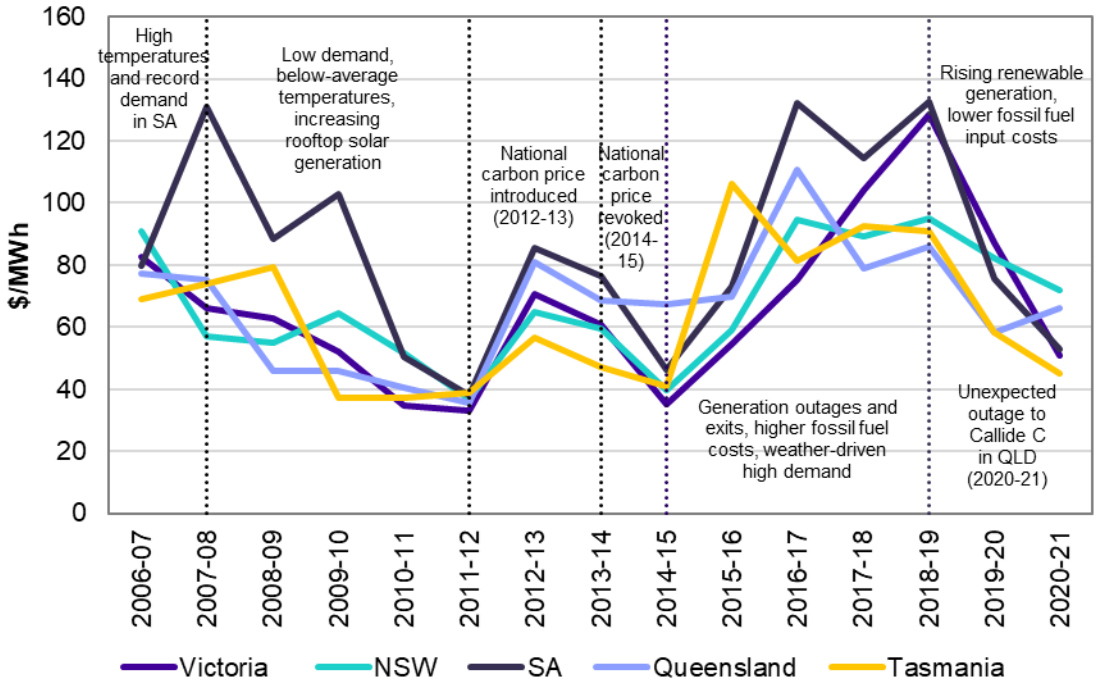
3.2. Larger decreases in wholesale spot market prices

There have been large falls in wholesale spot market prices across the NEM since 2018–19. These falls are materially larger than the decrease in the wholesale electricity costs incurred by retailers. While wholesale spot market prices are the starting point for retailers' wholesale costs, retailers usually hedge their exposure to wholesale spot market prices. This provides a plausible reason for a delay in lower wholesale spot market prices flowing through to lower wholesale costs.

Figure 3.2 provides a long-term view of wholesale spot market prices, across the 5 NEM regions. It includes selected market developments to provide context to the average market prices.

Figure 3.2: Wholesale spot market prices have varied widely over the last 15 years

Annual wholesale electricity spot market prices by NEM regions, 2006–07 to 2020–21, real $2020–21, excluding GST



Source: ACCC analysis of AEMO data.
Note: Volume-weighted average prices.

As shown by figure 3.2, various supply-side and demand-side drivers, as well as legislative changes, can have significant and long-term impacts on the wholesale spot market price.

There was a period of increasing spot market prices from 2014–15 to 2018–19. Many factors contributed to this multi-year trend. There were periods of higher fuel costs, planned and unplanned generation outages, and weather-driven high demand.[34] There was a tighter supply-demand balance as thermal power stations exited the market, though with some offsetting entry of renewable generation in its place.[35] This included closure of major coal fired plants in New South Wales (EnergyAustralia's 500 MW Wallerawang C-2 in April 2014), South Australia (Alinta's 540 MW Northern Power Station in May 2016) and Victoria (Engie's

[34] Australian Energy Regulator, *State of the Energy Market – 2017*, Commonwealth of Australia, May 2017, pp 52–53.

[35] Australian Energy Regulator, *State of the Energy Market – 2017*, Commonwealth of Australia, May 2017, pp 37, 40.

1600 MW Hazelwood in March 2017).[36] After these closures, more expensive black coal and gas plants began to set the spot price more frequently.[37]

However, there has been a marked downward trend from 2018–19 to 2020–21. The growth of renewable generation assets (solar and wind) began to have a significant effect on market prices, and fuel costs for traditional coal and gas generators were lower. There were also milder demand conditions, in part because of disruption to economic activity from the COVID-19 pandemic.[38] The 2020–21 financial year marked the first time since 2014–15 that average wholesale spot market prices across the NEM were below $75/MWh in all regions.[39]

Table 3.1 looks at the last 3 years from figure 3.2, focusing on the mainland NEM regions in more detail.

Table 3.1: Wholesale spot market prices have dropped significantly since 2018–19

Annual wholesale electricity spot prices (volume weighted average), real $2020–21, excluding GST

Period	Unit	Victoria	NSW	SA	QLD
2018–19	$/MWh	128	95	132	86
2019–20	$/MWh	87	82	76	58
2020–21	$/MWh	51	72	53	66
Change from 2018–19 to 2019–20	$/MWh change	-41	-13	-56	-28
	% change	-32%	-14%	-42%	-33%
Change from 2019–20 to 2020–21	$/MWh change	-36	-10	-23	+8
	% change	-41%	-12%	-30%	+14%
Change from 2018–19 to 2020–21	$/MWh change	-77	-23	-79	-20
	% change	-60%	-24%	-60%	-23%

Source: ACCC analysis of Australian Energy Regulator data.

This quantifies the reductions in wholesale spot market prices we have observed in the last 2 years. Both Victoria and South Australia have seen 60% reductions in spot market prices from 2018–19 to 2020–21. Wholesale spot market prices were lower in 2020–21 than in 2019–20 in all NEM regions except for Queensland, driven by low spot prices through the first 3 quarters of financial year 2020–21 (that is, 2020 Q3, 2020 Q4 and 2021 Q1).

The low wholesale spot market prices observed through these quarters were driven by a combination of supply side and demand side factors. Brown coal, wind, solar and hydro generation offered more capacity and low prices.[40] The growth in household solar generation also drove very low daytime prices (particularly in South Australia) and an increased

36 Australian Energy Regulator, *State of the Energy Market – 2018*, Commonwealth of Australia, December 2018, p 16.

37 Australian Energy Regulator, *State of the Energy Market – 2020*, Commonwealth of Australia, June 2020, p 13.

38 Australian Energy Regulator, *State of the Energy Market – 2020*, Commonwealth of Australia, June 2020, p 14.

39 This is calculated on a volume weighted average basis. Australian Energy Regulator, *Wholesale Markets Quarterly Q2 2021*, Commonwealth of Australia, August 2021, page iv.

40 Australian Energy Regulator, *Wholesale Markets Quarterly Q1 2021*, Commonwealth of Australia, May 2021, p 17.

incidence of negative prices.[41] The price of fuels used as inputs for generation was also low for 2020 Q3 facilitating cheap generation, before increasing over the next 2 quarters.[42] Demand was low across all 3 quarters due to mild temperatures and increased household solar generation.[43]

Against this, there were significant wholesale price spikes during 2021 Q2, with prices in Queensland reaching their highest level ever and New South Wales reaching their highest since 2007. These increases were caused by several planned and unplanned coal generator outages, including the Callide C generator in Queensland, and network outages, coupled with high demand and increased (and more expensive) generation of gas and hydro.[44] There was a limited period of very high prices as a result, with a proportionate effect on the yearly averages shown in table 3.1.

Wholesale spot market prices vary between NEM regions due to localised supply and demand factors. Interconnectors allow generation to flow between adjacent regions and so help regional prices to converge. However, limits on the amount of electricity that can flow through a given interconnector mean there can still be large differences in wholesale spot market prices between regions.

3.3. We expect further reductions in retailers' wholesale costs

Looking at changes from 2018–19 to 2020–21, there appears to be a material difference between:

- the reduction in wholesale costs on a cents per kilowatt hour basis (14% for residential customers, 11% for small business customers, and 19% for large business customers)
- the reduction in wholesale spot market prices (20% to 60% depending on region).

This difference reflects a time lag arising from retailers' aggregate hedging behaviour. Retailers' hedging strategies commonly involve entering into contracts that commit them to purchasing a volume of electricity at an agreed price at an agreed point in the future.[45] They start to sign these contracts 2 or 3 years ahead of the date the electricity will be required. Over time, as market conditions evolve, they gradually build up a portfolio of contracts. This helps manage the volatility of spot market prices and allows retailers to then commit to tariffs for their customers (see box 3.2 for more detail on hedging).

The extent of the lag will vary between retailers, depending on the strategy each follows.

- Some retailers may accept the risk of purchasing a larger proportion of their electricity on the wholesale spot market. In this case a change in wholesale spot market prices (whether it is a decrease or an increase) will more quickly flow through to the retailers' wholesale electricity costs.
- Other retailers may be more conservative, with a larger portfolio of hedging contracts and minimal exposure to spot prices. Even here, changes in wholesale spot market prices should eventually flow through to retailers' wholesale costs, as old contracts expire and

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41 Australian Energy Regulator, *Wholesale Markets Quarterly Q3 2020*, Commonwealth of Australia, November 2020, p 7.

42 Australian Energy Regulator, *Wholesale Markets Quarterly Q3 2020*, Commonwealth of Australia, November 2020, p 21; Australian Energy Regulator, *Wholesale Markets Quarterly Q4 2020*, Commonwealth of Australia, February 2021, p 17; Australian Energy Regulator, *Wholesale Markets Quarterly Q1 2021*, Commonwealth of Australia, May 2021, p 13.

43 Australian Energy Regulator, *Wholesale Markets Quarterly Q1 2021*, Commonwealth of Australia, May 2021, p 10.

44 Australian Energy Regulator, *Wholesale Markets Quarterly Q2 2021*, Commonwealth of Australia, August 2021, p 5.

45 This describes the key outcome, but the underlying transactions are more complex. In a simple example between a retailer and a generator, the retailer will pay through the NEM for the electricity at the spot price determined by AEMO, and the generator will receive this amount. If the spot price is above the strike price in the hedging contract, the generator will then pay the difference to the retailer. If the spot price is below the strike price in the hedging contract, the retailer will then pay the difference to the generator. The net effect is that the retailer pays, and the generator receives, the agreed price in the hedging contract.

those retailers enter into newer hedge contracts that are likely to reflect current spot market prices.

In aggregate, we expect there will still be a material number of older, more expensive hedging contracts being replaced in 2021–22, lowering retailers' wholesale costs in the upcoming year.

Box 3.2: What costs does a retailer incur by managing wholesale spot market price risks?

