



Inquiry into the National Electricity Market

May 2021 Report

27 May 2021



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

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Abbreviations

| | |
|----------------------------|---|
| ABS | Australian Bureau of Statistics |
| ACCC | Australian Competition and Consumer Commission |
| c/kWh | cents per kilowatt hour |
| COVID-19 | Coronavirus disease (COVID-19) caused by the virus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) |
| Energy Retail Code (Vic) | a mandatory code established and maintained by the Essential Services Commission of Victoria |
| kWh | kilowatt hour |
| MW | megawatt |
| National Energy Retail Law | National Energy Retail Law—a schedule to the <i>National Energy Retail Law (South Australia) Act 2011</i> |

Key messages



Wholesale electricity prices have fallen significantly (spot prices down 50% since early 2020) and this reduction must flow through to future customer bills. We will continue our active compliance monitoring, and enforcement, of the *Prohibiting Energy Market Misconduct Act* to ensure this occurs. There is \$900m in electricity bill savings from a year ago available in current market offers.



COVID-19 changed electricity usage patterns and bills in 2020. For residential customers, usage went up 10% and bills went up 7% from the previous year. For small business customers, usage went down 17% and bills went down 16%.



Market offers remain cheaper than standing offers, with potential annual savings of almost \$200 for households and \$350 for small businesses. The proportion of residential customers on standing offers is 7% and for small businesses is 16%, as at 2020 quarter 3.



The median effective price for all residential customers was 26.5 c/kWh, down 4.8% from 2019 to 2020. The median effective price for all small business customers was 34.0 c/kWh, broadly stable from the previous year.



Customers on solar tariffs pay lower effective prices (29% less for residential, 31% less for small business) and receive substantial rebates from exporting electricity generated from their solar panels into the national grid, particularly those on historical premium feed-in tariffs.



Hardship and payment plan customers have the highest usage, lowest rates of solar panels, and highest bills overall. Payment plan customers pay higher effective prices and are more likely to be on standing offers than hardship customers.



The Default Market Offer and Victorian Default Offer are protecting standing offer customers from the highest rates, and do not appear to have had adverse effects on market offer rates. In 2019–20, the changes in effective prices were broadly reflective of changes in input costs—that is, wholesale, network and environmental costs.

Executive summary

The COVID-19 pandemic affected all aspects of society in 2020, and electricity consumption and expenses were no exception. Residential consumers' electricity use and therefore bills increased significantly; whereas small businesses were severely disrupted and their use fell. Our measure of effective price, which is total bill divided by usage, was affected by these significant changes in usage, and continued to decline for residential customers, while increasing slightly for small business customers.

There remain significant savings available for those on standing offers if they switch to a market offer. This is particularly relevant for small businesses, a significant proportion of which continue to be on standing offers.

Unique insight into electricity bills

The Australian Competition and Consumer Commission (ACCC) has extended its unique dataset of electricity retailers' billing data. This data—that is, information on customer types, tariff types, electricity provided, bills and rebates—allows us to directly assess the electricity prices faced by customers. This type of analysis complements other streams of our work—on the retailers' costs of supplying electricity and offers available in the electricity market.

We used our compulsory information gathering powers to obtain billing data from electricity retailers for 2020, adding it to the dataset we established the previous year. The dataset contains over 13 million bills from 11 retailers who together supply the majority of electricity customers across New South Wales, South Australia, south-east Queensland and Victoria.

COVID-19 changes usage patterns and bills—up for residential, down for small business

As with most aspects of society in 2020, the impact of the COVID-19 pandemic is the dominant theme revealed in the data. There were very different impacts for residential customers and small business customers.

Residential customers, who spent more time at home in response to the pandemic, increased their electricity use. With increased usage, residential electricity bills increased. Overall, residential customers used 10% more electricity in 2020 and their bills increased by 7%. We observe this pattern of increased residential usage and bills across almost all regions and customer types.

However, small business customers used less electricity. This reflected government restrictions, reduced onsite business activity and staff shifting to working from home. With decreased usage (by 17% overall), small business electricity bills decreased (by 16% overall). We find a widespread pattern of decreased small business electricity use, but there were exceptions in some areas.

The increase in residential electricity bills was problematic for many households because it compounded the adverse financial effects of the coronavirus restrictions. Ordinarily, a reduction in small business electricity bills would be a positive development. But in the context of the coronavirus recession, where it arises because businesses were reducing their activity or shutting down, this was not a welcome outcome. Regulators, governments and industry took a number of actions in response to COVID-19, helping to partially offset these adverse effects.

Market offers remain the cheaper option

Market offers remain cheaper than standing offers. For residential customers, the median effective price under a standing offer was 18% more expensive than the market offer. For a typical residential customer on a standing offer, this could mean an annual saving of \$199 from switching to a market offer. For a typical small business customer on a standing offer, the median standing offer was 35% more expensive and the annual saving from switching to a market offer was \$349. Shopping around for a better market offer remains key advice for those looking to reduce their electricity bills.

The effective price for all residential customers decreased by 4.8% from 2019 to 2020, with a median effective price of 26.5 c/kWh. The effective price for all small business customers increased by 0.6% from 2019 to 2020, with a median effective price of 34.0 c/kWh.

In previous years, median effective prices paid by market offer customers of the big 3 retailers (AGL, EnergyAustralia and Origin) were more expensive than smaller electricity retailers ('non-big 3 retailers'). This gap narrowed in 2020, and for residential customers, the big 3 retailers had the cheapest median effective prices in most regions. For small business customers on market offers, the non-big 3 retailers still had slightly cheaper median prices in all regions.

The dataset also shows the extent to which customers are switching from standing offers to cheaper market offers. For residential customers, the proportion of customers on standing offers is declining, down to 7% overall. This continues a multi-year trend of gradual decreases.

However, for small business customers, the proportion on standing offers remains steady, and at 16% is more than double the residential proportion. The small business customers still on standing offers have lower median usage than those on market offers. Since the size of any potential saving from switching increases with usage, they may have less incentive to look for a better deal. There are also pockets of higher-than-average use of standing offers for regional residential customers and metropolitan small business customers in NSW.

Regulation is protecting customers

For those customers remaining on standing offers, the introduction of the Default Market Offer and Victorian Default Offer have protected them from the highest prices.¹ The effective prices for standing offers remain below (by 10% for residential, 6% for small business) the standing offer effective prices in 2018, before these regulatory interventions occurred.

The evidence does not suggest that the Default Market Offer and Victorian Default Offer have had adverse effects on market offer rates when examined against aggregate cost movements. In 2019–20, the changes in effective prices for market offer customers were broadly reflective of changes in input costs of wholesale, network and environmental costs. Overall, input costs increased slightly (up 0.6% for residential, 0.5% for small business) and price changes were less for residential (down 0.2%), but slightly more for small business (up 0.7%).

While not reflected in the current dataset, there have been recent material reductions in retail prices. Under the new *Prohibiting Energy Market Misconduct Act* rules enforced by the ACCC, retailers are required to pass on sustained and substantial cost reductions to consumers. Wholesale electricity costs have fallen dramatically over the past year, with spot prices in the wholesale market around 50% lower than in 2019–20. We estimate that \$900 million per year in potential savings is already available to households in eastern and

¹ The Australian Energy Regulator determines the Default Market Offer for all areas of the National Electricity Market except Victoria, where the Victorian state regulator (the Essential Services Commission) sets a Victorian Default Offer instead.

southern states. We expect prices to fall further and will be monitoring to make sure retailers pass on cost savings by reducing their prices.

Solar customers pay less

One of the largest changes in the electricity sector has been the increasing installation of solar panels on homes and small businesses. The billing data shows contrasting outcomes.

Customers on solar tariffs were partly insulated from COVID-related increases in usage. They paid lower effective prices and received material rebates for electricity supplied to the grid. This is particularly the case for customers on premium feed-in tariffs—that is, legacy rates that were historically set at much higher levels. These customers had median annual rebates of \$858 (residential) and \$1,993 (small business) in 2019–20. This remains a concern as these 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.

Compared to those on solar tariffs, residential customers without solar panels paid higher effective prices.² In aggregate, median effective prices for solar residential customers were around 29% lower than prices for non-solar residential customers. The median quarterly bill for a non-solar residential customer was \$347, \$94 above the bill for a solar customer of \$253—despite solar residential customers using more energy from the grid.

For small business customers, median effective prices for solar customers were around 31% lower than non-solar. However, because non-solar small business customers had lower usage than solar customers prior to 2020, and non-solar customers saw greater decreases in electricity use as a result of COVID-19 restrictions, non-solar customer bills were lower than solar bills.

Vulnerable customers still a concern

The data shows how the adverse COVID-19 effects on electricity bills flowed through to customers in financial difficulties. We distinguished four groups of residential customers – hardship, payment plan (each around 2–3% of customers), concession (around 28% of customers), and general (the remaining two-thirds of customers).³ Comparing between these customer categories:

- Customers on hardship programs and payment plans have the lowest rates of solar panels, highest usage, and highest bills overall. In contrast, concession customers have the highest rates of solar take-up, lowest usage, and low bills overall.
- In terms of effective price, payment plan customers paid more than hardship customers (but still less than general customers), which may be because of targeted support to the hardship customers that payment plan customers do not get.
- The proportion of each group on standing offers is highest for general customers, lowest for hardship customers, with concession and payment plan customers in between.
- Conditional discounts are being used less across all residential customer groups. The achievement rate for conditional discounts has gone up, though hardship and payment plan customers remain the worst performing groups on this metric.

² We calculate the effective price net of feed-in tariff payments.

³ These customer groups are explained in more detail in box 1.1 below.

Next steps

The ACCC's inquiry into prices, profits and margins in relation to the supply of electricity in the National Electricity market continues until 2025. The next report is due to the Treasurer in November 2021 and will focus on examining retailers' costs. We intend to continue to extend the billing dataset and report again in May 2022.

1. Introduction

The ACCC is holding a 7-year market monitoring inquiry into prices, profits and margins in relation to the supply of electricity in the National Electricity Market. We report to the Treasurer periodically with findings from the inquiry. We last reported in September 2020, reporting on actual prices paid by consumers between 1 July 2018 and 31 December 2019. At the same time, we also released a supplementary report with initial findings on the impact of COVID-19 across the first half of 2020.

The World Health Organization declared the global COVID-19 pandemic in March 2020. Governments responded with new restrictions that required many of us to stay at home to control the spread of the virus. These restrictions were felt all over the country with the longest lockdowns experienced in Victoria and New South Wales. The impacts of these restrictions were widespread across the economy, affecting the way we lived and worked, and disrupting business and commercial activity. We have observed dramatic changes in the way electricity was used compared to the past in an unprecedented year, where residential consumers were required to stay at home for prolonged periods, many people worked from their homes, and the operations of many businesses were severely disrupted.

The Commonwealth, state and territory governments have supported electricity consumers during the pandemic with a range of measures to supplement people's incomes, and assist with their energy bills. In addition, energy regulators set out expectations for industry to support their customers experiencing difficulty paying their bills, such as allowing customers to defer payment of debt and prohibiting disconnections. The Australian Energy Regulator regulates retail electricity in south-east Queensland, New South Wales, the Australian Capital Territory, Tasmania, and South Australia. The Essential Services Commission regulates retail electricity in Victoria. The regulators' decisions on customer support during COVID-19 remain in place until 30 June 2021. These interim measures afford consumers additional protection from paying off debt when they are in financial difficulty. However, both regulators have noted that the increase in debt is concerning.

The change in patterns of usage for households and businesses has had a clear impact on customer bills and effective prices paid. In our September 2020 report, we established an important set of baselines from over 8 million customer bills from which we will be able to report on trends over the course of the inquiry. In this report, we present findings from an updated customer billing data set of over 13 million customer bills extending through to 31 December 2020. Details of our data collection and analysis methodology are in appendix B.

While this report focuses on customer bills, we continue to examine changes in the wholesale, network, environmental and retail costs of electricity supply. This cost data will be the focus of our next report, due to the Treasurer in November 2021.

Box 1.1: Notes on the ACCC's analytical approach

Below are key notes on our analytical approach that should be kept in mind:

- Results are in real 2020 dollars and do not include goods and services tax.
- Our analysis of customer usage is based on electricity consumed from the grid, and does not include electricity that solar customers have generated for their own use.
- In most cases, we use the median instead of the mean as it shows what the majority tends toward by reducing the impacts of extreme high or low values. In our charts, the median is the white line inside the vertical boxplot, and represents the 50th percentile or middle value of the data. The bottom edge of the boxplot is the 25th percentile, while

the top edge is the 75th percentile. Together, each boxplot shows the interquartile range, and gives an indication of the spread of the data.

- Our analysis of prices paid by customers generally uses effective prices (calculated as bill amount after rebates and concessions have been applied divided by usage) rather than bill amounts. Effective price takes usage into account and shows the underlying rates that customers pay over time and across customer groups. Bill amounts, however, are driven by changes or differences in usage. Given the impact of COVID-19 on customer usage patterns, we have included bill amounts where relevant.

We look at a number of different time periods:

- We analysed customer billing data over the 2018–19 and 2019–20 financial years and over quarterly periods. As retailer billing cycles vary and therefore do not necessarily align with quarterly periods, we applied certain rules to align the data with the relevant periods. For example, if a customer's bill partially overlapped a quarterly period by a certain number of days, we include a proportion of the usage and costs in that bill as part of that quarterly period. We take a different approach with allocating customers into various customer groups. We only assign customers to a particular customer group (e.g. hardship) if all their bills in that quarter had that status.
- We present 2018 quarter 3, 2019 quarter 3 and 2020 quarter 3 results because we do not yet have a complete dataset for 2020 quarter 4. Quarter 3 covers the months of July, August and September. However, wherever possible, we checked preliminary results using the quarter 4 data and found that they were consistent with our findings.

We distinguish between two types of offers:

- Standing offers are the default plans where a customer has not engaged in the market. They are subject to regulated price caps and terms and conditions.
- Market offers are any other plan offered by a retailer. Prices and terms and conditions are set by retailers and plans may feature discounts.

We divide residential customers into a number of groups:

- Concession customers are customers who received an amount funded by a state or territory government that reduced the amount the customer had to pay for electricity. Eligibility for concession status varies by state; in some cases the criteria reflect financial disadvantage but in others there is age-based eligibility (regardless of financial status).
- Hardship customers are customers who participated in a retailer's hardship program. Retailers are required under the National Energy Retail Law to provide programs to assist customers experiencing payment difficulties due to hardship.
- Payment plan customers are customers who had an arrangement with their retailer to pay in instalments due to experiencing financial difficulties. It excludes flexible arrangements for convenience or budgeting reasons.
- 'General' customers are customers who were not in hardship, on a payment plan or received a concession for any part of the relevant period.
- 'All' customers are all customers in the sample within the relevant period. This includes customers who were in hardship, on a payment plan or received a concession for only a portion of the relevant period and so were not counted in any of the other categories.

For more information:

- Details on our data collection and analysis methodology are in appendix B.
- Appendix E contains additional figures that are not presented in the body of the report but are sometimes referred to, such as region by region breakdowns.

2. COVID-19 led to higher use and bills for residential customers and lower use and bills for small businesses

Residential customers used more electricity and faced higher bills, while small business customers used less and faced lower bills due to the COVID-19 pandemic. Targeted support to customers, from regulators, government and industry, alleviated some of the adverse effects of the COVID-19 pandemic on electricity affordability.

The Australian Energy Market Operator estimated the overall grid demand of the National Electricity Market decreased by 313 MW, or 1.4% in 2020 compared to 2019 due to increased solar feed-in supply from solar customers and a decrease in underlying demand from businesses.⁴

2.1. Residential customers used more electricity and small businesses used less

Residential customers used 10% more grid electricity between 2019 and 2020, where the median quarterly usage increased from 1,186 kWh to 1,310 kWh (figure 2.1). In contrast, small business customers overall used 17% less over the same period, a decrease from 1,709 kWh to 1,426 kWh (figure 2.2). These results stem from measures taken by state governments in 2020 to stop the spread of COVID-19 that resulted in residential customers spending more time at home, and small business customers reducing their onsite business activity, or in some cases, closing their businesses.