In addition to the payments for purchasing electricity on the wholesale spot market (described in box 3.1, above), a retailer's wholesale costs also usually include contracts that change its financial exposure to wholesale spot market prices (that is, how exposed the retailer is to the risk of changing spot market prices). These 'hedging contracts' take various forms – swaps, caps, floors, options and more.

Retailers use hedging contracts to manage the risk from highly variable wholesale spot market prices, locking in long-term costs at a fixed rate.[46] Contracts provide retailers with a consistent price for electricity, which allow them to write longer-term and more stable contracts with consumers.[47] The contracts also help generators to manage these same risks, and lock in revenues in advance.

Retailers can trade in electricity future products on the Australian Securities Exchange or Financial and Energy Exchange, or negotiate directly with another party (known as 'over-the-counter' market) to lock in a price to buy or sell a given amount of electricity at a specified time in the future.

Financial markets operate in parallel with the NEM wholesale spot market. An important consequence of these markets is that a retailer's actual wholesale costs may not immediately reflect changes in wholesale spot market prices during the relevant period. This is because retailers usually lock in wholesale costs ahead of time by building up a portfolio of hedges to manage the risk of fluctuating wholesale spot market prices over a particular period.

Vertical integration into generation is type of 'natural hedge', where a business has both retail and generation businesses to internalise the risks of variability in the wholesale spot market. These vertically integrated businesses are often referred to as 'gentailers'. The natural hedge means that if wholesale spot market prices are high, while the retail business may incur higher costs, the generation business may benefit from higher revenues.

Alongside the lag effect arising from hedging contracts, we can also look to electricity markets for current expectations of future wholesale spot market prices.

Figure 3.3 presents the price of quarterly base futures contracts for the next 4 years, as of 2021 Q3. Quarterly base futures contracts are the most commonly traded futures contract and their forward prices give an indication of the expected average wholesale spot price in each region.[48]

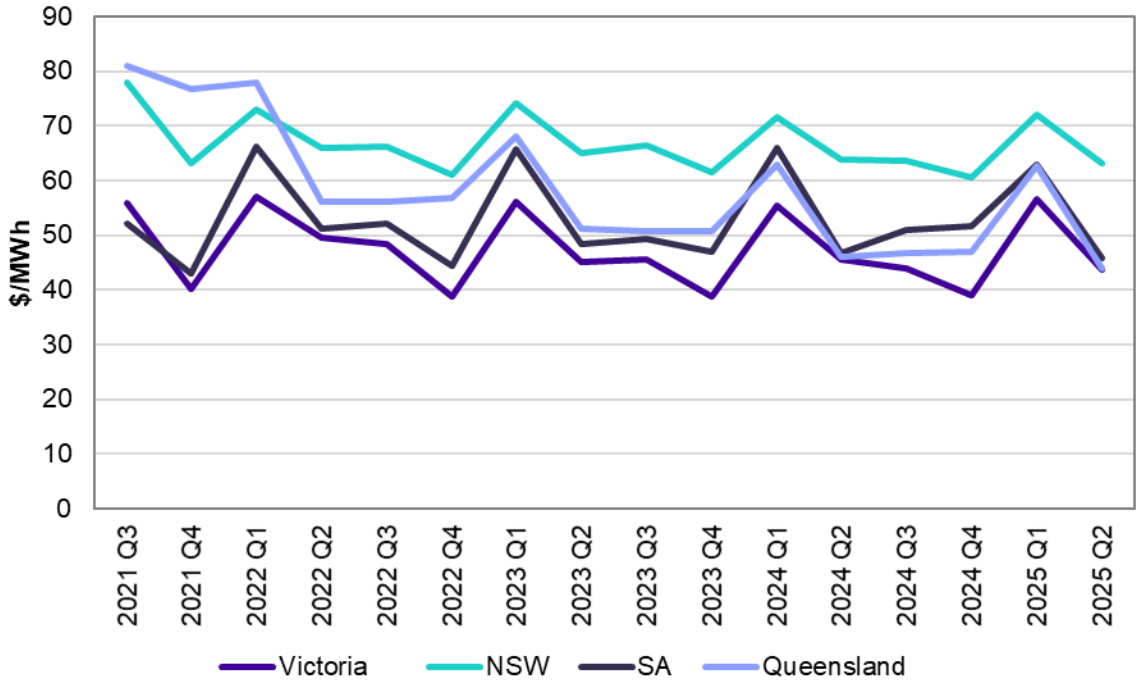
[46] Australian Energy Market Commission, *Fact sheet: How the spot market works*, Commonwealth of Australia, 28 November 2017, p 3.

[47] Australian Energy Market Commission, *Fact sheet: How the spot market works*, Commonwealth of Australia, 28 November 2017, p 3.

[48] Australian Energy Regulator, *Wholesale Markets Quarterly Q2 2021*, Commonwealth of Australia, August 2021, p 7.

Figure 3.3: Forward looking wholesale spot market prices remain stable and relatively low

Quarterly base futures prices by NEM regions, 2021 to 2025, as of 2021 Q3



Source: ACCC analysis of ASX data.
Note: Prices for base contracts for each quarter as at 30 September 2021.

Figure 3.3 indicates that the impact of the wholesale spot market price spikes in 2021 Q2, outlined above, appears to be relatively short-term and confined to New South Wales and Queensland. However, average spot prices across 2021–22 may be slightly higher than in 2020–21. After this, electricity contract prices remain relatively stable for most of the next 4 years. Figure 3.3 also demonstrates the seasonal nature of wholesale spot market prices, with regular spikes in quarter 1 of each year representing anticipated summer demand peaks. Notably, contract prices in New South Wales are the highest of all states from 2022 Q2 onwards. Contract prices in Victoria are the lowest in most of the forward quarters.

We acknowledge there is uncertainty around future wholesale spot market prices. However, the magnitude of the observed decrease in recent years means spot market prices could rise from 2020–21 to 2021–22 and still be substantially below the levels seen in 2018–19.

Given the observed magnitude of recent decreases in wholesale spot market prices, and the hedging-contract driven lag in these being reflected in retailers' costs, we expect further reductions in retailers' wholesale costs in 2021–22.

3.4. We monitor retailers to ensure consumers receive price adjustments

We monitor and enforce the prohibitions under the *Prohibiting Energy Market Misconduct Act 2020* (PEMM Act) so that cost reductions are passed through to consumers. We actively monitor retailers' compliance with the Act and are investigating retailers that may not have passed on cost reductions.

The PEMM Act introduced 3 new prohibitions to the *Competition and Consumer Act 2010* (Cth), which took effect from 10 June 2020. This includes the retail prohibition which requires electricity retailers to make reasonable adjustments to their prices if they have experienced a sustained and substantial reduction in the 'underlying costs of procuring electricity'.[49]

The ACCC actively monitors and ensures compliance with the PEMM retail prohibition. This includes regular assessment of trends in the components that form retailers' cost stacks and prices of retailers' electricity offers. The ACCC has the power to compulsorily acquire information from retailers when investigating potential breaches of the retail prohibition. We also respond to and investigate complaints from customers and market participants. The ACCC has approached a number of electricity retailers who may not have adequately passed on cost savings to their customers and will continue to closely monitor the behaviour of retailers in the electricity market.

As noted previously, reductions in wholesale electricity spot prices may take some time to flow through to retailers' wholesale electricity contracts. However, the observed wholesale spot market price reductions are large and have persisted for some time. Aggregated data indicates this is resulting in declining average wholesale costs and we consider it is likely that significant cost reductions have occurred for retailers across the NEM. This should prompt price adjustments from retailers.

In April 2021, we estimated that retail electricity offers for households in the NEM were an average of 8.8% lower than they were in June 2020, which equated to an average annual saving per household of $126.[50] If all households were to take up this saving, for example by switching from their existing contract to a lower offer, the aggregate saving would be about $900 million in total. Since then, we have continued to observe reductions in the price of retail offers in most regions and anticipate further reductions will occur if wholesale spot market prices remain low.

[49] The PEMM Act introduced Part XICA of the *Competition and Consumer Act 2010* (Cth), through the *Treasury Laws Amendment (Prohibiting Energy Market Misconduct) Act 2019* (Cth). The PEMM Act also aims to prevent generators from distorting or manipulating wholesale prices (the 'spot market' prohibitions) or reducing competition by blocking access to or failing to offer electricity contracts (the 'contracting' prohibition), both of which could increase retail prices for customers.

[50] Australian Competition and Consumer Commission, *$900 million in electricity bill savings available to households* [media release], Commonwealth of Australia, 13 April 2021.

4. Retail costs and margins continue to decrease

'Retail costs' refer to the cost directly incurred by retailers in operating their own business. The 'retail margin' is the amount remaining after all of the other components of the cost stack are incurred. That is, a retailer will seek to recover its cost of operations from customers and obtain a level of retail margin.

We report on the retail margin at the EBITDA level, reflecting the earnings before interest, tax, depreciation and amortisation. This means the retail margin covers the interest payments on any loans, tax payments on any taxable profit, the depreciation allowance (return of invested capital), and dividends or other payments to the equity owners (return on invested capital).

Retail costs and margins typically make up a small portion of total costs. For an average residential customer, retail costs account for 10% and the retail margin accounts for 3% of the total (figure 1.1 in section 1).

4.1. Retail costs and margins decreased in the last 2 years

Retail costs have decreased in the last 2 financial years. Retail margins also decreased in net terms over the last 2 financial years, notwithstanding a small increase in the most recent financial year. There has been a multi-year trend of gradual reductions in retail costs and margins. This general pattern is found across most NEM regions and for both residential and small business customers.[51]

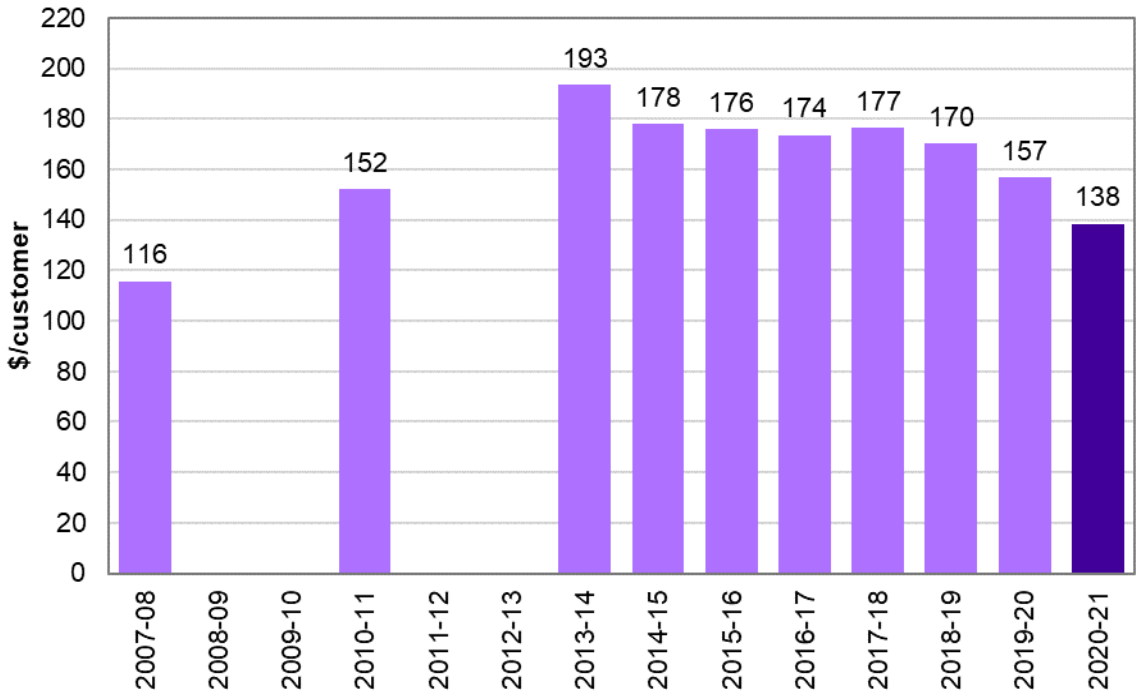
Figure 4.1 shows the recent decreases in retail costs in context of the data previously collected by ACCC's Retail Electricity Pricing Inquiry (REPI) from 2007–08.[52]

[51] See figures E4.3 – E4.7 and E4.9 – E4.12 in appendix E.