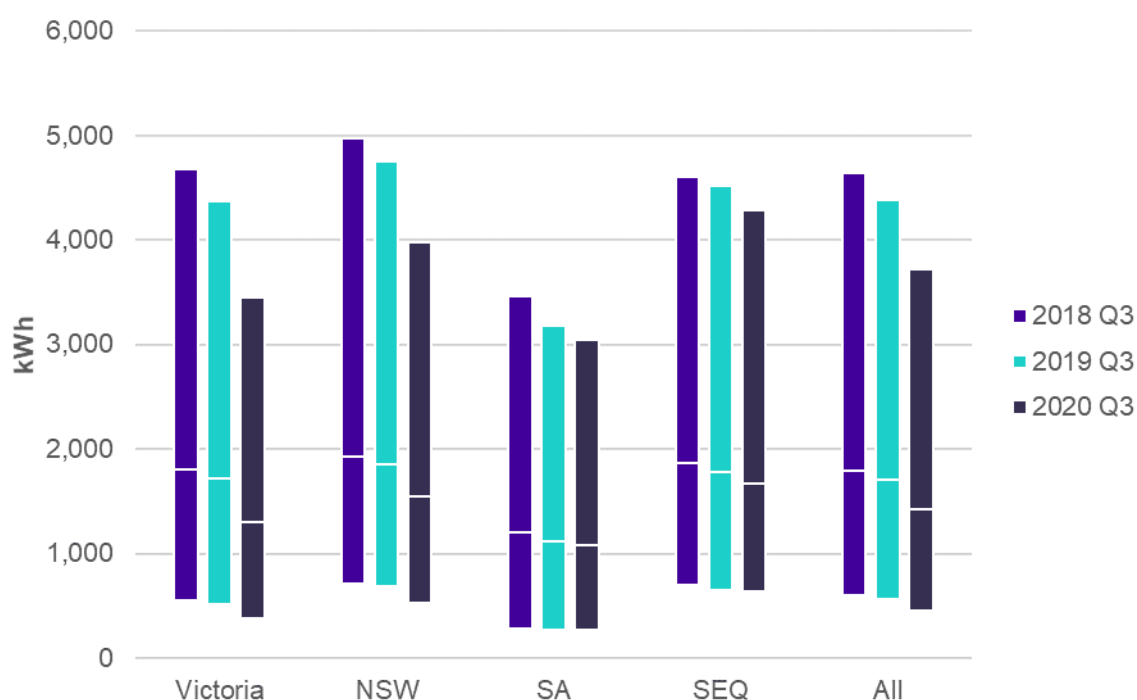
Figure 2.1: Quarterly grid usage by residential customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values.

⁴ Australian Energy Market Operator, [Quarterly Energy Dynamics Q3 2020: Market Insights and WA Market Operations](#), Australian Energy Market Operator, 21 October 2020, accessed 20 April 2021, p 6.

Figure 2.2: Quarterly grid usage by small business customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values.

Regional comparisons show that the median quarterly usage for residential customers increased the most in New South Wales (13%) and Victoria (12%), and the least in South Australia (6%) and south-east Queensland (6%) between 2019 and 2020. For small business customers, median quarterly usage decreased the most in Victoria (25%) and New South Wales (17%), and the least in South Australia (4%) and south-east Queensland (6%).

The length and severity of the lockdown restrictions imposed by state governments in response to the COVID-19 pandemic was likely the key driver behind differences in regional trends. For example, Victoria experienced the second biggest increase in residential customer usage (from 1,069 kWh to 1,201 kWh) and biggest decrease in small business customer usage (from 1,724 kWh to 1,299 kWh) in 2020 quarter 3 compared to 2019 quarter 3. On 2 August 2020, the Victorian Government declared a State of Disaster and introduced stage 4 restrictions.⁵ Stage 4 restrictions severely restricted the movement of people, and required many small business customers to close their businesses such as bars, cafes, restaurants and gyms. The Australian Energy Market Operator estimated that stage 4 restrictions reduced commercial demand for electricity from the grid in Victoria by approximately 15%, and increased residential demand by around 10 to 15%.⁶

The average minimum temperatures in Victoria, New South Wales, South Australia and south-east Queensland were warmer in 2020 quarter 3 compared to 2019 quarter 3, except in Victoria in July 2020, where cooler weather caused some increase in demand.⁷ The warmer climate overall and other general trends identified by the Australian Energy Market Operator would have reduced demand in quarter 3. This supports the view that the COVID-

⁵ Victorian Government, [Premier's statement on changes to Melbourne's restrictions](#), Victorian Government website, 2 August 2020, accessed 20 April 2021.

⁶ Australian Energy Market Operator, [Quarterly Energy Dynamics Q3 2020: Market Insights and WA Market Operations](#), Australian Energy Market Operator, 21 October 2020, accessed 20 April 2021, p 9.

⁷ Australian Energy Market Operator, [Quarterly Energy Dynamics Q3 2020: Market Insights and WA Market Operations](#), Australian Energy Market Operator, 21 October 2020, accessed 20 April 2021, pp 6 and 9.

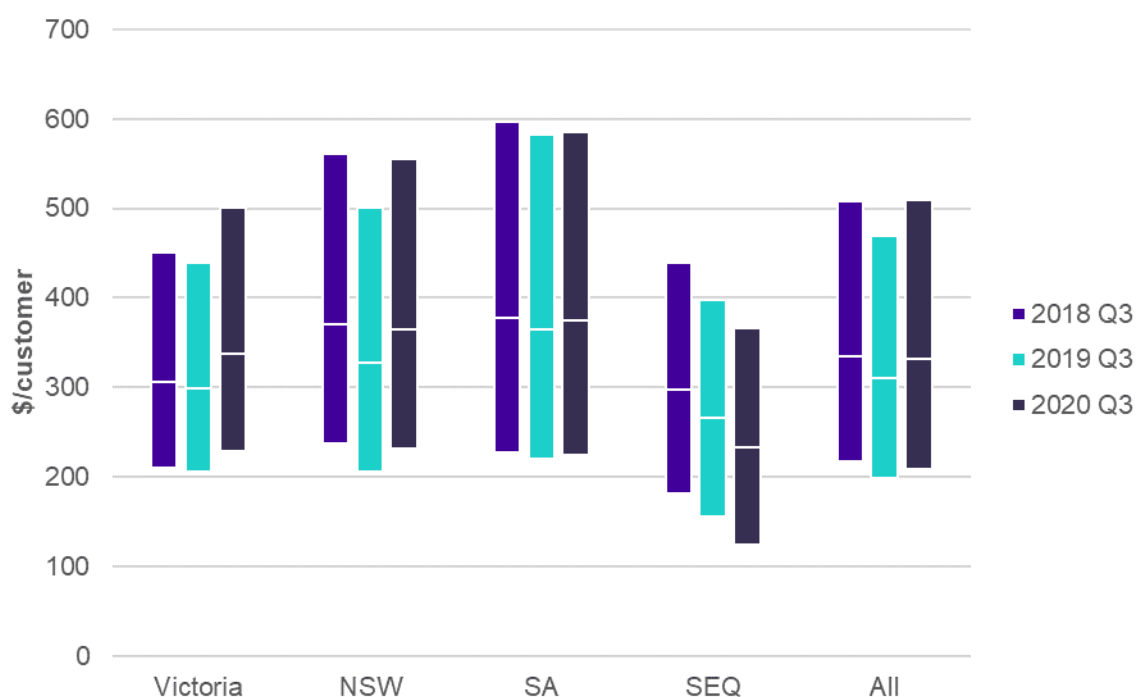
19 pandemic was the main driver for the customer usage trends. The increase in residential customer usage as a result of the COVID-19 pandemic is even more significant given the longer-term trend in prior years of a gradual reduction in grid electricity use, reflecting improved energy efficiency and increased uptake of solar panels.

2.2. Higher bills for households, but measures taken to assist

Residential customers experienced a 7% increase in their median quarterly bill in quarter 3 between 2019 and 2020, from \$310 to \$332 (figure 2.3). The exception was south-east Queensland customers, where the median quarterly bill for south-east Queensland customers actually decreased by 12% (\$33) even though they used 6% more electricity. This was because of the Queensland Government's COVID-19 economic relief package. Through this relief package, more than 2 million households received a \$200 rebate in 2020 for their household utility bills.⁸ Electricity retailers in Queensland applied the rebate as an automatic credit on a customer's electricity bill.

Over the same period, small business customers experienced a 16% decrease in their median quarterly bill, from \$554 to \$467 (figure 2.4). These results reflected the changes in usage trends discussed in section 2.1 above. They also clearly show the monetary impact of the COVID-19 pandemic on residential customers, as they used more electricity from the grid, and faced higher electricity bills. Small business customers meanwhile faced lower electricity bills, but this was because of reduced onsite business activity.

Figure 2.3: Quarterly bills for residential customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values in real 2020 dollars.

⁸ Queensland Government, [COVID-19 household utility relief](#), Queensland Government website, last updated 26 March 2021, accessed 20 April 2021.

Figure 2.4: Quarterly bills for small business customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values in real 2020 dollars.

The median quarterly bill for residential customers increased the most in Victoria (13% or \$40) and New South Wales (11% or \$37), and the least in South Australia (2% or \$9).

The median quarterly bill for small business customers decreased the most in Victoria (19% or \$104) and New South Wales (15% or \$90), and the least in South Australia (8% or \$34). Customers in south-east Queensland experienced a 14% (\$73) decrease in their median quarterly bill even though usage decreased much less compared to Victoria and New South Wales. This was most likely because of the Queensland Government's power bill relief package that targeted eligible small businesses.⁹ The package involved a one-off \$500 rebate that automatically applied to a small business' electricity bill from May 2020 onwards.

Regulators, state governments and industry took a number of actions in response to the COVID-19 pandemic that likely had a positive impact on electricity affordability for those facing financial difficulties. We noted a number of these initial responses in our supplementary September 2020 report.¹⁰ For example, the Australian Energy Regulator published its first Statement of Expectations of energy businesses on 27 March 2020 that strongly discouraged disconnections and referrals to debt collection agencies.¹¹ Following three extensions, the Statement of Expectations is due to end on 30 June 2021. State governments also provided a range of assistance payments for customers, such as the Queensland Government rebates mentioned above. Other state governments also rolled out

⁹ Queensland Government, [Coronavirus \(COVID-19\) electricity relief for small businesses](#), Queensland Government website, last updated 1 May 2020, accessed 20 April 2021.

¹⁰ Australian Competition and Consumer Commission, [Inquiry into the National Electricity Market—supplementary September 2020 report](#), Commonwealth of Australia, 19 October 2020.

¹¹ Australian Energy Regulator, [AER Statement of Expectations of energy businesses: Protecting customers and the energy market during COVID-19](#), Commonwealth of Australia, 27 March 2020, accessed 20 April 2021.

financial assistance, but it was narrower in scope, where it targeted those on lower incomes or who were facing short-term financial difficulties or emergencies.¹²

¹² South Australian Government, [Energy bill concessions](#), South Australian Government website, last updated 3 March 2021, accessed 20 April 2021; Victorian Government, [Helping Victorians Pay Their Power Bills](#), Victorian Government website, 17 November 2020, accessed 20 April 2021; New South Wales Government, [NSW Government bill relief for energy customers](#), New South Wales Government, 27 April 2020, accessed 20 April 2021.

3. Market offers provide better deals for customers

The proportion of residential customers on standing offers continued to decline in 2020, but for small businesses, the proportion on standing offers has remained steadily high. This is a concern because market offers are cheaper than standing offers. Although market offer customers use more electricity than standing offer customers, market offer customers pay cheaper prices at all levels of usage.

The price difference between the big 3 retailers and smaller retailers has narrowed over the last 12 months and in some cases the big 3 prices are cheaper for residential customers, but for small business customers it is generally still cheaper to be with a non-big 3 retailer.

The Default Market Offer and Victorian Default Offer pricing reforms do not appear to have had an adverse effect on market offer prices from our examination of the changes in wholesale, network and environmental costs to supply electricity. We continue to monitor movements in costs and electricity prices as part of our monitoring and compliance role under the Prohibiting Energy Market Misconduct provisions.

3.1. Too many small businesses on standing offers

The proportion of residential customers on standing offers continued to decline in 2020 but the proportion of small business standing offer customers remained steadily high (figure 3.1 and figure 3.2).¹³ Standing offers are plans that customers are placed on by their retailer if they do not, or cannot, access a market offer. These offers were originally intended to provide a safety net to ensure that customers get a basic service at a reasonable price, but over time they became some of the highest priced plans.¹⁴ Following the introduction of the Default Market Offer and Victorian Default Offer price caps, the majority of standing offer customers saw a large reduction in their electricity prices from 1 July 2019 (section 3.2).

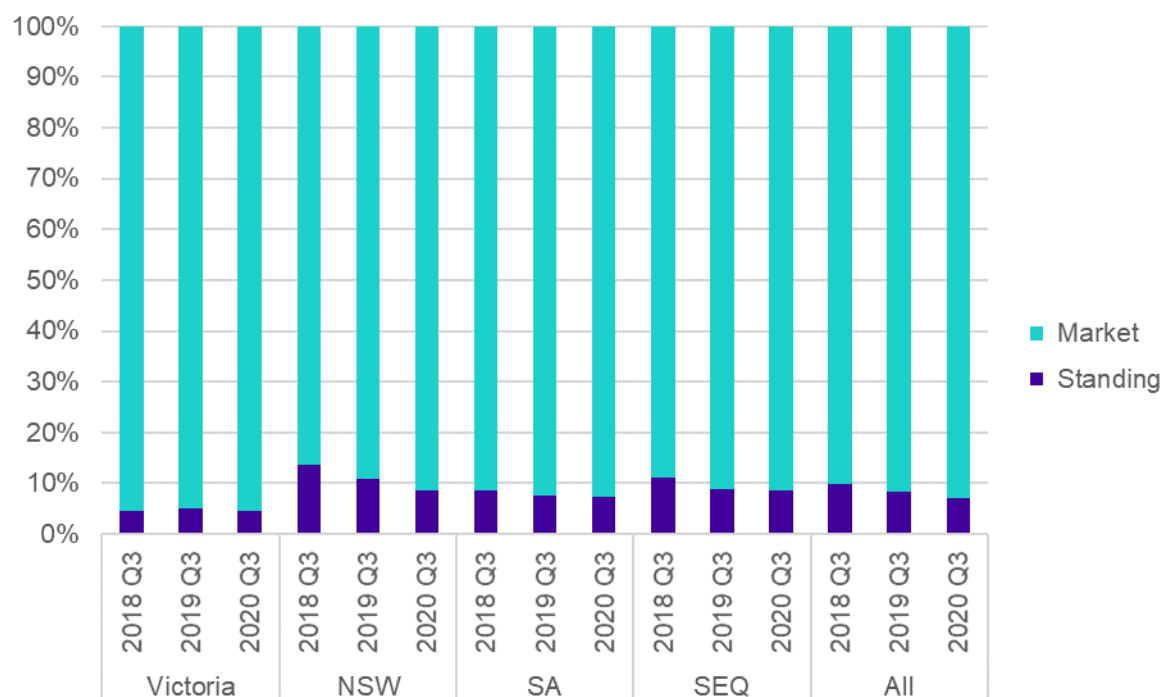
The high and increasing proportion of residential customers on market offers across all four regions is positive given that market offer customers tend to pay lower effective prices than standing offer customers, as discussed in section 3.2. In contrast, the proportion of small business customers on standing offers (16%) was more than double the proportion of residential customers on standing offers (7%). New South Wales had 20% of small business customers on standing offers, which was the highest proportion of all regions.

While the Default Market Offer and Victorian Default Market Offer reforms brought down the cost for customers on standing offers, the ACCC remains concerned about the high proportion of small businesses on standing offers. In 2020 COVID-19 negatively affected many businesses and many still face great uncertainty. It was likely that these challenging circumstances made it difficult for businesses to engage with the retail electricity market. We intend to explore why small businesses continue to be on standing offers at higher proportions than residential customers and how to best get them onto more competitive deals. One factor appears to be that small business customers on standing offers also have lower median usage than those on market offers (section 3.6). Since the size of any potential saving from switching increases with usage, these customers may have less incentive to look for a better deal.

¹³ The proportions of standing offer customers found in our analysis may be different from those published by the Australian Energy Regulator. This is mainly because our data captures customers who were on standing offers over a period of time, while the Australian Energy Regulator uses a point in time measure.

¹⁴ Australian Competition and Consumer Commission, [Restoring electricity affordability and Australia's competitive advantage, Retail Electricity Pricing Inquiry—Final Report](#), Commonwealth of Australia, 11 July 2018, p 241.

Figure 3.1: Proportion of residential customers on market and standing offers



Source: ACCC analysis of retailer billing data. Market offer customers may include some customers who were on a market offer for only part of the period. For further information on methodology, please refer to appendix B.

Figure 3.2: Proportion of small business customers on market and standing offers



Source: ACCC analysis of retailer billing data. Market offer customers may include some customers who were on a market offer for only part of the period. For further information on methodology, please refer to appendix B.

We reported in September 2020 that we would monitor the proportion of standing offer customers in Victoria, as we saw an increase between 2018 and 2019.¹⁵ We raised concerns around whether the lower-priced Victorian Default Offer may lead to reduced customer engagement. In 2020, the proportion of standing offer customers in Victoria decreased by 0.4 percentage points to 4.6%, bringing the proportion back down to 2018 levels. This indicates that customers in Victoria are generally still engaged in the market. Victoria continued to have the lowest proportion of standing offer customers out of the four regions, for both residential and small business customers.

3.2. Market offers are cheaper than standing offers

Market offer customers continued to pay lower prices than standing offer customers in 2020. Residential standing offer customers paid 4.7 c/kWh or 18% more in 2020 than market offer customers. The median effective price was 26.2 c/kWh for market offers and 30.9 c/kWh for standing offer customers (figure 3.3). This difference means a residential standing offer customer using the median annual amount of electricity (4,228 kWh) paid an extra \$199 a year.¹⁶ The effective price for all residential customers decreased by 4.8% from 2019 to 2020, with a median effective price of 26.5 c/kWh.

For small business customers the difference in effective prices was even greater. Standing offer customers paid a median price that was 11.3 c/kWh or 35% more than market offer customers. Small business customers on market offers paid a median effective price of 32.6 c/kWh and standing offer customers paid a median effective price of 43.9 c/kWh (figure 3.4). This difference means a small business standing offer customer using the median annual amount of electricity from the grid (3,086 kWh) paid an extra \$349.¹⁷ The effective price for all small business customers increased by 0.6% from 2019 to 2020, with a median effective price of 34.0 c/kWh.

The introduction of the Default Market Offer and Victorian Default Offer price caps have protected customers on standing offers by bringing those prices down. Between 2018 and 2019 prices for standing offer customers decreased significantly (4.3% for residential and 7.5% for small business) and by a greater amount than for market offer customers. Between 2019 and 2020 the effective price of residential standing offers again declined more than for market offers customers (6.3% for standing offer customers and 4.4% for market offer customers). However, for small business customers between 2019 and 2020 effective prices increased by 0.3% for market offer customers and 1.4% for standing offer customers. These small increases are likely because of large reductions in small business usage in 2020, particularly for standing offer customers (section 3.5).

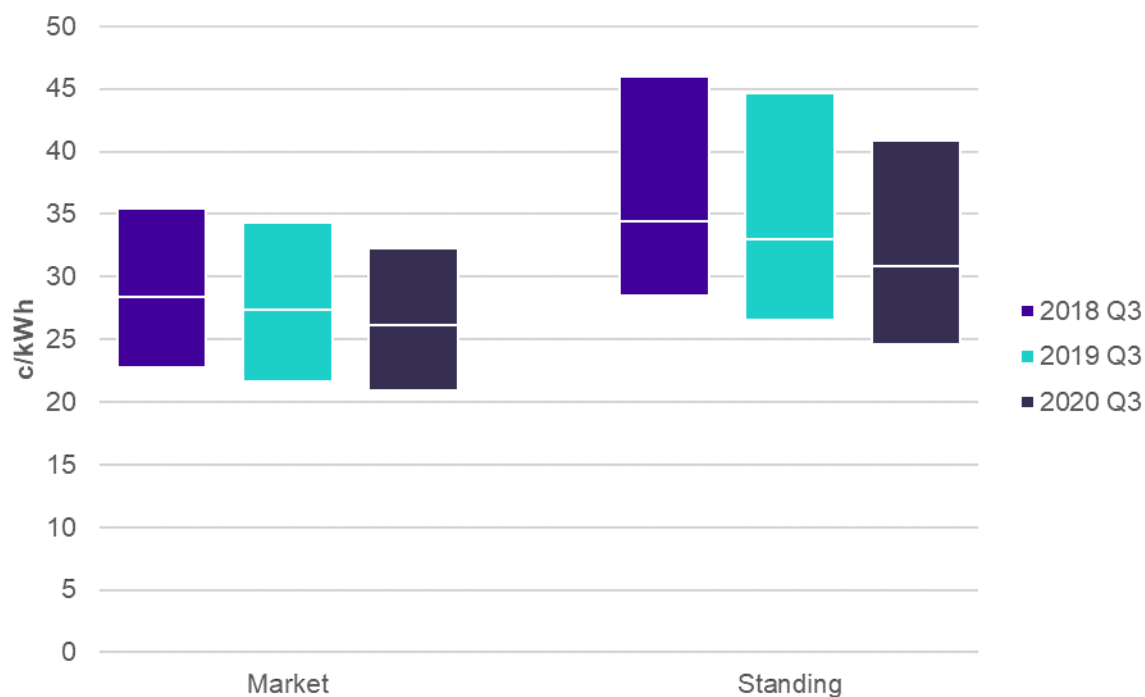
The large interquartile ranges for effective prices that small businesses paid reflect a wide variety of business types and sizes with different energy needs. This is most apparent for small businesses on standing offers. These businesses tend to have lower usage which is spread across the fixed costs of bills, and has a big impact on the effective price.

¹⁵ Australian Competition and Consumer Commission, [Inquiry into the National Electricity Market—September 2020 report](#), Commonwealth of Australia, 19 October 2020, p 44.

¹⁶ Bill savings amounts have been calculated using FY 2020 median usage for standing offer customers and 2020 quarter 3 median effective prices. See figures A1.2 and A3.8 in appendix E.

¹⁷ Bill savings amounts have been calculated using FY 2020 median usage for standing offer customers and 2020 quarter 3 median effective prices. See figures A7.2 and A9.8 in appendix E.

Figure 3.3: Effective prices paid by residential market and standing offer customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values in real 2020 dollars, all regions combined.

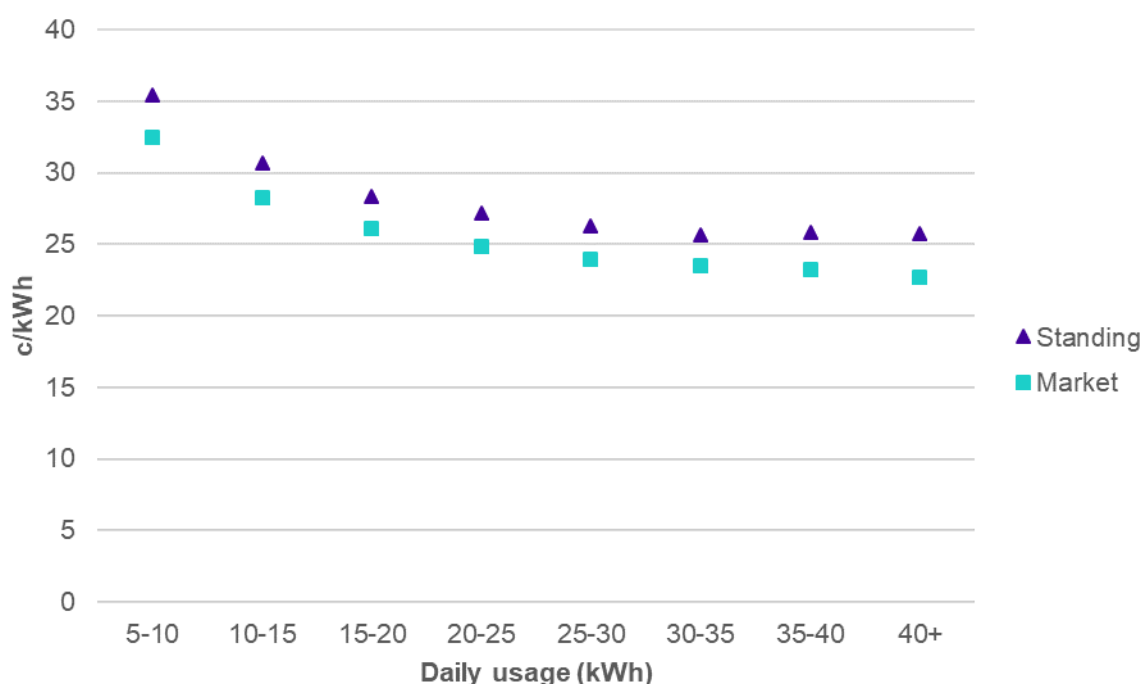
Figure 3.4: Effective prices paid by small business market and standing offer customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values in real 2020 dollars, all regions combined.

As discussed in section 3.6, market offer customers used significantly more electricity than standing offer customers. We investigate how usage affects effective price by looking at non-solar residential customers by usage ranges. Across all levels of usage, residential market offer customers paid a lower median effective price than standing offer customers in 2020 quarter 3 (figure 3.5). This shows that a market offer customer who uses the same amount of grid electricity as a standing offer customer would pay a lower effective price at all usage levels.

Figure 3.5: Effective prices paid by usage bands by residential non-solar market and standing offer customers



Source: ACCC analysis of retailer billing data. Figure shows median values for all regions combined.

The difference in effective price was greatest in the 40+ kWh usage band, with non-solar market offer customers paying 3.0 c/kWh less than non-solar standing offer customers. There were similar outcomes for residential customers in each region. The difference in effective price between non-solar market and standing offer customers was greatest in New South Wales, Victoria, and South Australia with an average difference of 5.8 c/kWh across all daily usage bands. The smallest difference in effective price between non-solar market and standing offer customers was in south-east Queensland, with an average difference of 4.4 c/kWh across all daily usage bands.

3.3. Big 3 and non-big 3 prices have narrowed

The 'big 3' retailers (AGL, EnergyAustralia and Origin) continue to serve most customers across eastern and southern Australia.¹⁸ 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. Comparing effective price differences between the big 3 and other retailers is one way of measuring the level of competition among retailers. In 2020 we generally find that price differences between big 3 and non-big 3 retailers have narrowed.

¹⁸ Australian Energy Regulator, [Annual retail markets report 2019–20](#), Commonwealth of Australia, 30 November 2020, p 21.

We reported in September 2020 that residential and small business big 3 customers paid higher effective prices than non-big 3 customers in every region. However, in 2020, residential market offer customers with the big 3 paid a median price less than the non-big 3 in all regions except south-east Queensland. Big 3 market offer customers in Victoria and South Australia in particular are getting a better deal than non-big 3 customers (table 3.1).

Table 3.1: Residential median market offer effective prices by retailer category

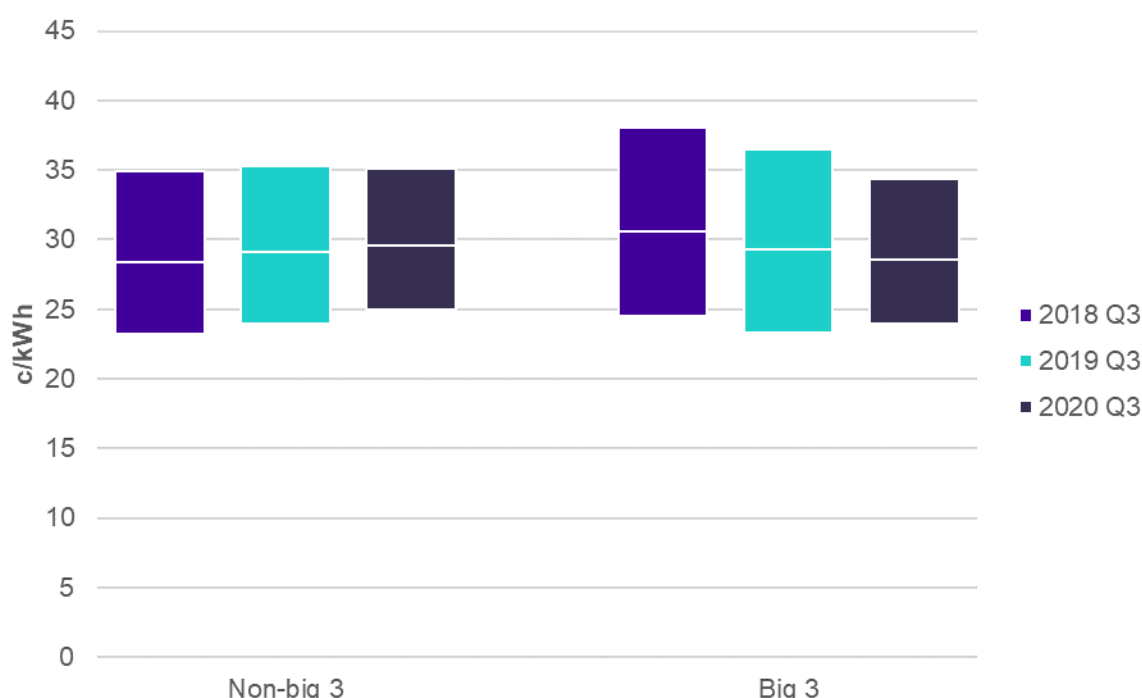
| | 2019 | | | 2020 | | |
|-----------------|---------------|-------------------|--------------|---------------|-------------------|--------------|
| | Big 3 (c/kWh) | Non-big 3 (c/kWh) | % difference | Big 3 (c/kWh) | Non-big 3 (c/kWh) | % difference |
| Victoria | 29.3 | 29.1 | 0.7 | 28.6 | 29.6 | 3.4 |
| NSW | 26.2 | 26.1 | 0.4 | 25.3 | 25.4 | 0.4 |
| SA | 34.8 | 33.5 | 3.6 | 32.7 | 34.0 | 3.8 |
| SEQ* | 23.8 | 22.1 | 7.7 | 19.4 | 19.3 | 0.5 |

Source: ACCC analysis of retailer billing data. The cheaper price is in bold.

* Includes government rebate

In Victoria the effective prices for non-big 3 market offer customers increased by 0.5 c/kWh or 1.7% between 2019 and 2020 (table 3.1). Market offer customers with the big 3 experienced a price decrease of 0.7 c/kWh or 2.4% over the same period.

Figure 3.6: Effective prices paid by residential market offer customers by retailer category in Victoria



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values in real 2020 dollars.

In 2020, small business market offer customers with the big 3 retailers continued to pay more than those with non-big 3 retailers. However, the difference between prices narrowed, with the exception of south-east Queensland (table 3.2).

Table 3.2: Small business median market offer effective prices by retailer category

| | 2019 | | | 2020 | | |
|-----------------|---------------|-------------------|--------------|---------------|-------------------|--------------|
| | Big 3 (c/kWh) | Non-big 3 (c/kWh) | % difference | Big 3 (c/kWh) | Non-big 3 (c/kWh) | % difference |
| Victoria | 32.0 | 30.2 | 6.0 | 33.8 | 32.7 | 3.4 |
| NSW | 32.0 | 32.0 | 0.3* | 31.9 | 31.8 | 0.3 |
| SA | 41.3 | 39.1 | 5.4 | 39.4 | 38.6 | 2.1 |
| SEQ** | 29.4 | 28.2 | 4.2 | 26.7 | 25.2 | 6.0 |

Source: ACCC analysis of retailer billing data. The cheaper price is in bold.

* The difference in effective price is less than 0.1 c/kWh and so the NSW big 3 and non-big 3 are the same due to rounding.

** Includes government rebate

As part of our role monitoring compliance with the Prohibiting Energy Market Misconduct provisions, we note that supply costs have come down and that retailers are required to adjust customers' prices accordingly (box 3.1).

Box 3.1: Retailers must pass through cost reductions

The analysis in this report focuses on customers' experienced electricity costs, both in the form of an annual bill and an effective price. These measures combine the prices paid by customers with the amount of electricity customers use.

However, the ACCC is also specifically monitoring the actual prices charged by retailers. The ACCC is responsible for enforcing new legislation that requires electricity retailers to pass on cost reductions to customers.