[52] To reduce regulatory burden on retailers, REPI collected data for only selected years prior to 2013–14 (specifically 2007–08 and 2010–11).

Figure 4.1: Retail costs are back below 2010–11 levels

Average retail and other costs over time per residential customer across the NEM, 2007–08 to 2020–21, real $2020–21, excluding GST



Source: ACCC analysis based on retailers' data.

Retail costs were $138 per residential customer across the NEM in 2020–21. This was a reduction of $32 or 19% in the last 2 financial years. The decline from 2019–20 to 2020–21 was $18 or 12%. There is a multi-year downwards trend, where these costs peaked in 2013–14 at $193 per customer. Retail costs are now back below 2010–11 levels, although they remain materially above the retail costs in 2007–08.

The retail costs shown in figure 4.1 include 2 main categories of costs: cost to serve, and cost to acquire and retain. These are discussed in more detail below.[53]

Figure 4.1 shows NEM-wide outcomes, but the same pattern is found across almost all NEM regions.[54] There have been multiple years of consecutive decreases in retail costs per customer in each region, except for Tasmania. There is also close alignment in the absolute level of retail costs in 2020–21: the highest is $151 in Victoria, and the lowest is $132 in south-east Queensland and in New South Wales.[55] However, this might partly be because of cost allocation methods adopted by retailers who operate in multiple regions, where many costs related to servicing customers are not region specific but spread over the whole customer base. A similar allocation issue also affects retail margins, as we discuss below.

Our Tasmanian findings do not split retail costs and margins, but instead present them as a combined retail component.[56] These results relate to the retailer Aurora Energy, where we

[53] The retail costs in figure 4.1 also include smaller amounts of unallocated or miscellaneous retail costs and some shared costs that could not otherwise be allocated across categories.

[54] See figure E8.1 in appendix E.

[55] See supplementary table E8.1 B in appendix E.

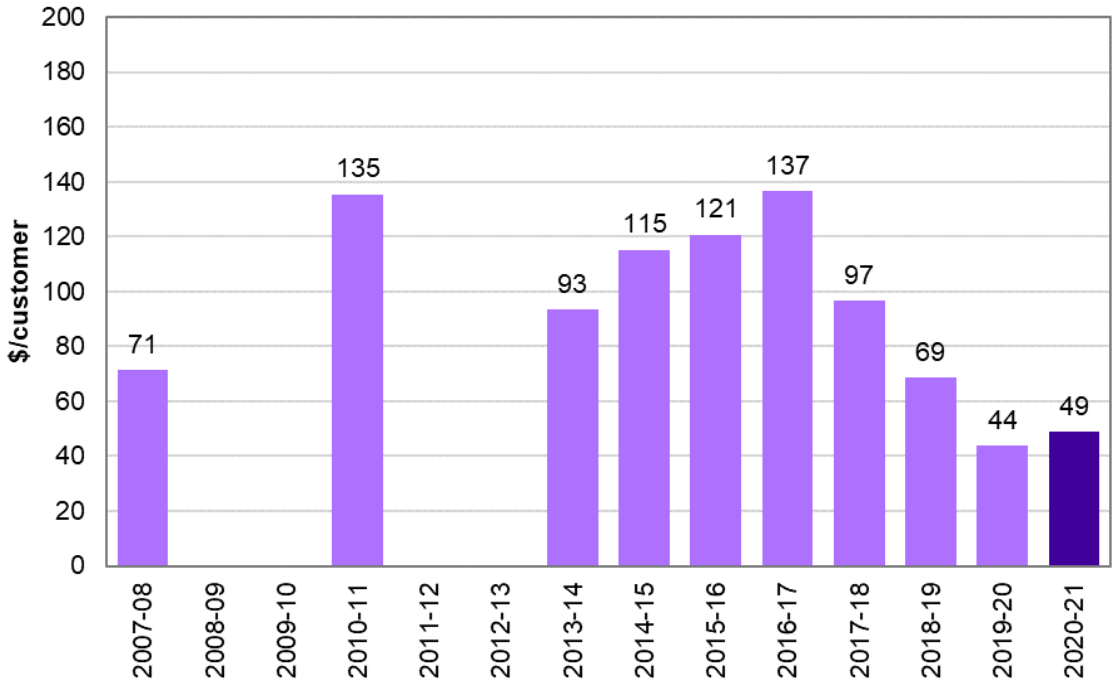
[56] See figure E8.1 in appendix E.

do not disaggregate this data on confidentiality grounds. We discuss the difference in overall trends in Tasmania together with retail margins below.

Figure 4.2 shows retail margins across the NEM as a whole. We use EBITDA as the reported measure of retail margin. This should not be equated with the final profit for retailers. The retailers still have costs to pay from EBITDA, which include interest on any debt, taxes on any eligible amount, and to account for depreciation or amortisation of assets.

Figure 4.2: Retail margins in 2019–20 were the lowest on record

Average retail margins (as earnings before interest, tax, depreciation and amortisation or EBITDA) per residential customer across the NEM, 2007–08 to 2020–21, real $2020–21, excluding GST



Source: ACCC analysis based on retailers' data.

The average retail margin across the NEM was $49 per residential customer in 2020–21, which was a drop of $20 or 29% across the last 2 financial years. Retail margins were down $25 or 36% from 2018–19 to 2019–20, then increased slightly by $5 or 12% from 2019–20 to 2020–21. The slight increase in retail margins in 2020–21 means 2019–20 had the lowest margins on record.

As shown in figure 4.2, there has been a substantial decline from 2016–17, where retail margins peaked at $137 per average residential customer. The general trend of multi-year decreases in retail margins is present in almost all NEM regions; Tasmania, where we do not separately report retail costs and margin, is the exception.[57]

The decrease in margins is such that in 2020–21, retail margin is negative in South Australia and south-east Queensland. On this measure, the average retailer in these regions is operating at a loss. We note that:

[57] See figure E8.1 in appendix E. Tasmania's retail component (that is, combined retail costs and margins) experienced a substantial decrease in 2019–20, followed by a substantial increase in 2020–21. As noted in our November 2019 report, the unique trends in Tasmania may be explained by the Office of the Tasmanian Economic Regulator, Tasmania's state regulator, regulating Aurora Energy's retail margin. As a result, the regulatory pricing mechanism allows for revenues to be recovered from, or credited to, customers due to under or over recoveries in prior periods.

- It is not uncommon that a business could operate at a loss in a particular financial year. This is more likely to occur when there are large adverse shocks to the economy, such as the COVID-19 pandemic.
- For retailers operating in multiple regions, many costs related to servicing customers are not region specific but spread over the whole customer base. The allocation decisions made to apportion costs between regions can materially affect the reporting of retail margin at the region level. Retail margin (EBITDA) is therefore a more reliable metric at a whole of business level. For some retailers this means NEM-wide, but some operate only in certain regions.

NEM-wide retail margins are below 2007–08 levels and have been so since 2018–19. Although retail margins are trending down, it is difficult to conclude definitively the drivers. However, we can identify some potentially relevant factors:

- **Regulatory actions, including the introduction of the Default Market Offer and Victorian Default Offer**. There have been numerous regulatory actions designed to enhance transparency and eliminate market distortions, which also support increased competition. In particular, the introduction of the Default Market Offer and Victorian Default Offer in 2019 acted to reduce prices for those customers on standing offers. This could have directly contributed to reduced margins for retailers who previously had material numbers of customers on those higher-priced plans.

  In our May 2021 report we found no evidence that the introduction of the Default Market Offer and Victorian Default Offer had an adverse effect on market offer prices. The changes in 2019–20 effective market offer prices were broadly reflective of changes in input costs of wholesale, network and environmental costs.[58]
- **Competition in retailer energy markets and relatively low barriers to entry**. In January 2017, there were around 29 active retail brands who offered electricity contracts.[59] By February 2021 this increased to 44 businesses. While this is not sufficient to infer increased competition, the Australian Energy Regulator identified that retail markets for electricity in south-east Queensland, New South Wales, Victoria and South Australia have several competitive characteristics, such as a diversity of sellers making offers, intensive marketing activity and customer switching. It has also identified decreasing market concentration, with smaller retailers growing their customer base in established markets and expanding into new markets.[60]

  For example, the big 3 retailers (AGL Energy, Origin Energy and EnergyAustralia) are no longer the largest 3 retailers in each NEM region. These retailers supplied over 70% of small customers in 2017, falling to 64% in 2021.[61] Medium-sized retailers such as Alinta (south-east Queensland), Simply Energy (South Australia) and Snowy Hydro (New South Wales) have captured market share establishing themselves as a part of the largest 3 retailers in some NEM regions, servicing around 16% of electricity customers in total.[62]
- **The COVID-19 pandemic**. This was the pervasive factor for the Australian economy from the final quarter of 2019–20 into 2020–21. The effect of the pandemic on retailers' margins is complex and the net impact unclear. We noted in the May 2021 report substantial changes in usage which saw increases in residential customer usage but decreases in business customer usage implying mixed effects on specific retailers'

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58 Australian Competition and Consumer Commission, *Inquiry into the National Electricity Market—May 2021 report*, Commonwealth of Australia, 19 October 2021, pp 7, 25–26.

59 Australian Energy Regulator, *State of the Energy Market 2017*, Commonwealth of Australia, 30 May 2017, p 134.

60 Australian Energy Regulator, *State of the Energy Market 2021*, Commonwealth of Australia, 2 July 2021, pp 244, 246.

61 Australian Energy Regulator, *State of the Energy Market 2017*, Commonwealth of Australia, 30 May 2017, p 140; Australian Energy Regulator, *State of the Energy Market 2021*, Commonwealth of Australia, 2 July 2021, p 247.