In June 2020, the Prohibiting Energy Market Misconduct Act came into effect. It ensures that electricity retailers pass on reductions in the 'underlying costs of procuring electricity' to customers.¹⁹

The 'underlying costs of procuring electricity' consists of network costs, wholesale electricity costs, and the cost of complying with environmental schemes. Together, these make up about 78% of a residential customer's bill.²⁰

ACCC monitoring of costs suggests there has been a significant reduction in retailer costs over the 12 months to May 2021. This reduction is not yet fully evident in the billing dataset that is the basis of this report, which focuses on 2020 quarter 3 (and comparisons against 2019 quarter 3) and financial year comparisons (2019–20 against 2018–19).

Wholesale electricity is the second largest cost component and makes up 33% of a residential customer's bill. Over the past year, wholesale electricity prices have fallen significantly and are expected to remain low for some time. Between May 2020 and May 2021, average annual spot prices have fallen in the National Electricity Market between 33% in Queensland and 54% in Victoria.

¹⁹ The Prohibiting Energy Market Misconduct 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 Prohibiting Energy Market Misconduct Act also aims to prevent generators from inflating wholesale prices or blocking access to electricity contracts, both of which could increase retail prices for customers.

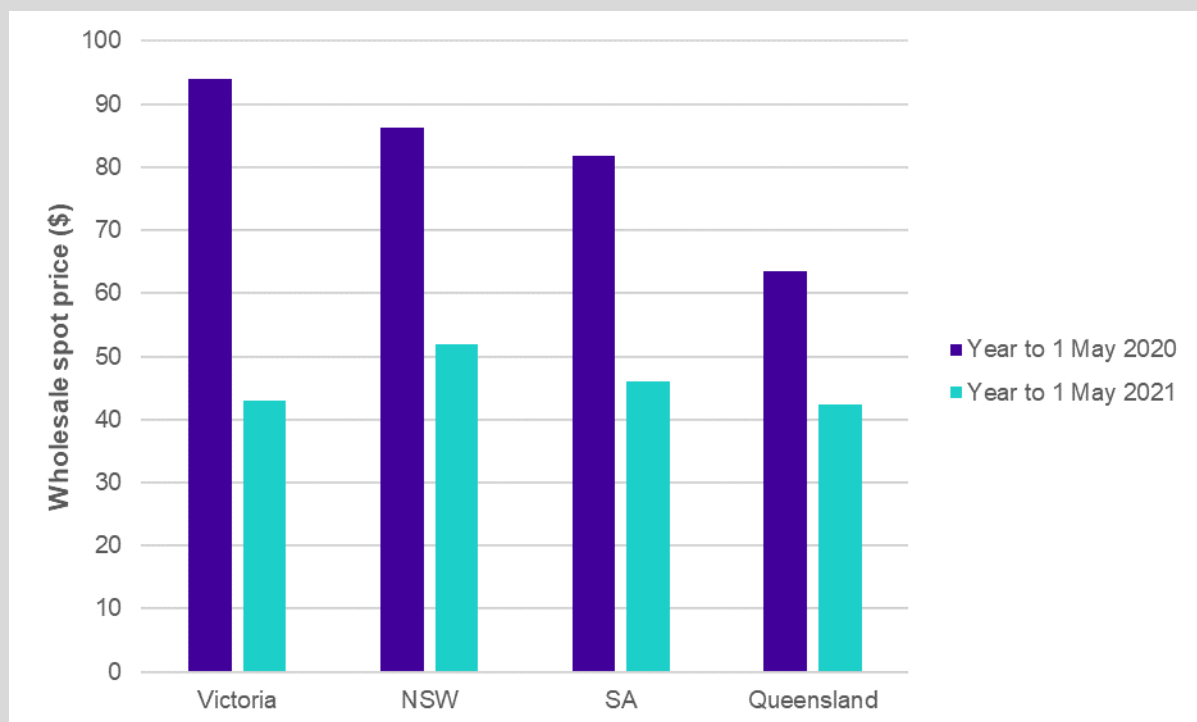
²⁰ ACCC analysis of retailer cost stack data for 2019–20.

Table 3.3: Annual wholesale electricity spot prices (volume weighted average)

| | Victoria | NSW | SA | Queensland |
|---------------------------|----------|------|------|------------|
| Year to 1 May 2021 | 43 | 52 | 46 | 42 |
| Year to 1 May 2020 | 94 | 86 | 82 | 64 |
| Change from 2020 | -51 | -34 | -36 | -21 |
| % Change from 2020 | -54% | -40% | -44% | -33% |

Source: ACCC analysis using NEM data

Figure 3.7: Annual wholesale electricity spot prices (volume weighted average)



Source: ACCC analysis using NEM data

Network costs, which make up 43% of the residential bill, have also reduced in South Australia, Victoria and Tasmania in the last year. Although they have increased in other states, they did not increase to an extent that it would offset the large decreases in wholesale electricity costs. We did not observe major changes in environmental costs over the same period.

Retailers need to make reasonable adjustments to their prices for households and small businesses given these cost reductions.

ACCC monitoring of publicly advertised prices shows price reductions of 3% to 14% for residential flat rate offers in most National Electricity Market regions since mid-2020. If all residential customers in the National Electricity Market regions benefitted from retailers passing through cost reductions, or by switching to lower offers, the total annual savings would be about \$900 million.²¹

This is a good outcome, and helps reduce the adverse impact of higher COVID-related usage and electricity bills for residential customers.

The ACCC is investigating retailers that do not pass on cost reductions, including to their existing customers on older offers.

Further price reductions are expected as reductions in wholesale electricity spot prices flow through to retailers' wholesale electricity contracts.

3.4. Market offer prices have not increased because of reforms

One concern with the introduction of the Default Market Offer and particularly the lower-priced Victorian Default Offer was that retailers would increase prices for market offer customers to make up for lost revenue from standing offer customers. We found in September 2020 that the reforms had not had adverse effects on prices paid by residential market offer customers.

We have updated this comparison for 2018–19 and 2019–20 for Victoria, New South Wales and South Australia. South-east Queensland was excluded because of the impacts of the Queensland Government COVID-19 rebates on effective prices, which we were not able to isolate. For residential customers, overall median market offer effective prices decreased again by more than the changes in supply costs (table 3.4). The decrease in effective price is a positive outcome for consumers.

Table 3.4: Changes in residential median market offer effective prices paid and estimated price impacts from changes in supply costs

| | Change in median market offer price paid (c/kWh; 2018–19 to 2019–20) * | Estimated average price impact due to network, wholesale and environmental costs (c/kWh; 2018–19 to 2019–20) |
|-----------------|--|--|
| Victoria | 2.4% | 5.4% |
| NSW | -2.0% | -2.1% |
| SA | -0.6% | 2.4% |
| All | -0.2% | 0.6% |

Source: ACCC analysis of retailer billing and cost stack data.

* For customers who use 10-15 kWh/day which is representative of the average residential market offer usage.

The comparison of small business median market offer effective prices with changes in supply costs is mixed (table 3.5). However, the most significant extent to which price changes are greater than the cost impacts is less than 1%.

²¹ Expected reductions per customer vary by state and distribution zone; these figures are available on our website at Australian Competition and Consumer Commission, [\\$900 million in electricity bill savings available to households](#), ACCC website, 13 April 2021, accessed 1 May 2021.

Table 3.5: Changes in small business median market offer effective prices paid and estimated price impacts from changes in supply costs

| | Change in median market offer price paid (c/kWh; 2018–19 to 2019–20) * | Estimated average price impact due to network, wholesale and environmental costs (c/kWh; 2018–19 to 2019–20) |
|-----------------|--|--|
| Victoria | 2.9% | 2.1% |
| NSW | -0.4% | -1.0% |
| SA | -1.4% | 5.3% |
| All | 0.7% | 0.5% |

Source: ACCC analysis of retailer billing and cost stack data.

* For customers who use 40+ kWh/day which is representative of the average small business market offer usage.

In 2019–20, the changes in effective prices were broadly reflective of changes in input costs of wholesale, network and environmental costs. Taking into account the COVID-19 usage impacts on residential and small business customers during 2020 these results are generally consistent with our previous observation that the Default Market Offer and Victorian Default Offer reforms have not had adverse effects on prices paid by residential market offer customers.

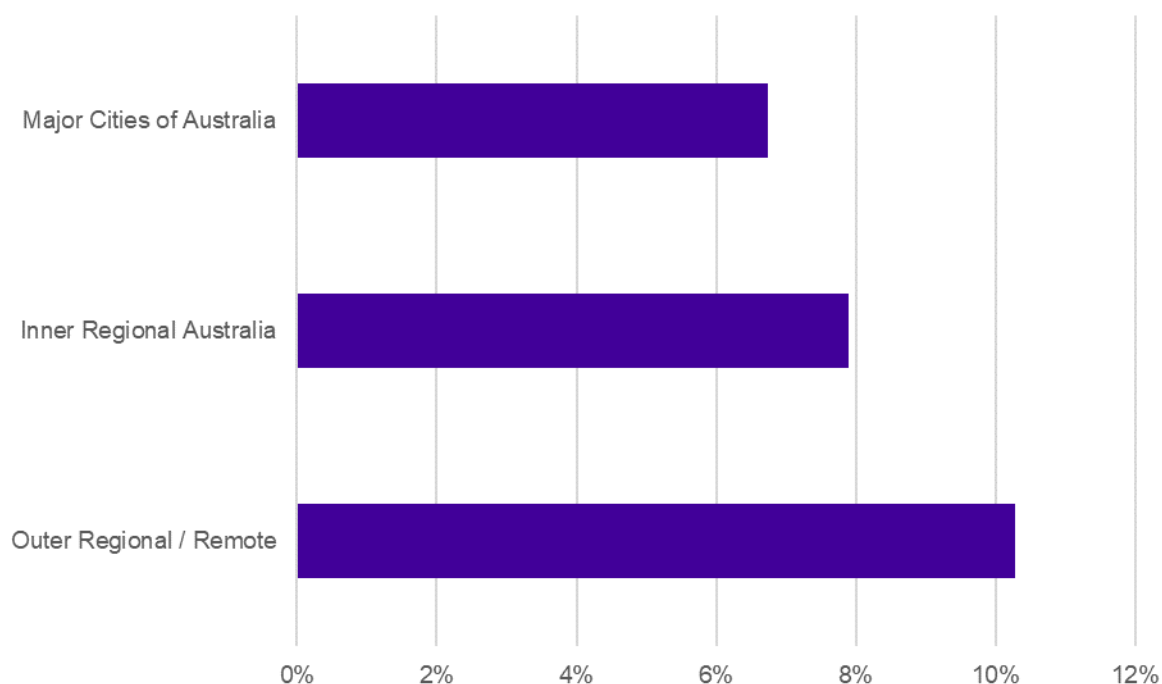
3.5. Regional households and NSW metropolitan small businesses more likely to be on standing offers

There is a higher proportion of residential customers on standing offers in regional areas, but small business customers in major city areas are more likely to be on a standing offer than those in regional areas. We have correlated postcodes from our billing data with Australian Bureau of Statistics (ABS) demographic indicators to understand differences between major city and regional customers.²²

The proportion of residential customers on standing offers was greater in regional and remote areas overall in 2020 (figure 3.8). The proportion of standing offer customers in major cities ranged from 4.4% in Victoria to 8.2% in south-east Queensland. In Victoria, New South Wales, and South Australia, the outer regional or remote locations had the highest proportion of standing offer customers, ranging from 5% in Victoria to 12.3% in New South Wales.

²² See appendix B for details of methodology.

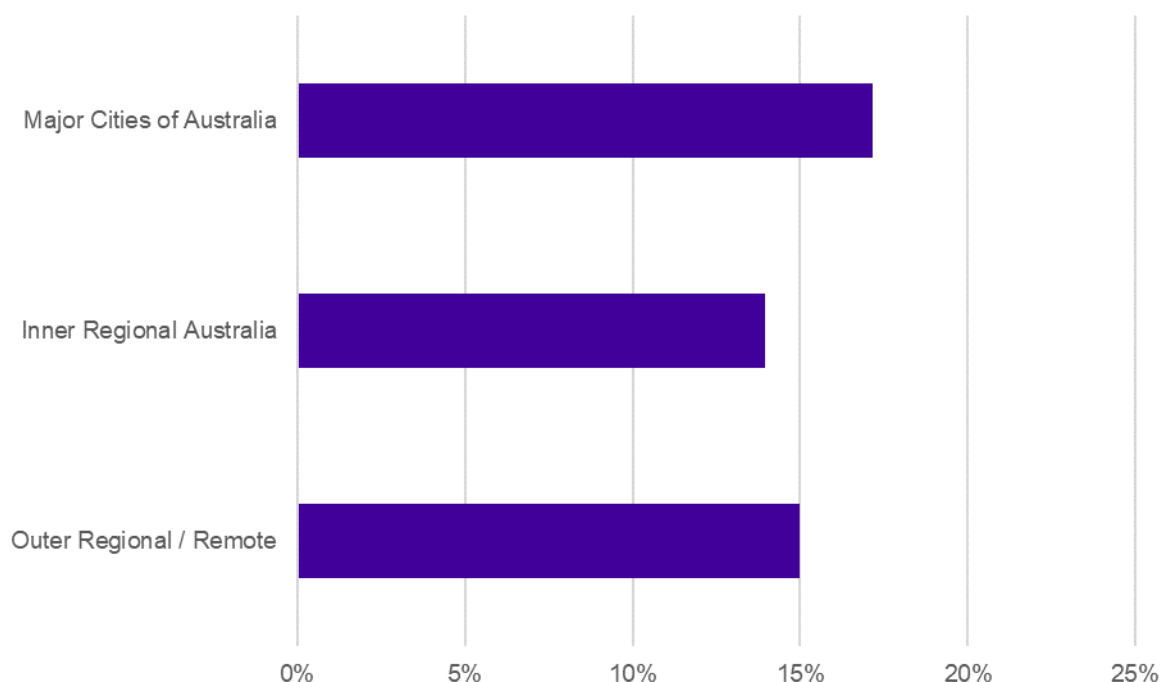
Figure 3.8: Proportion of residential customers on standing offers by level of remoteness



Source: ACCC analysis of retailer billing data. Figure shows all regions combined. Classification into remote categories based on billing postcode data and ABS geographic tables.

Small business customers in city centres are more likely to be on standing offers although this varies by National Electricity Market region (figure 3.9). This result is primarily because NSW has the highest overall number of small business customers in major cities. 22.3% of NSW small businesses in major cities are on standing offers, compared to 15.3% in inner regional New South Wales and 17.9% in outer regional/remote New South Wales. In all other regions, the standing offer proportion in regional areas is higher than or equal to major cities. In Victoria, the proportion was lowest and relatively equal with 10% in inner regional and 11% in outer regional and major cities. In South Australia, the proportion of standing offer customers in major cities was 13%, and 16–17% in regional areas. In south-east Queensland the proportion of standing offer customers is second highest to NSW and in major cities was 17% and 21–23% in regional areas.

Figure 3.9: Proportion of small business customers on standing offers by level of remoteness



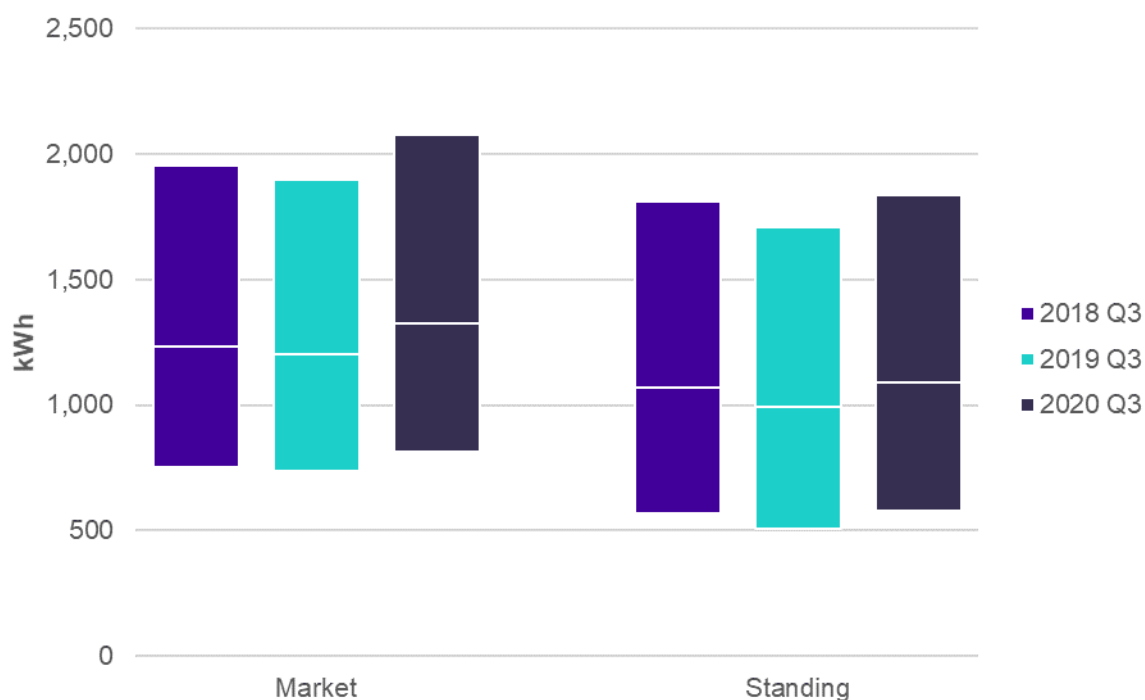
Source: ACCC analysis of retailer billing data. Figure shows all regions combined. Classification into remote categories based on billing postcode data and ABS geographic tables.