62 The Australian Energy Regulator data includes customers in regional Queensland.

revenue depending on their market exposure.[63] If, as a result of the pandemic, an increasing proportion of customers were unable to pay their electricity bills, this would decrease revenue and so final retail margins would fall. Other implications from changes in customer debt levels are discussed later in this section.

- **Low interest rates**. The Reserve Bank of Australia's official cash rate decreased from 1.25% at the end of 2018–19 to 0.1% at the end of 2020–21. This decrease in interest rates might have led retailers to make lower provisions for the interest costs to be covered by their margins (when measured as earnings before interest, tax, depreciation and amortisation).

The general pattern of decreases in margins for small and large business customers is consistent with the pattern for residential customers.[64] We particularly note the retail margin for small business customers decreased from 2.3 c/kWh in 2018–19 to 1.4 c/kWh in 2020–21, representing a 1.0 c/kWh or 41% decrease.[65] We discuss the significance of this decline in small business retail margins under figure 2.4 in section 2. The retail margins of residential and small business customers have converged closer in 2020–21, from a 1.0 c/kWh difference in 2018–19 to 0.4 c/kWh difference in 2020–21.[66]

The absolute level of retail costs and margins for large business customers on a cents per kilowatt basis remains very low. This is because large business customers typically have a high volume of usage.

4.2. Average cost to serve customers continues to decline

The 'cost to serve' category reflects operating costs retailers face in servicing their customers, including billing systems and processes, customer enquiries, management of debt and compliance with regulatory obligations.

The analysis in this section splits retailers into 2 groups – the big 3 (Origin, EnergyAustralia, and AGL) and the non-big 3 (all other retailers). While other retailers have increased their market share in some regions, the big 3 still have advantages of incumbency, vertical integration and economies of scale. Retailers with strong economies of scale can spread their fixed costs and investments associated with providing retail services over a larger customer base. Also, trends in retail costs of the big 3 continue to be of interest because of the position of these retailers as incumbents when full retail competition was introduced.

In 2020-21, the big 3 retailers have a combined NEM-wide residential customer base of 5.8 million households, and all other retailers have 2.4 million residential customers.

Figure 4.3 shows the comparison of average cost to serve per residential customer across the NEM for both the big 3 and non-big 3 retailers from 2017–18 to 2020–21.

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63 Australian Competition and Consumer Commission, *Inquiry into the National Electricity Market—May 2021 report*, Commonwealth of Australia, 19 October 2021, p 14.

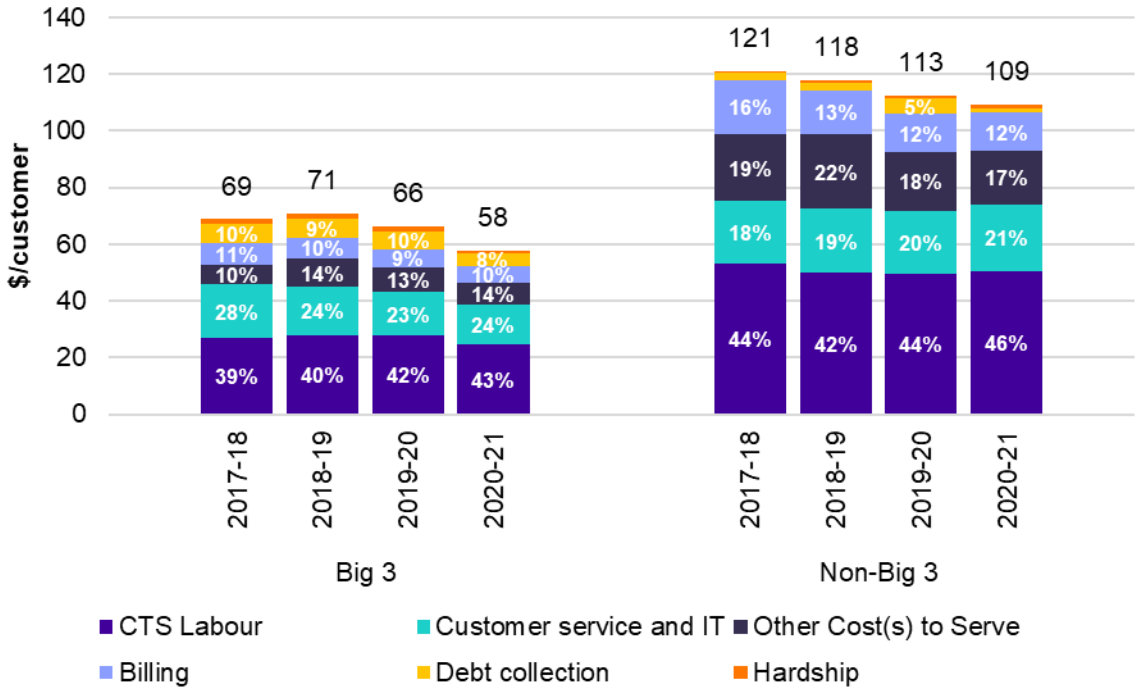
64 See figures E2.5 and E2.7 in appendix E. These figures report in cents per kilowatt hour, as a more relevant metric for business customers whose usage levels tend to vary greatly.

65 See figure E2.6 in appendix E.

66 See figure E2.3 and E2.6 in appendix E.

Figure 4.3: Decreases in cost to serve but big 3 still have large cost advantage

Average Cost to Serve per residential customer across the NEM by retailer tier and percentage of residential total, 2017–18 to 2020–21, real $2020-21, excluding GST



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

Average cost to serve per residential customer has followed a declining trend for both big 3 and non-big 3 retailers since our November 2019 report. Big 3 retailers continue to have lower cost to serve than non-big 3 retailers. Average cost to serve was $58 per residential customer for big 3 retailers, down $8 or 13% from the previous financial year, whereas for non-big 3 retailers, the cost to serve was $109 per customer, down $4 or 3% from the previous financial year.

The gap between big 3 and non-big 3 retailers in average cost to serve per residential customer is still broadly consistent. The cost advantage for big 3 retailers was $46 per customer in 2018–19 and 2019–20, and $51 per customer in 2020–21.

The customer base for non-big 3 retailers has increased from 2.1 million in 2018–19 to 2.4 million 2020–21. This might allow increasing economies of scale that could contribute to the decreased cost to serve per customer. However, this is also dependent on changes in the number of smaller retailers and their size distribution. Meanwhile, the customer base for big 3 retailers has remained relatively constant from 2018–19 to 2020–21.

Figure 4.3 also displays differences in expenditure proportions for various categories of cost to serve between big 3 and non-big 3 retailers, in the context of absolute expenditure. Expenditure proportions are relatively stable across the last 2 financial years, for both big 3 and non-big 3 retailers.

COVID-19 and effects on debt collection and hardship costs

The big 3 retailers have historically spent a higher baseline proportion on debt collection compared to non-big 3 retailers. This remains true, in both percentage terms as well as in absolute terms (figure 4.3).

The observed difference in debt collection levels has historically been attributed to the composition of the retailers' customer bases. The big 3 retailers acquired the customer books of incumbent state-owned retailers, whereas smaller retailers had acquired customers via active selection into their products.[67]

Figure 4.3 shows big 3 retailer expenditure on debt collection was broadly steady in 2018–19 at 9%, increased to 10% in 2019–20 and then decreased in 2020–21 to 8%. For the non-big 3 retailers, there was a one-year increase from 2% to 5% in 2019–20, then a return to 1% in 2020–21.

To understand these changes, it is important to note that 'debt collection' reported in our cost stack relates to debt management expenses incurred that year. Increasing (or decreasing) levels of customer debt do not immediately cause a change in related collection expenses if no action is taken towards the debt – for example, when debt collection activities are paused (see box 4.1). Increasing levels of customer debt will decrease reported revenues, though revenues might increase in future years if the debt is repaid. Bad debts, when customers cannot pay their bills, will eventually crystallise as an expense when written off as unrecoverable and will result in lower retail margins.

The 2019–20 single-year increase in non-big 3 debt collection costs appear related to the onset of the COVID-19 pandemic.[68] There is no corresponding increase in big 3 debt collection costs, with expenditure comparatively stable from 2018–19 through to 2020–21. However, the single year increase in non-big 3 debt collection costs was apparent because of the low baseline expenditure for these retailers. If the big 3 retailers were similarly affected, this would not change overall category expenditure if there were offsetting reductions in other debt collection expenditure. The pause in debt collection activities is one explanation for this.

The Australian Energy Regulator's (AER) *Statement of expectations* dated 9 April 2020, announced in response to the COVID-19 pandemic, instructed retailers to defer referrals to debt collection agencies for recovery actions or credit default listing until at least 30 June 2021 (see box 4.1).

For example, AGL stated in its 2021 Annual report:

> *FY21 commenced with close to 40,000 residential and small business customers being supported by our COVID-19 Support Program and regulatory restrictions on collections activities given the AER's Statement of Expectations for all energy retailers and ESC's written guidance to customers. The recommencement of collections activity (in August for National Energy Customer Framework states and in February 2021 for Victoria) drove an increase in customers seeking support but with higher average arrears given the delay in onboarding to our Staying Connected program.* [69]

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67 Australian Energy Regulator, *State of the Energy Market 2007* , Commonwealth of Australia, 26 July 2007, p 173; Australian Energy Regulator, *State of the Energy Market 2012*, Commonwealth of Australia, 20 December 2012, p 118.

68 As our data is collected on a financial year basis, we cannot rule out that these additional debt collection expenses were incurred earlier in the year (before the pandemic began to impact Australia).

69 AGL Energy Limited, *Annual Report 2021*, AGL website, 12 August 2021, p 21, accessed 16 November 2021.

Box 4.1: The Australian Energy Regulator's Statement of Expectations

In March 2020, the Australian Energy Regulator introduced a Statement of Expectations to provide extra protection and support to energy customers and the market through the COVID-19 pandemic. The Australian Energy Regulator's expectations reflected the widespread and unprecedented impacts of COVID-19 and subsequent need for support in addition to ongoing legal protection. Victorian energy consumers came under separate protections of the Essential Services Commission.

A number of the Australian Energy Regulator's principles focused on identifying and supporting customers experiencing financial difficulty, including expecting retailers to:

- offer all residential and small business customers who indicate they may be in financial stress a sustainable payment plan or hardship arrangement and work with these customers to minimise their energy cost
- not disconnect any customers in financial stress or who are in contact with the retailer in relation to their debt[70]
- defer referrals to debt collection agencies for recovery actions or credit default listing until at least 30 June 2021.

The Statement of Expectations was designed to be a short-term, temporary measure and was extended several times. Originally scheduled to end on 31 July 2020, it was extended until 30 June 2021. It was then followed by a standby Statement of Expectations that is automatically in effect for specific Local Government Areas when a Local Government Area is subject to stay-at-home orders that last for 7 days or more. The standby Statement of Expectations will continue to apply for 14 days after stay-at-home orders are lifted.

Hardship costs are incurred by retailers in support of customers on financial hardship programs. Hardship costs for a big 3 residential customer decreased from 3% in 2019–20 to 2% in 2020–21. For non-big 3 retailers, this cost remained steady at 1% for both 2019–20 and 2020–21. Note that, because non-big 3 retailers' overall expenditure was roughly twice that of the big 3 retailers, their absolute expenditure on hardship per customer was close to equal. The Australian Energy Regulator's retail performance reporting indicates that the big 3 retailers' residential hardship customers decreased from 49,730 to 39,610 from Q3 2019–20 to Q3 2020–21.[71] For non-big 3 retailers it increased from 24,631 to 28,068 over the same period.[72] The change in hardship customer numbers appears to be consistent with changes in hardship cost.

The overall decrease in hardship customers may reflect the positive effect of higher household savings during the COVID-19 pandemic and a greater ability for some customers to pay off debt. The Australian Bureau of Statistics found the household savings ratio was the highest in 34 years in 2019–20 (12.3 %) and this grew even larger in 2020–21 (15.2%), which is around triple the amount in prior years.[73] Higher household savings may be attributable to a reduction in household spending due to COVID-19 restrictions. It may also be because of government financial support, such as COVID-19 Disaster Payments being offered to households. The reduction in hardship customers is encouraging as hardship customers typically pay significantly more than general customers.[74]

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70 The Australian Energy Regulator released 4 statement of expectations of energy businesses in total. The conditions for small business disconnections vary from statement to statement.

71 Australian Energy Regulator, *Schedule 4 – Q3 2019-20 Retail Performance Data*, Commonwealth of Australia, 30 July 2020; Australian Energy Regulator, *Schedule 4 – Q3 2020-21 Retail Performance Data*, Commonwealth of Australia, 30 June 2021.

72 The Australian Energy Regulator retailer performance data does not reflect Victorian hardship customers.

73 Australian Bureau of Statistics, *Australian System of National Accounts 2019-20 key figures*, Australian Bureau of Statistics website, 30 October 2020, accessed 16 November 2021; Australian Bureau of Statistics, *Australian Bureau of Statistics 2020-21 key figures*, Australian Bureau of Statistics website, 29 October 2021, accessed 16 November 2021.

74 Australian Competition and Consumer Commission, *Inquiry into the National Electricity Market – May 2021 report*, Commonwealth of Australia, 24 June 2021, p 40.

We will continue to examine retailers' costs as well as the residual impact of the COVID-19 pandemic on customers in our future reports. The Australian Energy Regulator also provides ongoing reporting of data relevant to COVID-19 customer impacts and debt levels. This includes quarterly retail performance updates and a monthly COVID-19 data dashboard.[75] The Australian Energy Regulator also provides detailed commentary about customers in financial hardship in its annual retail markets report; the 2020-21 edition is expected to be released at the end of November 2021.[76]

4.3. Average cost to acquire and retain customers decreased

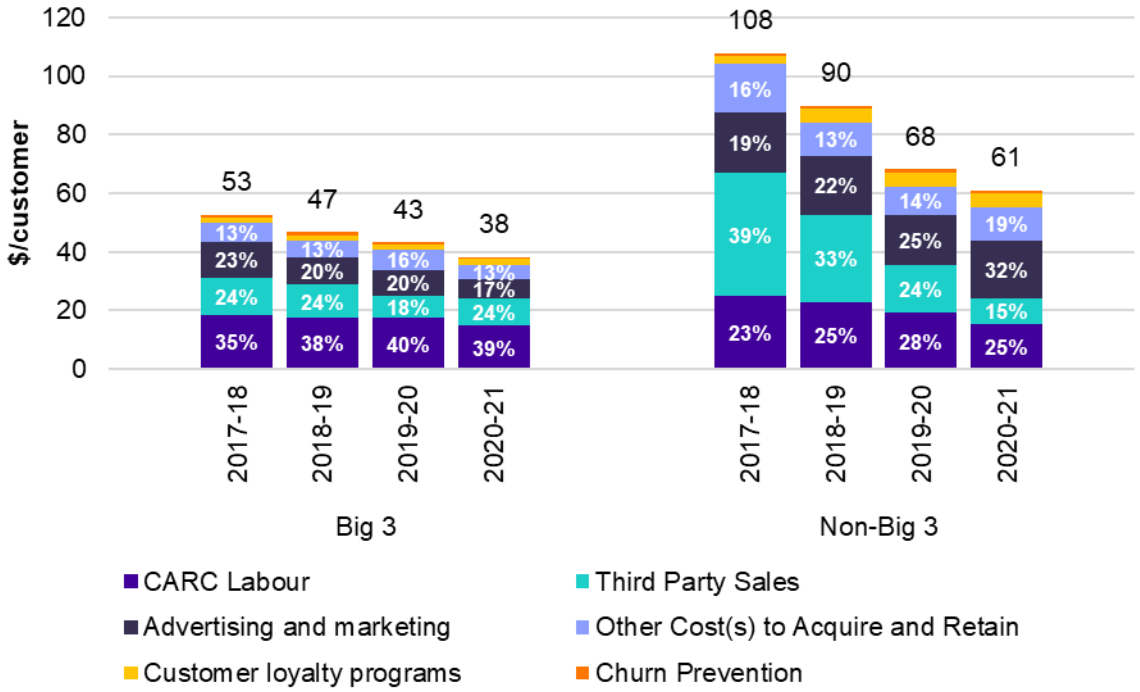
The 'cost to acquire and retain' category includes retailers' expenditure to compete against other firms for customers in the retail market. This includes marketing and advertising, customer loyalty programs and third-party sales.

We can measure these costs on a per customer basis or a per customer acquired basis. The former divides costs in this category across all the retailers' customers. The latter only considers new customers obtained from other retailers in the relevant year.

Figure 4.4 shows cost to acquire and retain per customer has decreased year on year since 2017–18, for both big 3 and non-big 3 retailers. Figure 4.5 shows cost to acquire and retain per acquired customer has increased for non-big 3 retailers over time, while it has decreased for big 3 retailers.

Figure 4.4: Decreasing cost to acquire and retain on a per customer basis

Average Cost to Acquire and Retain per residential customer across the NEM by retailer tier and percentage of residential total, 2017–18 to 2020–21, real $2020–21, excluding GST



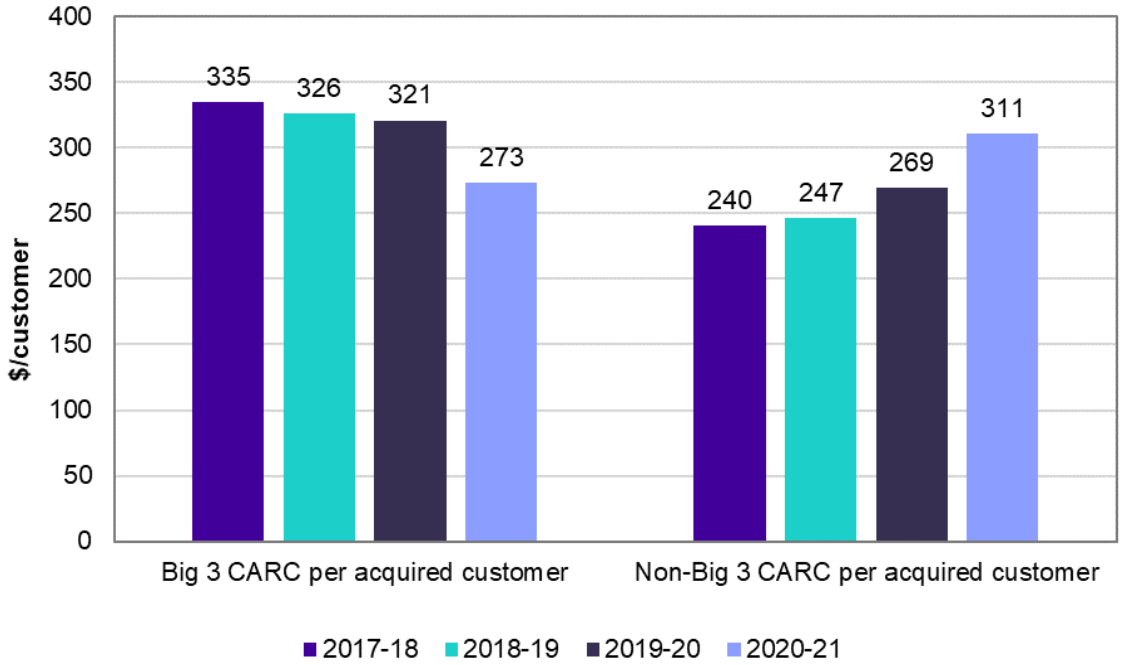
Source: ACCC analysis based on retailers' data.
Note: Data labels for small cost components have been omitted for readability.

[75] Available at www.aer.gov.au/retail-markets/performance-reporting and www.aer.gov.au/retail-markets/performance-reporting/retail-market-covid-19-data-dashboards.

[76] The 2019–20 edition is Australian Energy Regulator, *Annual retail markets report 2019–20*, Commonwealth of Australia, 30 November 2020.

Figure 4.5: However, cost per acquired customer shows a different pattern

Average Cost to Acquire and Retain per acquired residential customer across the NEM by retailer tier, 2017–18 to 2020–21, real $2020–21, excluding GST



Source: ACCC analysis based on retailers' data.

Figure 4.4 shows the cost to acquire and retain per customer has declined since 2017–18 for both groups of retailers. However, the decline is particularly significant for non-big 3 retailers. In percentage terms, this cost for non-big 3 retailers decreased by 44% from 2017–18 to 2020–21. For big 3 retailers, this cost decreased by 27% over the same period.

On the per customer measure (figure 4.4), the gap between big 3 retailers and non-big 3 retailers spending on cost to acquire and retain has significantly narrowed. Non-big 3 retailers' cost to acquire and retain per customer was $55 or 105% more than for big 3 retailers in 2017–18, but this became $23 or 59% more in 2020–21. This may reflect increasing scale for non-big 3 retailers.

In figure 4.5, on the per acquired customer measure, non-big 3 retailers spent more on average to gain a new customer – at $311 per residential customer gained compared to the $273 spent by big 3 retailers. Cost to acquire and retain per acquired customer has been trending in opposite directions from 2017–18 to 2020–21.

In our November 2019 report, we noted that big 3 retailers' cost to acquire and retain per acquired customer was higher than non-big 3 retailers. One explanation was that big 3 retailers had to invest heavily in retaining their large customer bases, rather than acquiring new ones, so they performed poorly on this metric. The reversal in 2020–21 could mean that non-big 3 retailers had refocused their activities towards retention, perhaps in response to the pandemic. It could also be that pandemic related restrictions reduced the efficacy of acquisition pathways previously used by the non-big 3 retailers.