3.6. Market offer customers use more than standing offer customers

Market offer customers typically use a lot more electricity than standing offer customers and this is true for both residential and small business customers (figure 3.10 and figure 3.11). It is possible that as larger users, market offer customers are more likely to engage with the market to minimise their bills. As discussed in section 2, COVID-19 had clear impacts on electricity consumption by residential and small business customers. The increases in residential consumption and decreases in small business consumption between 2019 and 2020 are evident for both standing and market offer customers.

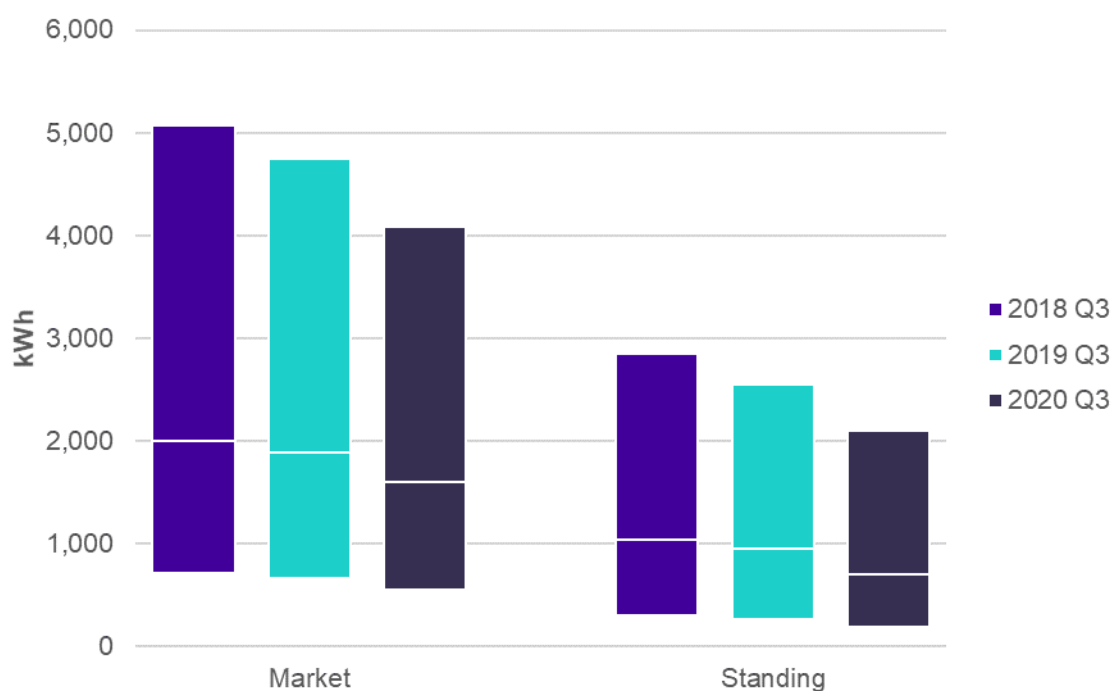
Residential market offer customers had a median quarterly usage of 1,327 kWh in 2020, which was 236 kWh (22%) more than standing offer customers at 1,091 kWh (figure 3.10). Between 2019 and 2020, market and standing offer customers used 123 kWh and 99 kWh more electricity from the grid respectively. This equated to a 10% increase in usage for both market and standing offer customers. This increase is also notable because it goes against the general trend of decreased residential usage over time, generally attributable to an increase in solar panel uptake. For example, residential median usage decreased by 3% from 2018 to 2019.

Figure 3.10: Quarterly grid usage by residential market and standing offer customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values, all regions combined.

Figure 3.11: Quarterly grid usage by small business market and standing offer customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values, all regions combined.

In 2020 small business median usage decreased by 15% for market offer customers and by 26% for standing offer customers (figure 3.11). In contrast to residential customers, there is significant variability in the amount of grid electricity used by small business customers. The large interquartile range for market offer usage reflects a wide variety of business types and sizes with a range of different energy needs. It is possible that small businesses on standing offers have lower electricity needs or electricity is not a major cost relative to other costs. This could be a reason for lack of engagement with the retail market and the relatively high proportion of small businesses on standing offers. Further analysis is required to understand the reasons why customers in regional Australia were more likely to be on standing offers.

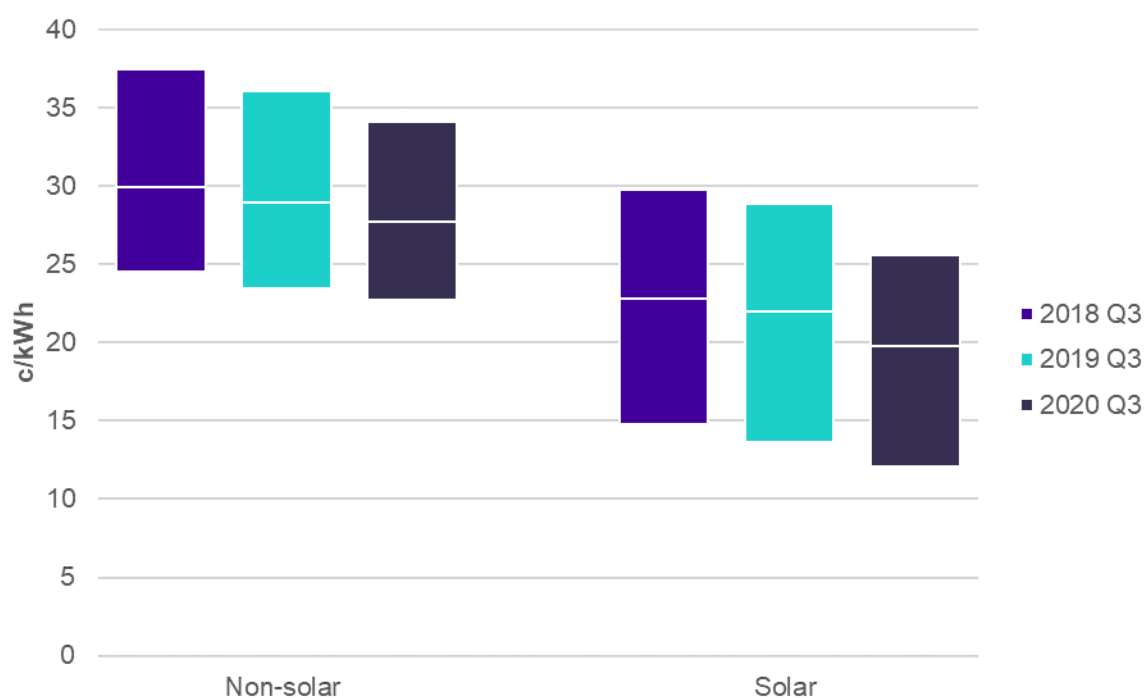
4. Solar customers benefit from rebates and pay lower rates

Residential and small business customers with solar panels paid much lower rates than non-solar customers because they earn feed-in tariff payments, or rebates, for exporting electricity generated by their solar panels to the grid. Early solar panel adopters earned the highest rebates because of subsidised solar schemes, although newer solar customers supplied more electricity to the grid. Due to the COVID-19 pandemic, households with solar panels increased their use of grid electricity in 2020, while small businesses with solar panels decreased their use of grid electricity. This resulted in higher bills for residential solar customers in 2020, although still lower than non-solar residential bills. Small businesses with solar paid lower bills from reduced activity.

4.1. Solar customers pay the lowest effective prices

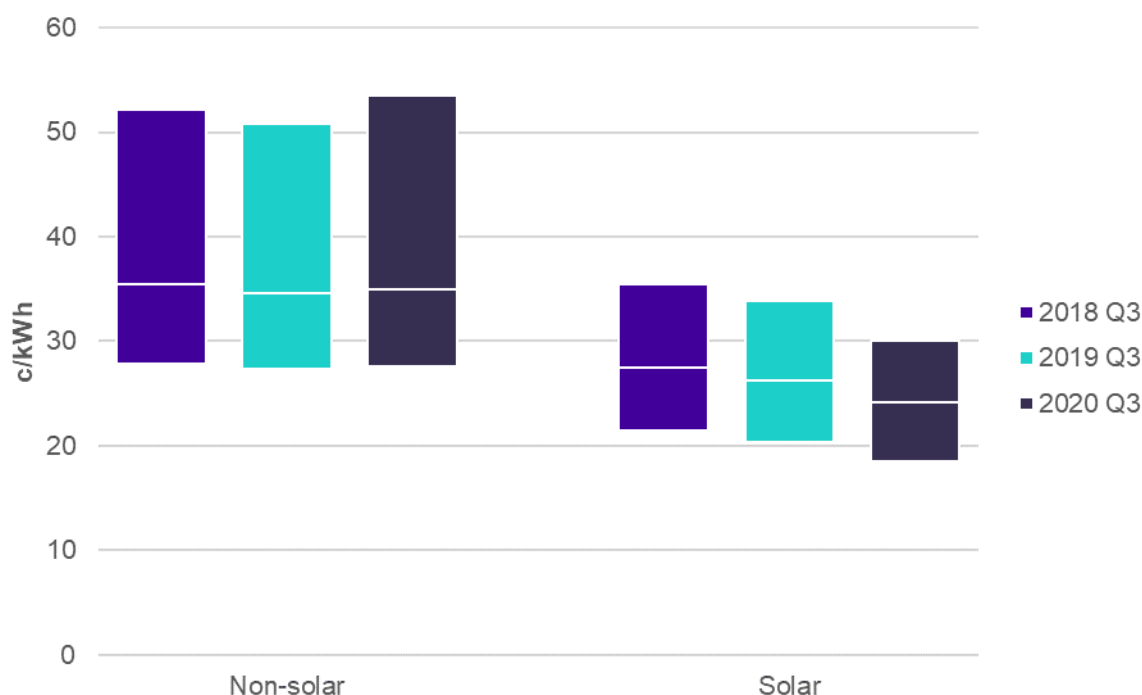
Residential and small business solar customers continued to pay much lower effective prices than non-solar customers (figure 4.1 and figure 4.2). The effective price measure divides the net amount paid by solar customers, taking into account the rebates they receive from exporting electricity generated by their solar panels, by the volume of electricity they draw from the grid. The lower effective prices paid is primarily due to the rebates.

Figure 4.1: Effective prices paid by residential non-solar and solar customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values in real 2020 dollars, all regions combined.

Figure 4.2: Effective prices paid by small business non-solar and solar customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values in real 2020 dollars, all regions combined.

Solar customers across the four regions paid a lower median effective price than non-solar customers in 2020. Residential solar customers paid 7.9 c/kWh or 29% less than non-solar customers (figure 4.1), while small business solar customers paid 10.8 c/kWh or 31% less than non-solar customers (figure 4.2). This was not driven by differences in grid usage for residential customers, as residential solar customers used only slightly more electricity from the grid than non-solar customers (figure 4.7 in section 4.4). While small business solar customers also benefit from rebates, the lower effective price paid by these customers is also likely because they had significantly higher usage than non-solar small business customers (figure 4.8 in section 4.4).

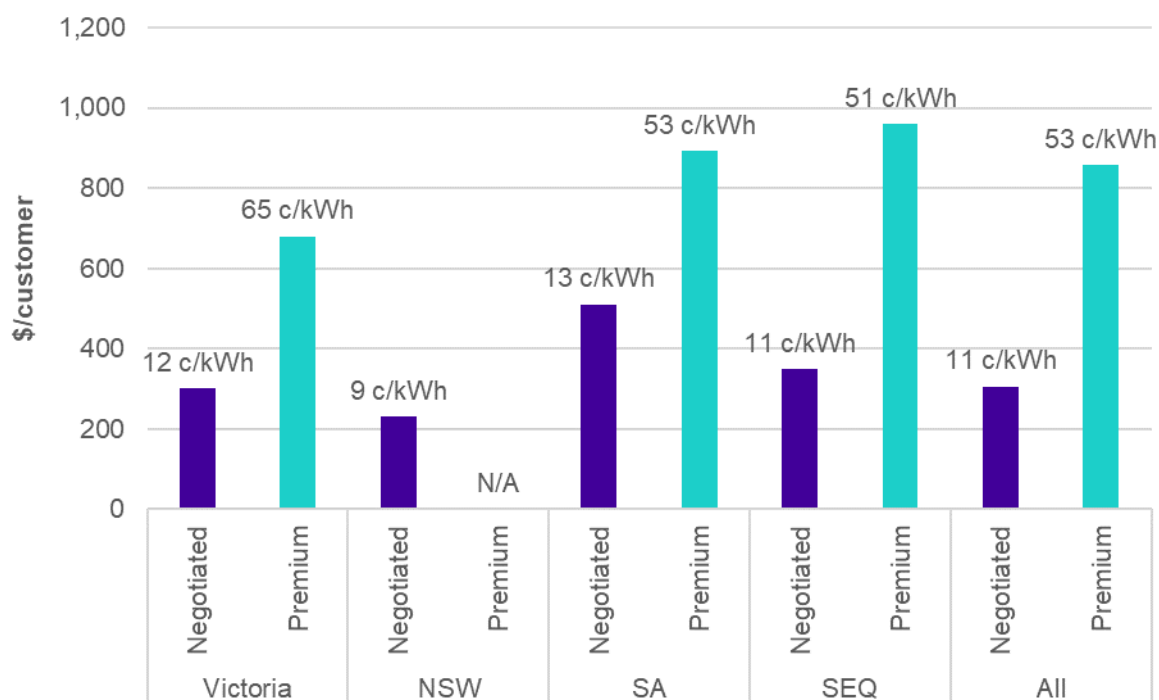
4.2. Early solar panel adopters earn the highest rebates

Early solar panel adopters that receive a premium feed-in tariff are getting a particularly good deal. They make up 23% of residential solar customers and 13% of small business solar customers based on our 2019–20 analysis.²³ Subsidised premium feed-in tariff customers received much higher annual rebates than solar customers with a negotiated feed-in tariff.²⁴ This is shown for residential and small business solar customers in figure 4.3 and figure 4.4.

²³ Based on billing data provided by retailers.