To further examine this issue, the proportion of expenditure in several cost to acquire and retain categories is also shown in figure 4.4.

Decline in non-big 3 retailer third party sales

Third party sales represent payments made by the retailer to third parties who facilitate the sale of products and/or services to potential and existing customers. This includes commissions paid to operators of third-party comparator websites and door-to-door marketing.

The share of big 3 retailers' spending on third party sales has been relatively stable year on year from 2017–18 at 24%, except for a one year decrease in 2019–20 to 18%. This coincides with the onset of the COVID-19 pandemic. In the context of the overall declining expenditure on cost to acquire and retain (figure 4.4), big 3 retailers were spending less on this category in 2020–21 than in 2017–18.

In comparison, the non-big 3 retailers have more than halved their share of expenditure on third party sales, from a high of 39% in 2017–18 to only 15% in 2020–21. At the same time their share of advertising and marketing costs has increased from 19% to 32%. However, in dollar per customer terms the cost of advertising and marketing decreased by just $1 from 2017–18 to 2020–21, while third party sales over the same period decreased by around $33. This means that the drop in the total cost to acquire and retain customers shown in figure 4.4 is mainly driven by the falls in third party sales.

It is difficult to conclude definitively what is driving the decrease in third party sales for non-big 3 retailers in 2020–21, as the data we collect does not further disaggregate into subcategories such as costs of third-party comparator websites or door-to-door marketing.

COVID-19 restrictions significantly disrupted door-to-door selling, which in turn would limit any spending on this acquisition channel. It is possible that non-big 3 retailers relied more heavily on door-to-door selling than big 3 retailers prior to the pandemic. While door-to-door selling remains legal in Australia, the big 3 retailers each ceased door-to-door marketing from around 2013 following increasing community and regulatory concern. Between 2012 and 2015, there were several ACCC enforcement action cases against big 3 retailers engaging in door-to-door sales practices.[77] If a significant proportion of non-big 3 retailers' costs for third party sales were on door-to-door sales, this could explain the differential impact over 2019–20 and 2020–21.

It is also possible that non-big 3 retailers have relied less on third-party comparator websites than big 3 retailers in 2020–21. We previously reported that commercial comparator costs have become so high for some retailers that those acquisitions are close to unprofitable unless the customer remains with the retailer for an extended period (and customers acquired through comparators tend to switch regularly).[78] High costs for third-party comparator sites may contribute to the declining trend of third-party sales for non-big 3 retailers.

On 25 May 2021, the Victorian Government announced it would ban electricity and gas retailers from using high pressure sales tactics for energy retail contracts, such as door-to-door sales or cold-calling. This ban will come into effect on 31 December 2021. Additionally, door-to-door sales will be banned for solar businesses, under the Solar Homes Program. This ban came into effect on 1 September 2021.[79] This would likely affect retailers with a large exposure to a Victorian customer base.

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[77] See Australian Competition Consumer Commission, *AGL ordered to pay $1.5 million for illegal door-to-door sales practices* [media release], 21 May 2013; Australian Competition Consumer Commission, *Origin to pay $2 million for unlawful door-to-door sales tactics* [media release], 30 March 2015.

[78] Australian Competition Consumer Commission, *Retail Electricity Pricing Inquiry - Final report June 2018*, Commonwealth Government, 11 June 2018, p 231.

[79] Premier of Victoria May 2021, *New Rules For Energy Retailers to Protect Households* [media release], 25 May 2021, accessed 16 November 2021.

Greater spending on customer loyalty programs for big 3 and non-big 3 retailers

Customer loyalty program costs refers to spending by retailers to run rewards programs targeted at their customers. The definition for this report excludes bill credits or discounts, so our focus in this section is on non-price product add-ons.[80]

We observe an increasing trend in the share of total costs to acquire and retain customers spent on customer loyalty programs. For big 3 retailers, customer loyalty activities comprised 3% of cost to acquire and retain in 2017–18 and then 5% in 2020–21. Non-big 3 retailers spent 2% in 2017–18, increasing to 7% in 2020–21 (figure 4.4).

The Australian Energy Market Commission identified in 2019 that retailers are increasingly diversifying their offerings through value-add enticements to compete for customers.[81] For example, both the big 3 and non-big 3 retailers provided items such as mobile phone apps, grocery reward program points, movie ticket deals and carbon offsets for electricity use. These benefits can also be provided through the retailer's rewards program.

The Australian Energy Market Commission noted further in 2020 that retailers continued to innovate on customer loyalty, bundling energy offers with food delivery or streaming services.[82] The Australian Energy Regulator also made a similar observation, adding that retailers are increasingly offering products or services alongside electricity and gas appealing to customers looking for the convenience of a single service provider. [83] This includes offering internet and phone services, as well as solar panel and battery products.

Retailers shared in their interviews with the Australian Energy Market Commission that they would expect use of rewards programs to increase over time. This is because decreased price dispersion between offers under price regulation and restriction in advertising practices meant it would be more important and relatively easier to attract customers through non-price means.

The non-price competition reflects retailers targeting consumers with specified preferences, appealing to consumers' need for convenience and generally promoting a culture of retailer membership. The larger increase in non-big 3 retailer proportionate spending on customer loyalty programs compared to big 3 retailers indicates that the former may be expanding on both their customer acquisition and retention activities through non-price competition relative to previous financial years.

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80 See appendix C for definitions of our data fields.

81 Australian Energy Market Commission, *2019 Retail Energy Competition Review – Final Report*, Australian Energy Market Commission website, 28 June 2019, p 92.

82 Australian Energy Market Commission, *2020 Retail Energy Competition Review – Final Report*, Australian Energy Market Commission website, 30 June 2020, p 75.

83 Australian Energy Regulator, *State of the Energy Market 2021*, Commonwealth of Australia, 2 July 2021, p 258.

5. Environmental costs are gradually increasing

Environmental costs make up 10% of the total cost of supplying electricity to an average residential customer (figure 1.1 in section 1). Environmental schemes add to the costs that are shared across all users of electricity from the grid.

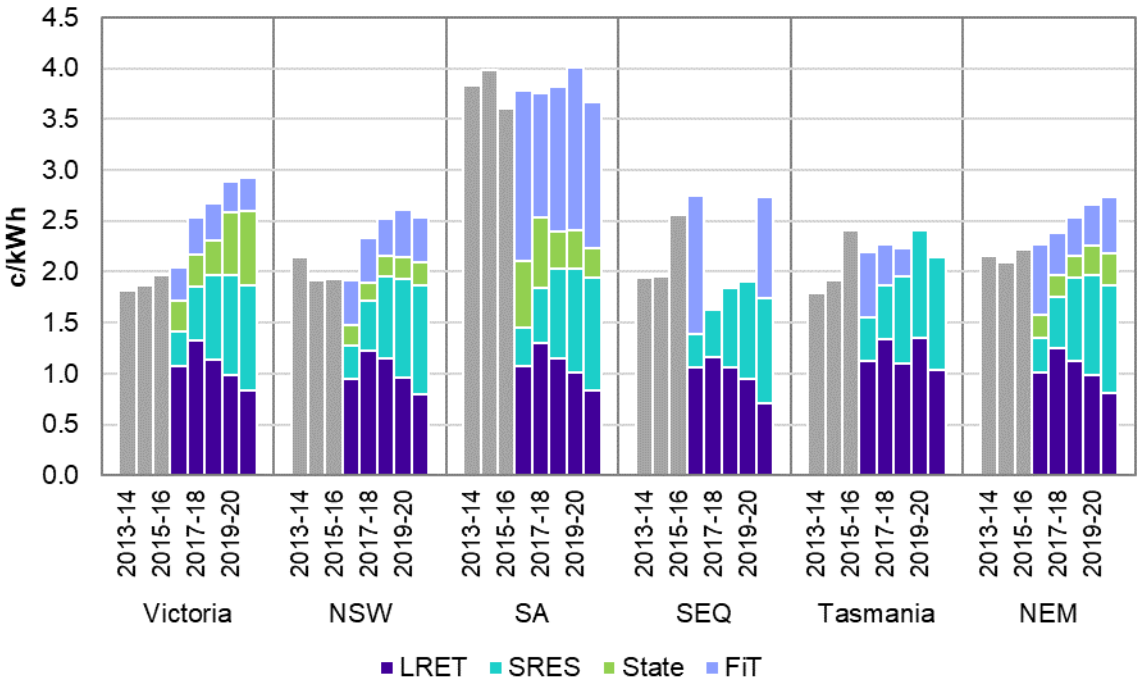
As shown by figure 5.1, since 2016–17 we have broken down environmental costs into 4 categories comprised of national and state schemes.[84] National schemes are the large-scale renewable energy target and the small-scale renewable energy scheme. State schemes are state certificate and energy efficiency schemes, and premium feed-in tariff schemes.

5.1. Increases in environmental costs

Overall environmental costs have increased in the last 2 financial years (figure 5.1). The NEM-wide environmental costs increased from 2018–19 to 2019–20 (by 0.1 c/kWh or 5%), before a smaller increase from 2019–20 to 2020–21 (by 0.08 c/kWh or 3%). This growth is in line with the small but increasing trend over time. Environmental costs were close to zero in 2007–08 and have grown gradually since then (see figure 2.2 and figure 2.3 in section 2).

Figure 5.1: Gradual growth in environmental costs over the years

Average effective price for environmental costs per residential customer by NEM regions, 2013–14 to 2020–21, real $2020–21, excluding GST



Source: ACCC analysis based on retailers' data.
Note: 'FiT' for NSW includes 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. 'FiT' for NSW also includes premium feed-in tariffs in the ACT from 2019–20.

[84] Any cost stack data prior to 2017–18 used in this report was derived from data collected as part of the ACCC's Retail Electricity Pricing Inquiry. Prior to 2016–17 environmental costs were collected but not broken down into the 4 environmental cost categories and so are represented in grey in figure 5.1.

Figure 5.1 shows varying levels of environmental costs across each region broken down into the 4 categories. In particular, changes in premium solar feed-in tariffs vary by region in both magnitude and direction. Premium feed-in tariffs are a legacy of previous state government environmental policies that were historically set at much higher levels.

Environmental costs continue to be more significant in South Australia. This is largely due to feed-in tariffs, which are 39% of the environmental cost component for the average residential customer in South Australia.[85] South Australia has a relatively high proportion of customers with solar panels who receive high rates for exporting electricity into the grid compared with solar customers in other NEM regions.[86]

South-east Queensland previously had lower environmental costs than other regions as the Queensland Government absorbed the costs of the premium feed-in tariff scheme in its budget for 3 years (2017–18, 2018–19 and 2019–20). As this arrangement was not made permanent by the Queensland Government, feed-in tariffs were re-established in 2020–21 as a shared cost across electricity grid users. In 2020–21 feed-in tariffs make up 37% of the environmental cost component for the average residential customer in south-east Queensland.[87] While the premium solar rate is not available to new customers, eligible customers continue to receive these payments until the scheme expires on 30 June 2028.[88] We can therefore expect feed-in tariffs to continue to be a larger portion of environmental costs for south-east Queensland customers if the scheme is not funded through the tax base or other means.