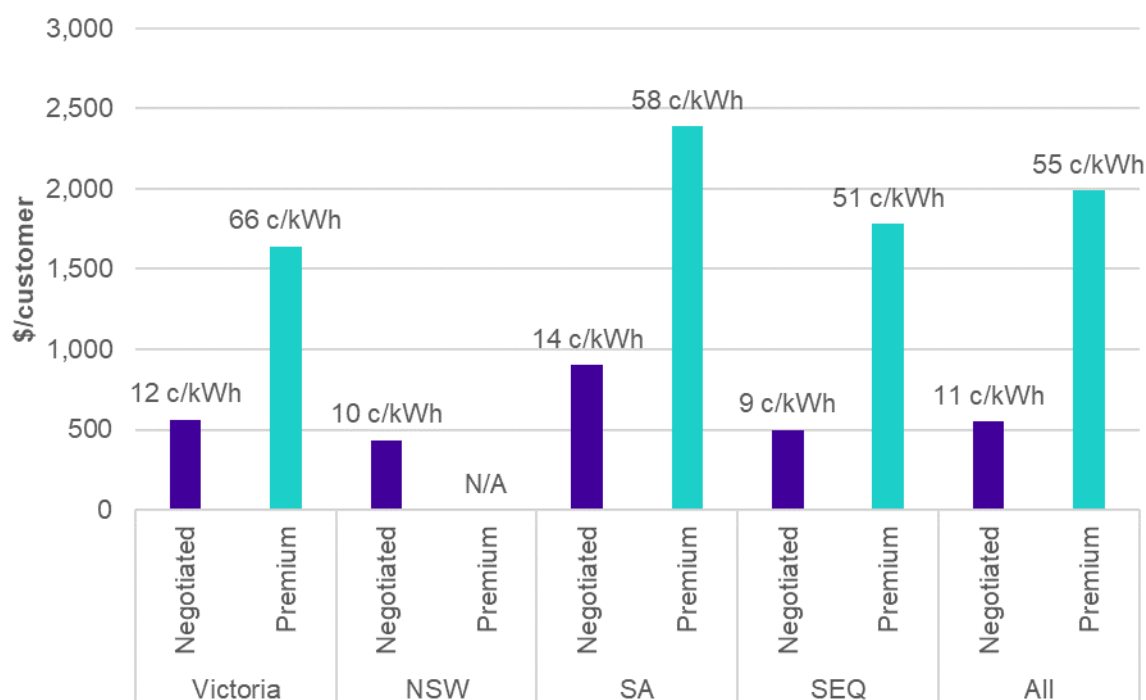
²⁴ For our analysis we have defined a negotiated feed-in as a rate less than 30 c/kWh. For further information on methodology, please refer to appendix B.

Figure 4.3: Annual solar rebates and effective feed-in rates received by residential customers (FY 2019–20)



Source: ACCC analysis of retailer billing data. Figure shows median values by region in real 2020 dollars.

Figure 4.4 Annual solar rebates and effective feed-in rates received by small business customers (FY 2019–20)



Source: ACCC analysis of retailer billing data. Figure shows median values by region in real 2020 dollars.

Solar customers with premium rates earned much more than customers on negotiated rates across the four regions:

- Overall, the median residential solar customer with premium rates earned \$858 annually (figure 4.3). By comparison, the median residential customer with a negotiated rate earned \$307 annually.
- The median small business customer with premium rates earned \$1,993 (figure 4.4) compared with \$553 for the median small business customer with a negotiated rate.

This occurs even though residential and small business customers on premium rates supplied less into the grid than customers on negotiated rates (figure 4.5 and figure 4.6 in section 4.3). Residential solar customers on premium rates overall earned over two and a half times that of customers on negotiated rates due to their higher median feed-in rate (53 c/kWh compared to 11 c/kWh). Similarly, small business solar customers on premium rates overall earned three times that of customers on negotiated rates because of their higher median rate (55 c/kWh compared to 11 c/kWh).

The premium rates are a legacy of previous state government environmental policies. The ACCC has previously called for state governments to end premium feed-in tariff schemes because these subsidy incentives are no longer required and the cost of these schemes is paid for by non-solar customers.²⁵ These schemes are closed to new entrants, though the New South Wales Government is the only government to have entirely closed the scheme.²⁶

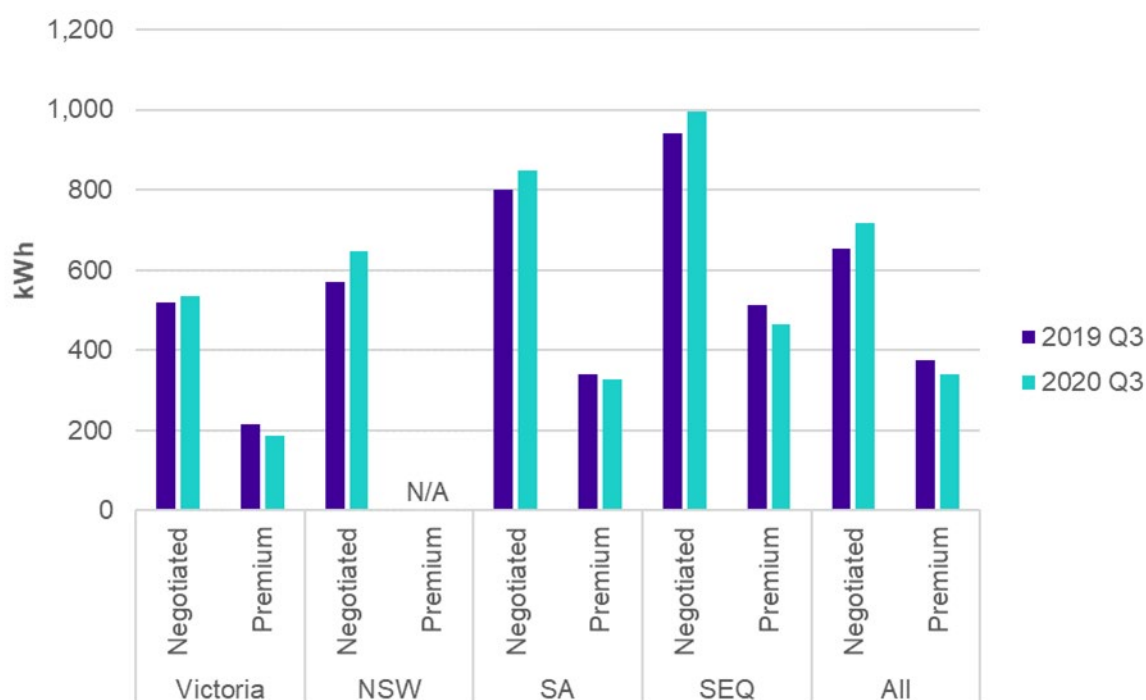
4.3. Newer solar customers supply more electricity to the grid than early solar adopters

Newer solar customers on negotiated feed-in tariffs supply more electricity to the grid than early solar adopters on premium rates (figure 4.5 and figure 4.6). This is likely because system sizes for solar panels are much larger today than they were when early solar adopters invested in solar panels.

²⁵ Australian Competition and Consumer Commission, [Restoring electricity affordability and Australia's competitive advantage, Retail Electricity Pricing Inquiry—Final Report](#), Commonwealth of Australia, 11 July 2018, p 218; Australian Competition and Consumer Commission, [Inquiry into the National Electricity Market—September 2020 report](#), Commonwealth of Australia, 19 October 2020, pp 6–7.

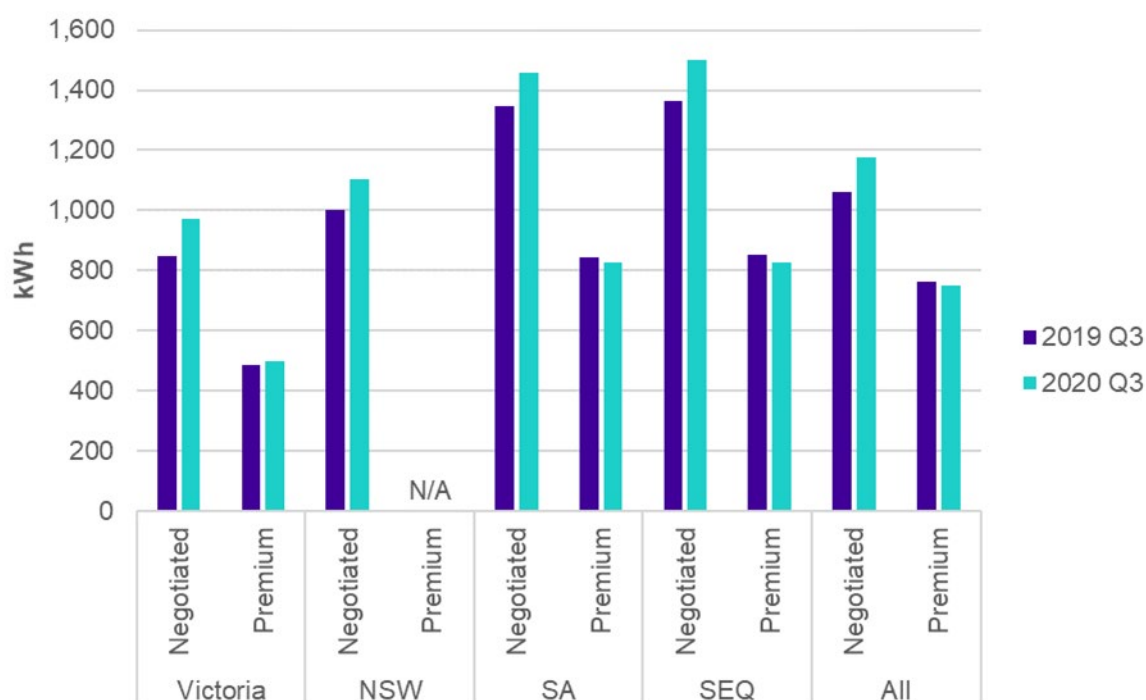
²⁶ New South Wales Government, [The solar bonus scheme is closed](#), New South Wales Government website, 8 April 2019, accessed 22 April 2021.

Figure 4.5: Quarterly feed-in supply by residential solar customers



Source: ACCC analysis of retailer billing data. Figure shows median values by region.

Figure 4.6: Quarterly feed-in supply by small business solar customers



Source: ACCC analysis of retailer billing data. Figure shows median values by region.

Customers on negotiated rates supplied much higher median volumes of electricity into the grid than premium rate customers across the four regions. For residential solar customers in 2020, negotiated feed-in tariff customers supplied 716 kWh electricity to the grid, while

premium rate customers supplied 341 kWh (375 kWh difference, shown in figure 4.5). Similarly, for small business solar customers in 2020, negotiated feed-in tariff customers supplied 1,177 kWh electricity to the grid, while premium rate customers supplied 751 kWh (426 kWh difference, shown in figure 4.6).

Customers on negotiated rates supplied higher volumes to the grid in 2020 than in 2019, while this was generally not the case for premium rate customers (figure 4.5 and figure 4.6). This is likely due to negotiated customers investing in new solar capacity and also bigger systems being installed over time, whereas many of the eligibility requirements to remain on a premium rate prohibit augmenting the solar panel system, so the scope for premium rate solar customers to export more electricity to the grid over time is limited.²⁷

Regional comparisons for residential and small business customers show customers on negotiated rates in South Australia and south-east Queensland supplied higher volumes to the grid than other regions (figure 4.5 and figure 4.6). This most likely reflects the prevailing conditions for solar generation in these areas of Australia. Solar customers in South Australia received the best negotiated rates (13 c/kWh for residential customers and 14 c/kWh for small business customers, figure 4.3 and figure 4.4 in section 4.2).

Negotiated feed-in tariffs are offered at competitive rates by retailers; however, state regulators also set minimum feed-in tariffs or benchmarks for what a fair feed-in tariff rate is. These regulatory decisions typically take into account forecast wholesale spot market prices as an indication of the actual cost to supply.²⁸

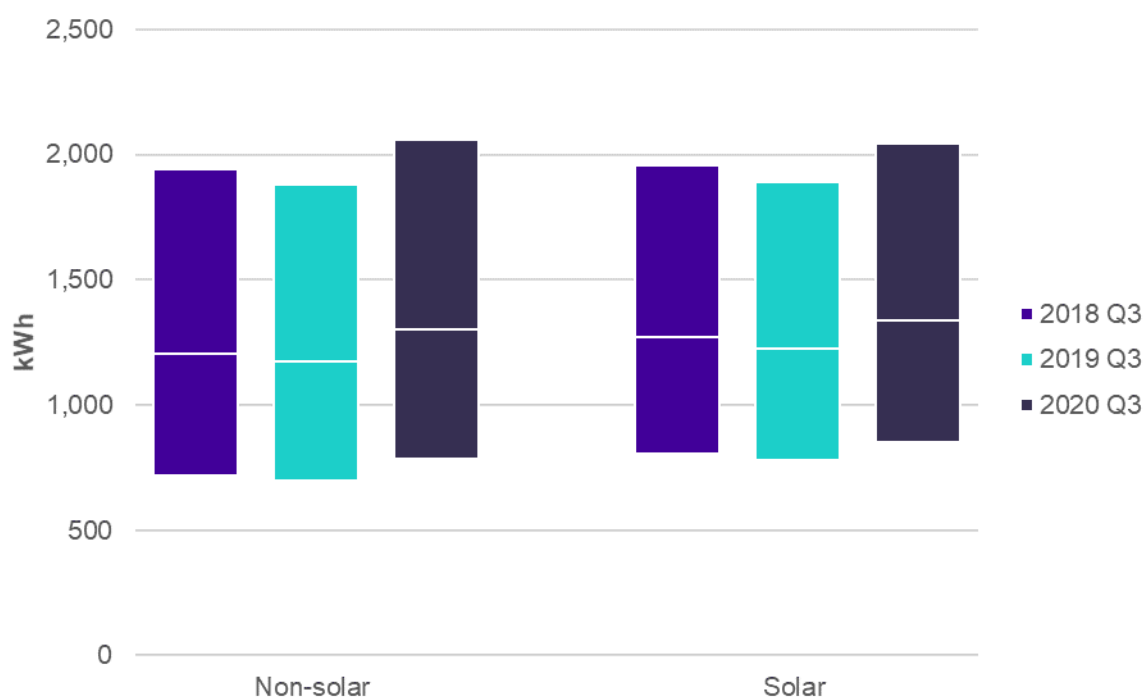
4.4. Residential solar customers used more electricity and small business solar customers used less

We observe the same usage impact of the COVID-19 pandemic discussed in chapter 2 even when we separately consider non-solar and solar customers. Residential non-solar and solar customers' usage of grid electricity increased in 2020 (by 11% and 9% respectively, figure 4.7). Small business non-solar and solar customers' usage of grid electricity decreased in 2020 (by 18% and 2% respectively, figure 4.8).

²⁷ Queensland Government, [Solar Bonus Scheme 44c feed-in tariff: How to maintain your eligibility](#), Queensland Government website, last updated 6 March 2018, accessed 5 May 2021; Victorian Government, [Maintaining eligibility for the premium feed-in tariff](#), Victorian Government website, last updated 3 April 2020, accessed 4 May 2021; South Australian Government, [Solar feed-in payments](#), South Australian Government website, last updated 27 November 2018, accessed 4 May 2021.

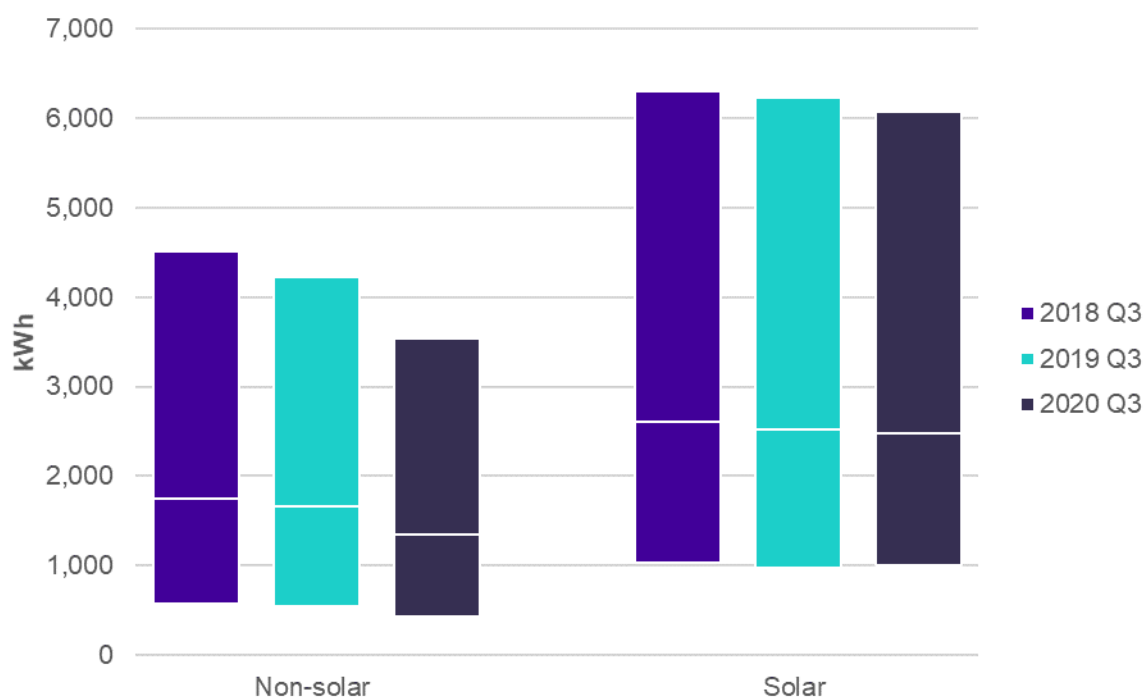
²⁸ See for example Independent Pricing and Regulatory Tribunal New South Wales, [Solar feed-in tariffs 2020/21](#), Independent Pricing and Regulatory Tribunal New South Wales website, accessed 21 April 2021.

Figure 4.7: Quarterly grid usage by residential non-solar and solar customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values, all regions combined.

Figure 4.8: Quarterly grid usage by small business non-solar and solar customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values, all regions combined.

Even for residential customers with solar panels, grid electricity usage increased in 2020. This is in contrast to usage decreases observed between 2018 and 2019 (figure 4.7). Higher

residential usage is likely due to the state government imposed lockdowns as more people stayed home during the day. Having solar panels may have helped limit the extent of the usage increase, as residential customers without solar panels had a slightly higher increase.

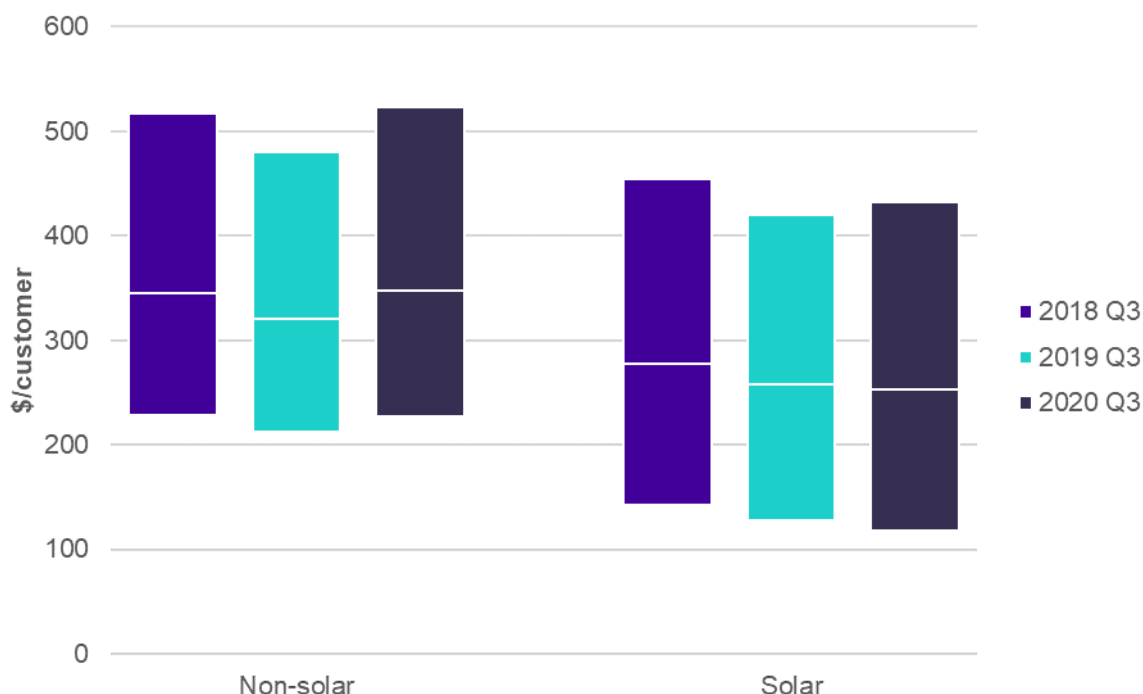
It is more difficult to say how much small business customers with solar panels were impacted by the COVID-19 restrictions as their total consumption is offset by their solar panels. Small business customers without solar panels showed a marked decrease in their usage of grid electricity, consistent with reduced commercial activity due to COVID-19 restrictions. But customers with solar panels showed only a slight decrease in grid electricity usage between 2019 and 2020. This might reflect steady energy use by these small businesses; or it might reflect reduced energy use overall in 2020, combined with decreased use of self-supplied solar energy.

The wide variation in the size and types of small business customers is shown in the large interquartile range for small business customers, particularly those with solar panels. The median solar residential customer continued to use roughly the same amount of grid energy as the non-solar residential customer (the 2020 difference is just 36 kWh). In contrast, the median solar small business customer used much more energy from the grid than the median small business customer without solar panels (the 2020 difference is 1,125 kWh).

4.5. Residential solar customers paid lower bills despite using more

Residential solar customers continued to pay much lower bills than non-solar customers (figure 4.9) despite using more grid electricity (figure 4.7). This is because of the benefit of rebates discussed in section 4.2. In 2020 solar customers had a median quarterly bill of \$253 in 2020, while non-solar customers had a bill of \$347 (\$94 difference).

Figure 4.9: Quarterly bills for residential non-solar and solar customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values in real 2020 dollars, all regions combined.

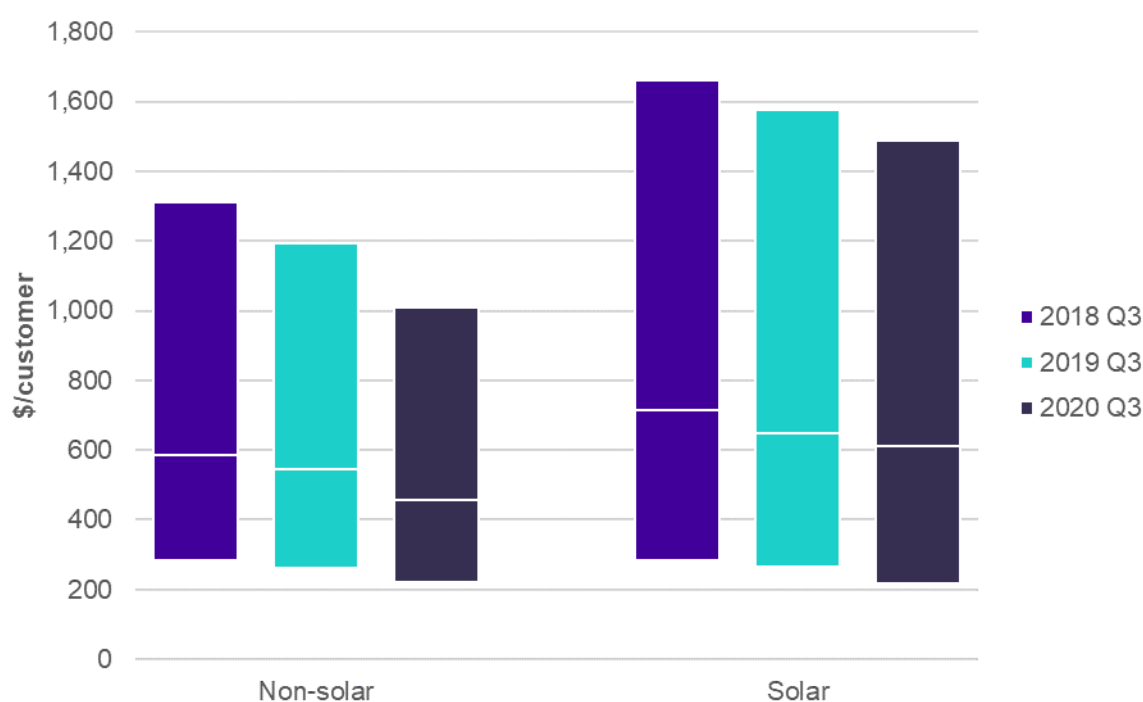
Between 2019 and 2020, the non-solar customer bill increased from \$320 to \$347 (up 8%), while the solar customer bill decreased from \$257 to \$253 (down 2%). The higher non-solar

bill is consistent with the increased grid electricity usage by non-solar customers discussed in section 4.4 (up 11%), while the lower solar bill is despite increased grid usage by solar customers over the same period (up 9%). Residential solar customers therefore benefitted from rebates which reduced their electricity bill amount.

4.6. Small business customers paid lower bills from reduced activity

Small business customers paid lower bills from reduced business activity due to COVID-19 restrictions, although non-solar bills decreased by a greater amount than solar bills in 2020. This is consistent with the usage results that show non-solar customers' grid electricity usage decreased more than solar customers' grid usage. Between 2019 and 2020 median quarter 3 bills for solar customers decreased from \$650 to \$610 (down 6%), while bills for non-solar customers decreased from \$545 to \$458 (down 16%).

Figure 4.10: Quarterly bills for small business non-solar and solar customers



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values in real 2020 dollars, all regions combined

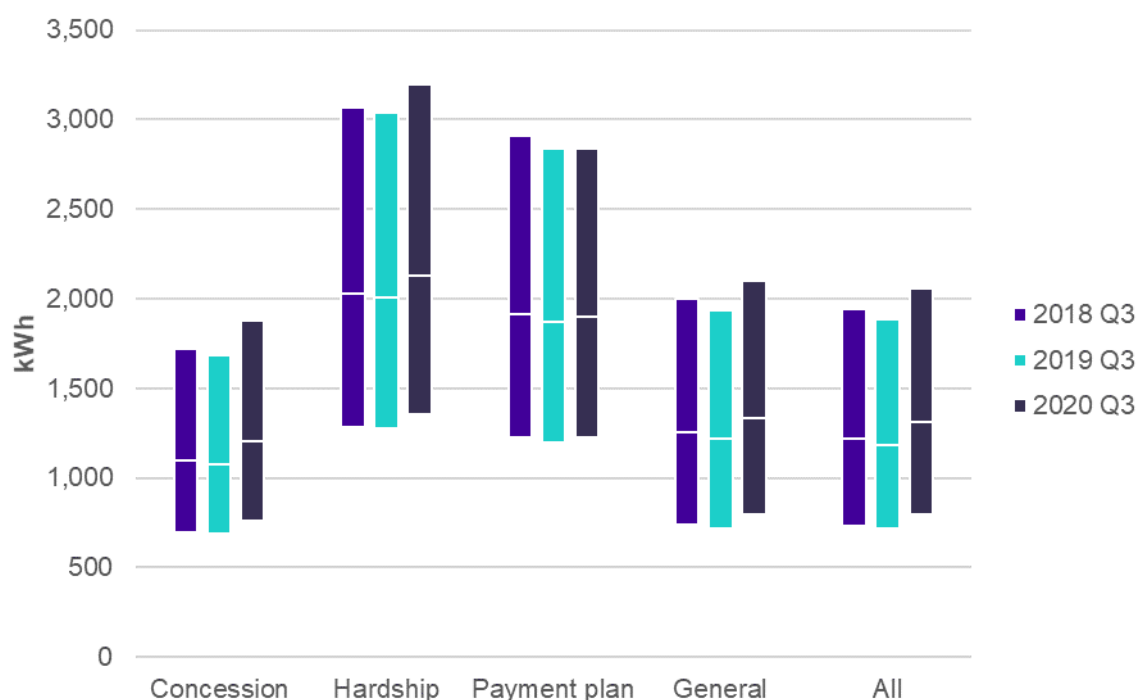
5. Customers in financial difficulties used and paid more

We compare residential customer outcomes for concession customers (around 28% of all customers), customers accessing hardship programs (around 2%), customers using payment plans (around 3%) and general customers (around 68%). Customers in vulnerable circumstances experienced different outcomes than general customers. Hardship and payment plan customers used more electricity and paid more than others, partly due to lower levels of solar panel use. Payment plan customers also paid higher effective prices and were more likely to be on standing offers than hardship customers, due to higher levels of retailer support for hardship customers. Concession customers had relatively positive outcomes, with lower bills than other customer groups due to lower usage and targeted government support.

5.1. Hardship and payment plan customers used more and lacked solar

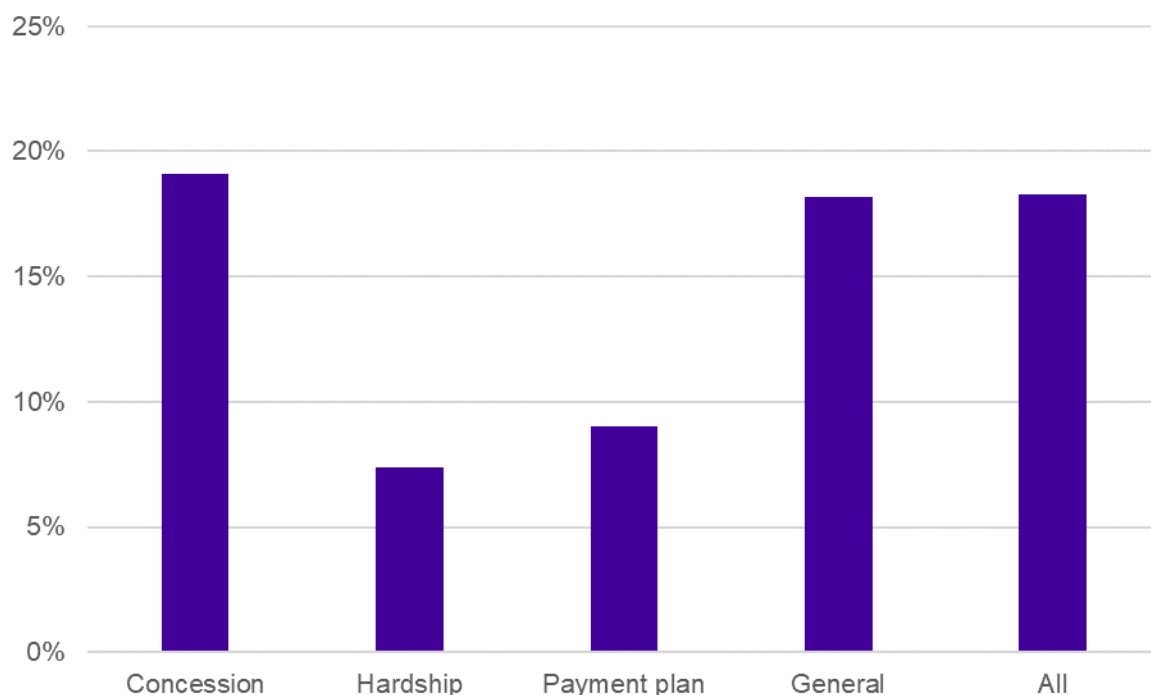
Hardship and payment plan customers used significantly more electricity from the grid than general customers (figure 5.1). This is linked to our finding that hardship and payment plan customers were significantly less likely to have solar panels compared to other customer groups in 2020 (figure 5.2).

Figure 5.1: Quarterly grid usage by residential customer groups



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values, all regions combined.

Figure 5.2: Proportion of solar customers as at 1 July 2020 by residential customer groups



Source: ACCC analysis of retailer billing data, all regions combined.

All customer groups experienced increases in their median quarterly usage between 2019 and 2020 due to pandemic-related lockdowns. Concession (up 126 kWh to 1,204 kWh) and hardship customers (up 123 kWh to 2,129 kWh) experienced the greatest increases.