Higher feed-in tariff costs in South Australia and south-east Queensland likely reflect the prevailing conditions for solar generation in these areas of Australia. We previously reported that residential customers in South Australia and south-east Queensland exported higher electricity volumes to the grid than other regions.[89] Solar customers on high legacy rates receive the benefit of premium feed-in tariffs and pay less for electricity, while the cost of funding these schemes are shared across all electricity grid users. This remains a concern as premium legacy rates are effectively subsidised by other electricity customers, meaning that other customers pay more for their electricity to pay for the premium feed-in tariffs.

Feed-in tariffs are no longer an environmental cost for customers in Tasmania in 2020–21 since premium feed-in tariffs were removed in January 2020.[90] In New South Wales, the premium solar feed-in tariff closed to customers in April 2011 and ended in 2016.[91]

Figure 5.1 also shows that Victorian state scheme costs increased in 2019–20 from the previous year (by 0.27 c/kWh) and then by a smaller amount in 2020–21 (by 0.1 c/kWh). Victoria's state scheme costs across both years are likely due to the Victorian Energy Upgrades program (previously called the Victorian Energy Efficient Target). The Victorian scheme legislates a renewable energy target and electricity retailers are required to meet this target by buying Victorian energy efficiency certificates. The number of certificates a

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85 See supplementary tables E7.1 A and E7.1 E in appendix E.

86 Australian Competition and Consumer Commission, *Inquiry into the National Electricity Market – November 2019 report*, Commonwealth of Australia, 22 December 2019, p 66; Australian Competition and Consumer Commission, *Inquiry into the National Electricity Market – May 2021 report*, Commonwealth of Australia, 24 June 2021, p 34.

87 See supplementary tables E7.1 A and E7.1 E in appendix E.

88 Queensland Government, *Solar Bonus Scheme 44c feed-in tariff: How to maintain your eligibility*, Queensland Government website, last updated 6 March 2018, accessed 16 November 2021.

89 Australian Competition and Consumer Commission, *Inquiry into the National Electricity Market – May 2021 report*, Commonwealth of Australia, 24 June 2021, p 36.

90 Tasmanian Government, *A fair and equitable solar tariff system* [media release], Tasmanian Government website, 21 November 2018, accessed 16 November 2021.

91 The feed-in tariff component in New South Wales includes payments to the climate change fund, which are recovered through network charges like the costs of premium feed-in tariffs are in other regions. For consistency with previously reported figures, we have treated this variable the same as previous years. For further information on our methodology refer to appendix B.

party can create is based on the emission reductions from when households or businesses purchase energy-efficient products or services.[92] The price of these certificates, traded through the market, determines how much a retailer will pay to comply with the Victorian state scheme.

The 2020–21 Victorian state budget provided further funding for the Victorian Energy Upgrades program and the program was expanded in 2020 to include further activities, such as installing space heating, water heating, pool pumps and energy efficient shower roses.[93]

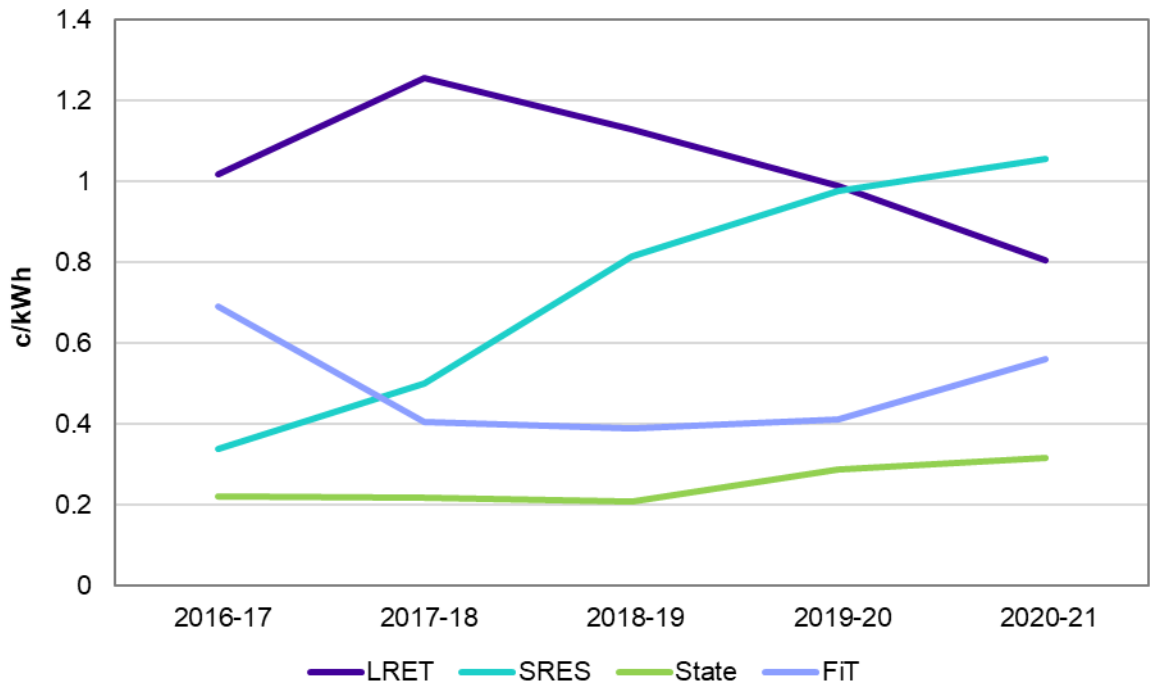
State scheme costs have remained relatively stable over the last 2 years for the other relevant regions.[94]

5.2. Small-scale renewable energy scheme driving environmental cost increases

The increases in environmental costs in the last 2 financial years is primarily driven by growing costs related to the small-scale renewable energy scheme, which has increased year on year from 2016–17 for every NEM region (see figure 5.1). This outweighs the cost reductions in the large-scale renewable energy target over the last 3 years (figure 5.2).

Figure 5.2: Increasing costs for the small-scale renewable scheme

Average effective price of each environmental cost component per residential customer across the NEM, 2016–17 to 2020–21, real $2020–21, excluding GST



Source: ACCC analysis based on retailers' data.
Note: 'FiT' for NSW includes 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. 'FiT' for NSW also includes premium feed-in tariffs in the ACT from 2019–20.

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92 Essential Services Commission, *Victorian Energy Efficiency Certificates* , Victorian Government website, 2021, accessed 16 November 2021.

93 Victorian Government, *About Victorian Energy Upgrades program*, Victorian Government website, 16 June 2021, accessed 16 November 2021.

94 Retailers in New South Wales, South Australia and the Australian Capital Territory are also required to comply with a number of state energy efficiency schemes.

The cost of the large-scale renewable energy target continues to decline while the cost of the small-scale renewable energy scheme continues to increase year on year (figure 5.2). This true for each NEM region (figure 5.1).

The NEM-wide cost for the small-scale renewable energy scheme increased by 0.16 c/kWh or 20% in 2019–20 from 2018–19, and by 0.08 c/kWh or 8% in 2020–21 from 2019–20. By comparison, the cost for the large-scale renewable energy target decreased by 0.14 c/kWh or 12% from 2018–19 to 2019–20, before a larger decrease of 0.18 c/kWh or 19% from 2019–20 to 2020–21.

The small-scale renewable energy scheme is now the largest component of environmental costs in each NEM region, except in South Australia where it is the feed-in tariff component (figure 5.1). The increasing costs of the small-scale renewable energy scheme reflect the record uptake of rooftop solar over the last 2 years driven by cheaper installation costs and the availability of government rebates and subsidies.[95]

The small-scale renewable energy scheme encourages small-scale installations such as household solar panels and solar hot water systems. This is achieved through a renewable energy target that is set each year and the requirement for retailers to buy certificates created by these small-scale installations. It operates until 2030. All eligible installations can receive certificates under the small-scale renewable energy scheme, meaning state schemes encouraging small-scale installations increase the cost of the small-scale renewable energy scheme.

As shown by figure 5.2, the costs of the large-scale renewable energy target have continued to decline on a per-kilowatt basis since it peaked in 2017–18. The large-scale renewable energy target encourages investment in large-scale renewable generation by creating a market for large-scale generation certificates. Retailers must purchase these certificates from renewable generators and then surrender them to the Clean Energy Regulator. The capacity target (33,000 GWh of renewable electricity generation) was met in September 2019. The scheme operates until 2030 and retailers must continue to purchase large-scale generation certificates in accordance with yearly targets.[96] The costs for the large-scale renewable energy target should continue to trend downwards as the target to 2030 remains stable and new large-scale renewable generation continues to enter the market. The Clean Energy Regulator forecasts a gradual downward trend in the price of large-scale generation certificates for the next 3 years.[97]

Market trading of certificates is a key mechanism for both the small-scale renewable energy scheme and the large-scale renewable energy target. Retailers' future costs will be driven by the balance of supply and demand in these markets.[98] The Australian Energy Regulator forecast outcomes for both these elements as part of its recent determination of the 2021–22 Default Market Offer.[99] It expected a continuation of recent trends based on consultant modelling:

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95 For example, in Victoria there are rebates valued up to $1850 offered for homeowners to install a solar PV system. See Victorian Government, *Solar panel (PV) rebate*, 8 October 2021, accessed 16 November 2021. In South Australia there are subsidies and loans valued up to $3000 offered to households to install home battery systems. See South Australian Government, *About the home battery scheme*, 2021, accessed 16 November 2021.

96 Clean Energy Regulator, *2020 Large-scale Renewable Energy Target capacity achieved*, Clean Energy Regulator website, 4 September 2019, accessed 16 November 2021.

97 Clean Energy Regulator, *Quarterly Carbon Market report, June quarter 2021*, 13 September 2021, p 30, accessed 16 November 2021.

98 For a summary of current market conditions see Clean Energy Regulator, *Quarterly Carbon Market report, June quarter 2021*, 13 September 2021.

99 Australian Energy Regulator, *Final determination - Default market offer prices 2021–22*, Commonwealth of Australia, 27 April 2021, pp 26, 32–36, accessed 16 November 2021.

- Increases in the costs of the small-scale renewable energy scheme by 0.22 c/kWh or 24% from 2020–21 to 2021–22.
- Decreases in the costs of the large-scale renewable energy target by 0.07 c/kWh or 15% from 2020–21 to 2021–22. [100]

The increase in small-scale renewable energy scheme costs would cause overall environmental costs to increase, outweighing the decrease in large-scale renewable energy target costs. Beyond this short-term forecast, we expect the feed-in tariff component of environmental costs will continue to decline across NEM regions following the expiration of schemes over the next few years.[101]

[100] Australian Energy Regulator, *Final determination - Default market offer prices 2021–22*, Commonwealth of Australia, 27 April 2021, pp 26, 32–36, accessed 16 November 2021; ACIL Allen, *Default market offer 2021-22 – Wholesale energy and environmental cost estimates for DMO 3 final determination*, 19 April 2021, pp 65–67, accessed 16 November 2021.

[101] South Australia and south-east Queensland premium feed-in tariff schemes will expire in 2028, Victorian premium feed-in tariff scheme will expire in 2024, and New South Wales and Tasmanian premium feed-in tariff schemes have already expired.

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 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 customers, small business customers and large business customers.

Data collection

The ACCC used its compulsory information gathering powers to obtain cost stack data relating to the 2020–21 financial year from 15 current NEM electricity retailers. These retailers provided electricity to about 87% of residential customers and about 80% of small and medium enterprise customers across the NEM in 2020-21.[102]

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). In general, data in relation to residential customers was more complete, but we have been able to draw some findings in relation to business customers. The data appendix accompanying this report includes region-level analysis of small business cost stacks for the first time.

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 now included in New South Wales and NEM-wide data from 2019–20 onwards.

[102] Australian Energy Regulator, *Retail energy market performance update for Quarter 3, 2020-21*, Commonwealth of Australia, 30 June 2021; and Essential Services Commission, *Victorian Energy Market Report 2019-20*, Victorian Government, 30 November 2020. Our data collection for 2020–21 and 2019–20 covers a smaller share of customers across the NEM than previously because we no longer collect data for customers in regional Queensland. Previous reports did not publish results for regional Queensland because of data quality issues.

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 expectations based on customer numbers reported by the Australian Energy Regulator and the Essential Services Commission of Victoria[103]
- 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.

Analytical methodology

For our cost stack analysis, we used retailer EBITDA, cost and usage data to obtain measures of the total cost stacks for retailers.

As set out in box 1.2 of the report:

- A 'dollar per customer' measure was calculated by dividing EBITDA 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 EBITDA 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 take into account 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.

Our measure of the average customer refers to the mean rather than the median or 'typical' customer used in some other studies. The distribution of residential electricity usage is positively skewed – that is, the average customer uses more than the 'typical customer'. This is a result of a small number of customers with much higher than average electricity usage. Accordingly, some of the cost stacks presented our analysis may be higher than some results in other studies.

Unless otherwise stated, we have presented real (inflation adjusted) numbers in this report, in 2020–21 dollars. NEM-wide charts are volume-weighted by usage or customer numbers as relevant. Goods and services tax is not included in the charts presented.

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[103] Australian Energy Regulator, *Retail energy market performance update for Quarter 3, 2020-21*, Commonwealth of Australia, 30 June 2021; and Essential Services Commission, *Victorian Energy Market Report 2019-20*, Victorian Government, 30 November 2020.

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.

Appendix C: Cost stack data definitions

The table below describes the underlying definitions for each cost stack quantity and data field that retailers were required to provide in their response to our information request.

Data	Description
Advertising and marketing	the costs incurred by a company to advertise its brand, products and/or services to acquire new customers and retain existing customers, including associated marketing costs (but excluding any of a company's associated labour costs, which should instead be included in 'CARC Labour') (note that costs associated with 'Churn Prevention' are to be separately reported as defined below)
AEMO Fees	all fees and rates payable by a company to the Australian Energy Market Operator to engage in business activities in the NEM
Bad Debts	the amount of uncollectible accounts receivable from customers
Billing	the costs incurred by a company to prepare and send invoices to customers and receive payments from customers (excluding any of the company's associated labour costs, which should instead be included in 'CTS Labour')
CARC Labour	the labour costs (e.g. payroll costs and contractor costs) incurred by a company to acquire and retain customers, excluding any of a company's labour costs that are included in 'Churn Prevention' and/or 'Onboarding'
Churn	retail electricity customers switching from one electricity retailer to another, excluding customers disconnected by a company who subsequently switched to another retailer
Churn Prevention	the costs incurred by a company in seeking to prevent customers from switching from the company to another retailer after the company has received notification of an intended switch (including any of the company's associated labour costs) (note that costs associated with 'Advertising and marketing' are to be separately reported as defined above)
Cost to Acquire and Retain	the costs incurred by a company to acquire and retain customers
Cost to Serve	the costs incurred by a company to serve customers
CTS Labour	the labour costs (e.g. payroll costs and contractor costs) incurred by a company to serve customers, excluding any of the company's associated labour costs that are included in 'Hardship'
Customer loyalty programs	the costs incurred by a company to run reward programs targeted at customers (excluding any of the company's associated labour costs, which should instead be included in 'CARC Labour') (note that bill credits or discounts should be excluded)
Customer research	the costs incurred by a company to investigate methods to acquire and retain customers (excluding any of the company's associated labour costs, which should instead be included in 'CARC Labour')

Data	Description
Customer service and IT	the costs incurred by a company in serving customers, including the costs associated with maintaining the company's information technology systems (but excluding any of the company's associated labour costs, which should instead be included in 'CTS Labour')
Debt collection	the costs incurred by a company to facilitate the collection of overdue payments from customers (excluding any of the company's associated labour costs, which should instead be included in 'CTS Labour') (note that the quantum of 'Bad Debts' is to be separately reported as defined above)
Discount	a discount that a customer receives on the amount a company charges the customer for the supply of electricity
Distribution Supply Charge	the fixed Distribution Use of System component charged to a company to distribute electricity to its customers through a distribution network in the NEM area
Distribution Usage Charge	the variable Distribution Use of System component charged to a company according to the amount of electricity distributed to its customers through a distribution network in the NEM area
Distribution Use of System	a service provided to a company for use of a distribution network for the conveyance of electricity to its customers that can be reasonably allocated on a locational and/or voltage basis
Dual Fuel Customer	a customer who also acquires gas from a company
EBITDA	earnings before interest, taxes, depreciation and amortisation
Electricity Lost	energy lost due to electrical resistance and the heating of conductors as electricity flows through the transmission and distribution networks
Feed-in Tariff (FiT)	a payment to a customer for electricity fed into the supply grid by that customer (note that unless stated otherwise, Feed-in Tariff includes Negotiated Feed-in Tariff and Premium Feed-in Tariff)
FiTs credited to Negotiated FiT Customers	the total Negotiated Feed-in Tariff
FiTs credited to Premium FiT Customers	the total Premium Feed-in Tariff
FiT Scheme	Negotiated Feed-in Tariff and Premium Feed-in Tariff
Gross Margin	revenue less cost of goods sold
Hardship	the costs incurred by a company to serve Hardship Customers (including any of the company's associated labour costs) (note that Hardship Credits are to be separately reported as defined below)
Hardship Credits	any debt waivers, payment matching, Discounts or bill credits applied to Hardship Customer accounts in accordance with a company's customer hardship policy

Data	Description
	(note that any debt waivers, payment matching, Discounts or bill credits that are unrelated to a customer's status as a Hardship Customer should be excluded)
Hardship Customer	a customer of a company who is identified as a customer experiencing financial payment difficulties due to hardship in accordance with the company's customer hardship policy
Hedging Instrument	an electricity derivative product used by the company to manage forward price risk in the Spot Market
Information Technology	the use of electronic data technology (especially computers and telecommunications) for storing, retrieving, and sending information
Jurisdictional Scheme	one or more of the following jurisdictional schemes (as applicable): Victorian Energy Efficiency Target, New South Wales Energy Savings Scheme, Australian Capital Territory Energy efficiency improvement scheme, South Australian Retail Energy Efficiency Scheme and/or other state or territory based environmental scheme(s) in the NEM Area, but excluding any Feed-in Tariff Scheme
LRET	Large-scale Renewable Energy Target
Meter	a device which measures and records the consumption of electricity for the purpose of measuring customer consumption
Metering Charge	means the expense to a company for the charge associated with maintaining the Meter and measuring and recording the consumption of electricity by a customer
National Electricity Market	the wholesale electricity market operated by the Australian Energy Market Operator across the NEM Area
National Scheme	means Large-scale Renewable Energy Target (or originally known as the Mandatory Renewable Energy Target), Small-scale Renewable Energy Scheme and/or other national environmental scheme(s)
Negotiated FiT	'Negotiated Feed-in Tariff', being a payment from a company to a customer for electricity fed into the supply grid by that customer, where the cost of the tariff is paid directly by the retailer and not as a pass through from another entity
NEM Area	Queensland, New South Wales, the Australian Capital Territory, Victoria, South Australia and Tasmania
NEM State	Queensland, New South Wales (incorporating the geographical area that is the Australian Capital Territory), Victoria, South Australia and Tasmania
Network Supply Charge	the aggregate of the Distribution Supply Charge and the Transmission Supply Charge
Network Usage Charge	the aggregate of the Distribution Usage Charge and the Transmission Usage Charge
Non-Solar Customer	a customer other than a Solar Customer
Onboarding	the costs incurred by a company to add prospective customers to the company's customer base, including any of the company's

Data	Description
	associated labour costs (note that costs associated with 'Third party sales' are to be separately reported as defined below)
Premium FiT	'Premium Feed-in Tariff', being a payment to a customer for electricity fed into the supply grid by that customer where the cost of the tariff is paid by the distribution network to the retailer
Retail Business	the division(s) of a company's business responsible for the retail sale of electricity
Revenue Received	revenue received from customers for retail electricity supplied in the financial year on an accrual accounting basis (unless otherwise specified) (note: this revenue is net of Discounts and Negotiated Feed-in Tariffs, but not net of Premium Feed-in Tariffs)
Shared Costs	shared expenses incurred by a company associated with the activities of two or more divisions of the company including the Retail Business, excluding depreciation, amortisation, interest costs and tax.
Solar Customer	a customer who has entered into a contract with a company to receive a Feed-in Tariff in respect of a solar panel system
Spot Market	the five-minute clearing market for the NEM operated by the Australian Energy Market Operator
SRES	the 'Small-scale Renewable Energy Scheme'
Third party sales	the payments made by a company to third parties who facilitate the sales of the company's products and/or services to potential customers and existing customers (e.g. commissions paid to operators of third party comparator websites)
Transfer Price	the price paid by a company's Retail Business to the company's Wholesale Business in relation to the purchase of electricity
Transmission Supply Charge	means the fixed Transmission Use of System component charged to a company according to the amount of electricity transmitted through the transmission network in the NEM Area
Transmission Usage Charge	means the variable Transmission Use of System component charged to a company according to the amount of electricity transmitted through the transmission network in the NEM Area
TUoS	'Transmission Use of System', being a service provided to a company for use of the transmission network for the conveyance of electricity
Wholesale Business	the division(s) of a company's business responsible, inter alia, for selling wholesale electricity to the company's Retail Business