However, hardship and payment plan customers continued to use substantially more than all customers. Hardship customers used 819 kWh more while payment plan customers used 587 kWh more in 2020. We reported in September 2020 that the higher levels of usage for hardship and payment plan customers were likely due to a lack of solar panels and other factors such as residing in properties that were less energy efficient.²⁹

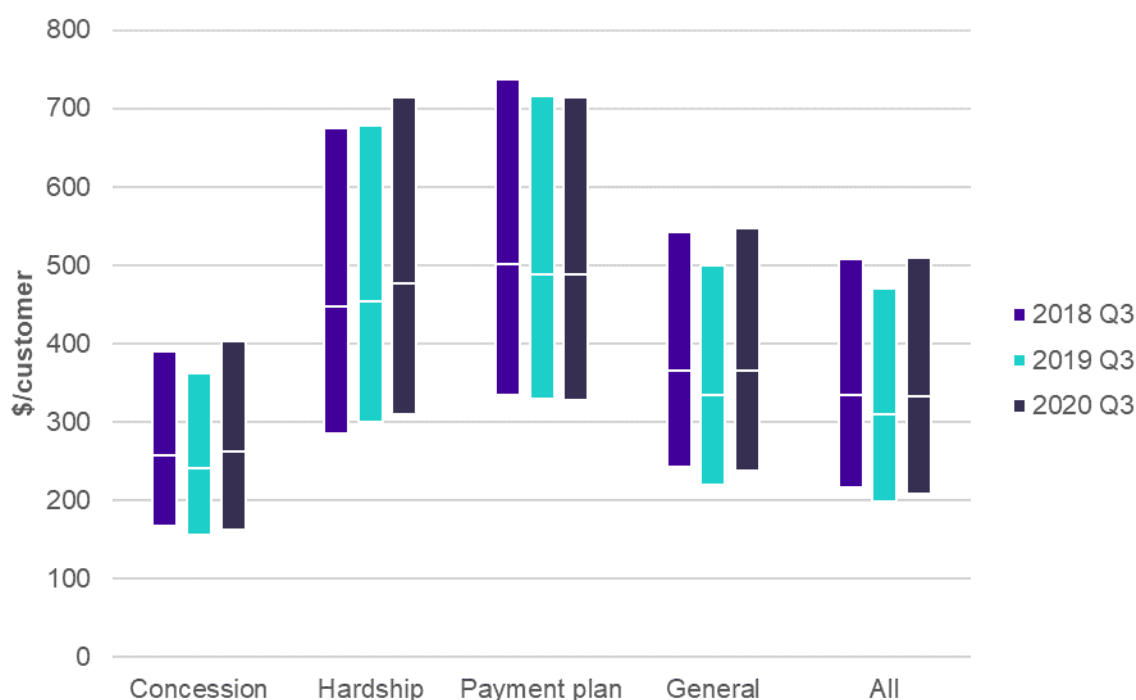
Concession customers were the most likely to have solar panels at 19% in 2020 (figure 5.2). Hardship customers were the least likely to have solar panels at 7%, followed by payment plan customers at around 9%. These results go some way to explaining the high usage of hardship and payment plan customers compared to general customers, as they were more reliant on electricity from the grid.

5.2. Hardship and payment plan customers paid significantly more

Hardship and payment plan customers paid the highest median quarterly bills in 2018, 2019 and 2020 (figure 5.3).

²⁹ Australian Competition and Consumer Commission, [Inquiry into the National Electricity Market—September 2020 report](#), Commonwealth of Australia, 19 October 2020, p 37.

Figure 5.3: Quarterly bills for residential customer groups



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values in real 2020 dollars, all regions combined.

Hardship (\$477) and payment plan customers (\$488) paid the highest median quarterly bills out of all customer groups partly due to higher usage from a lack of solar panels. Hardship customers also experienced the second largest quarterly bill increase after general customers of around \$23 between 2019 and 2020. This was due largely to a 6% increase in usage over the same period (figure 5.1).

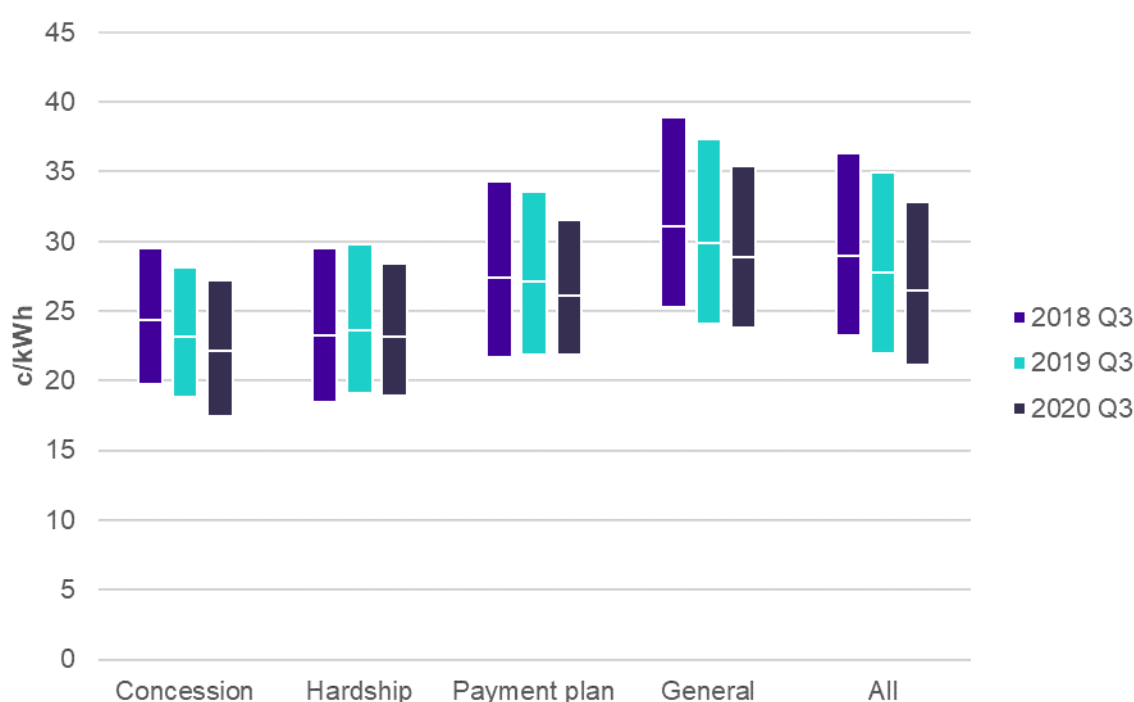
We noted in September 2020 that the higher usage and therefore bills for hardship and payment plan customers may have been one of the reasons why these customers faced payment difficulties in the first place.³⁰ Some hardship and payment plan customers may have found themselves in an even worse financial situation in 2020 if they faced even higher usage and bills. As discussed in section 2.2, regulators and state governments took a number of actions in response to the COVID-19 pandemic that likely had a positive impact on electricity affordability for those facing financial difficulties.

5.3. General customers paid highest effective prices

General customers continued to pay the highest effective price in 2020, although all customer groups experienced decreases in effective prices paid between 2019 and 2020 (figure 5.4).

³⁰ Australian Competition and Consumer Commission, [Inquiry into the National Electricity Market—September 2020 report](#), Commonwealth of Australia, 19 October 2020, pp 37–38.

Figure 5.4: Effective prices paid by residential customer groups



Source: ACCC analysis of retailer billing data. Figure shows interquartile ranges and median values in real 2020 dollars, all regions combined.

General customers paid 28.9 c/kWh in 2020, which was 2.8 c/kWh more than payment plan customers, 5.7 c/kWh more than hardship customers and 6.7 c/kWh more than concession customers.

The differences in effective prices paid between general customers and the other customer groups were likely due to various rebates, discounts and other assistance measures provided by governments or retailers. For instance, concession customers, who paid the lowest effective price in 2020 at 22.2 c/kWh, benefit from government-funded rebates or percentage discounts on their electricity costs.³¹ The annual value of energy concessions may be up to \$285 in New South Wales³², \$231 in South Australia for 2020–21³³ and \$340 in Queensland.³⁴ In Victoria, eligible customers receive a concession of 17.5% on their electricity usage and service costs.³⁵ We also examined the results excluding support measures and found similar price relativities. Hardship customers would have paid 2.9 c/kWh less than general customers even in the absence of support, while concession and payment plan customers would have paid 0.8 c/kWh less.

While payment plan customers paid lower effective prices than general customers in 2020, they paid 3.0 c/kWh more than hardship customers. This was the case regardless of whether

³¹ Australian Competition and Consumer Commission, [Inquiry into the National Electricity Market—September 2020 report](#), Commonwealth of Australia, 19 October 2020, pp 14, 23.

³² New South Wales Government, [Apply for the Low Income Household Rebate](#), New South Wales Government website, 2021, accessed 21 April 2021.

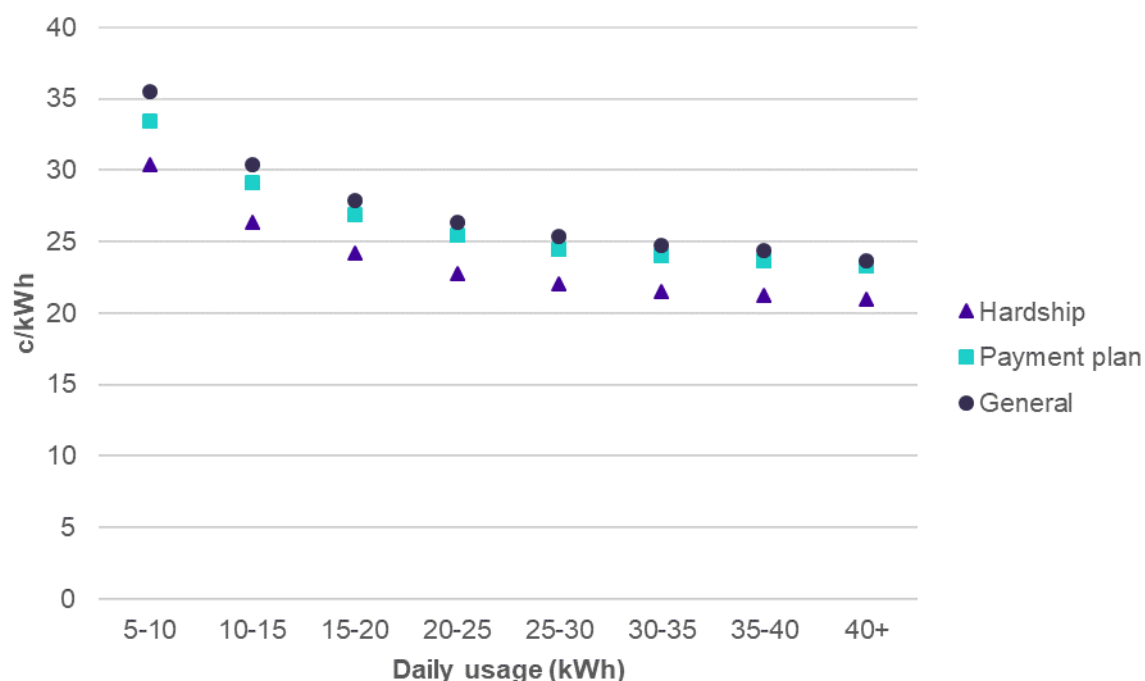
³³ South Australian Government, [Energy bill concessions](#), South Australian Government website, last updated 3 March 2021, accessed 21 April 2021.

³⁴ Queensland Government, [Electricity and gas rebates](#), Queensland Government website, last updated 8 December 2020, accessed 21 April 2021.

³⁵ Victorian Government, [Annual electricity concession](#), Victorian Government website, last updated 8 April 2020, accessed 21 April 2021.

they were a high or low usage household (figure 5.5). Non-solar payment plan customers paid on average 3.3 c/kWh more than non-solar hardship customers across usage bands.

Figure 5.5: Effective prices paid by usage bands by residential customer groups

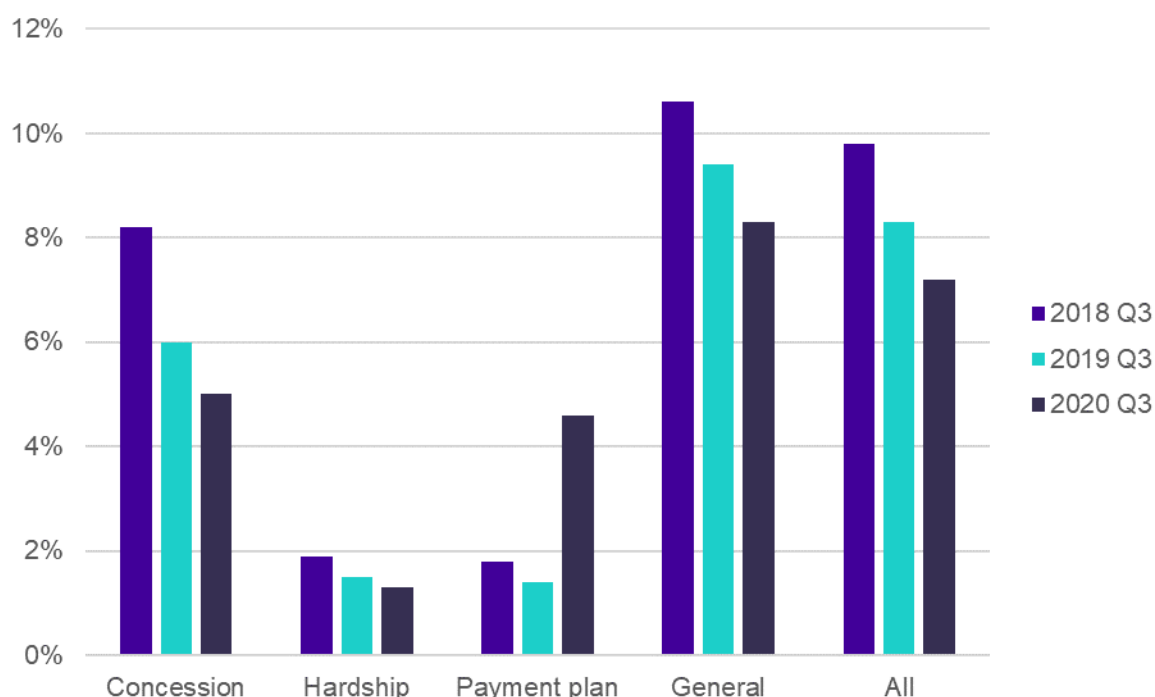


Source: ACCC analysis of retailer billing data. Figure shows median values, all regions combined.

5.4. Payment plan customers were more likely than hardship customers to be on a standing offer

The proportion of customers on standing offers continued to decrease for all customer groups between 2018 and 2020, apart from payment plan customers (figure 5.6). The proportion of standing offer customers overall decreased from 9.8% to 7.2% between 2018 and 2020.

Figure 5.6: Proportion of residential customers on standing offers by customer group



Source: ACCC analysis of retailer billing data, all regions combined.

The proportion of hardship customers on standing offers continued to be the lowest out of all the customer groups, at 1.3% in 2020. This may be because retailers are required to place hardship customers onto offers that minimise their energy costs under retailers' hardship policies.³⁶ Hardship customers may also have a greater incentive to find better priced market offers. These observations are supported by our analysis that shows that although hardship customers used more grid electricity than any other group, they also paid much lower effective prices than general customers.

Payment plan customers were the only customer group to experience an increase in the proportion on standing offers, by 3.2 percentage points to 4.6%. However, the increase between 2019 and 2020 is mostly attributed to improvements in 2020 data for payment plan customers in the most recent billing data collection.³⁷ This result does show however that payment plan customers were significantly more likely to be on standing offers than hardship customers. This may reflect differences in the nature of assistance required of retailers for payment plan customers, as compared to hardship customers. While customers on hardship programs must be moved to the offer that will minimise their costs, there is no equivalent entitlement for customers on payment plans.³⁸

This difference in proportion of hardship and payment plan customers on standing offers may at least partly explain the significantly higher effective prices that payment plan customers paid (figure 5.4). While more competitive offers are available for payment plan

³⁶ Australian Energy Regulator, [Customer Hardship Policy Guideline—Version 1](#), Commonwealth of Australia, March 2019, p 21; Essential Services Commission, [Energy Retail Code](#), Victorian Government, 1 April 2021, p 95.

³⁷ We received improved information from certain retailers in relation to payment plan customers in 2020. Previously certain retailers were not able to identify payment plan customers who were in financial difficulties but not in hardship.

³⁸ Australian Energy Regulator, [Customer Hardship Policy Guideline—Version 1](#), Commonwealth of Australia, March 2019, p 21; Essential Services Commission, [Payment difficulty framework—Final decision](#), Victorian Government, 2017, pp 72–77; and Energy Retail Code (Vic), s 79(1)(e).

customers switching to market offers, the Default Market Offer and Victorian Default Offer reforms have had the effect of bringing down the rates of standing offers from previous excessive levels.

5.5. Conditional discounts less prevalent in all customer groups

Conditional discounts reduce the bills of customers who meet certain conditions, such as paying a bill on time or by direct debit. Conditional discounts are also a way for retailers to manage the risk and associated costs of late payments by encouraging timely bill payments.

However, the ACCC has had concerns with conditional discounts. Excessively large discounts have meant that customers risked much higher payments if they did not fulfil the conditions. Customers experiencing financial difficulties were also the least likely to meet the conditions and therefore were disproportionately affected.³⁹

Reforms to retailer pricing and advertising have made it easier for customers to compare electricity plans, including the price they could be liable to pay if they do not meet any applicable conditions.⁴⁰ New rules which came into effect on 1 July 2020 also protect customers from large penalties if they do not meet their payment conditions by capping conditional fees to reasonable costs or a retailer's cost of debt.⁴¹

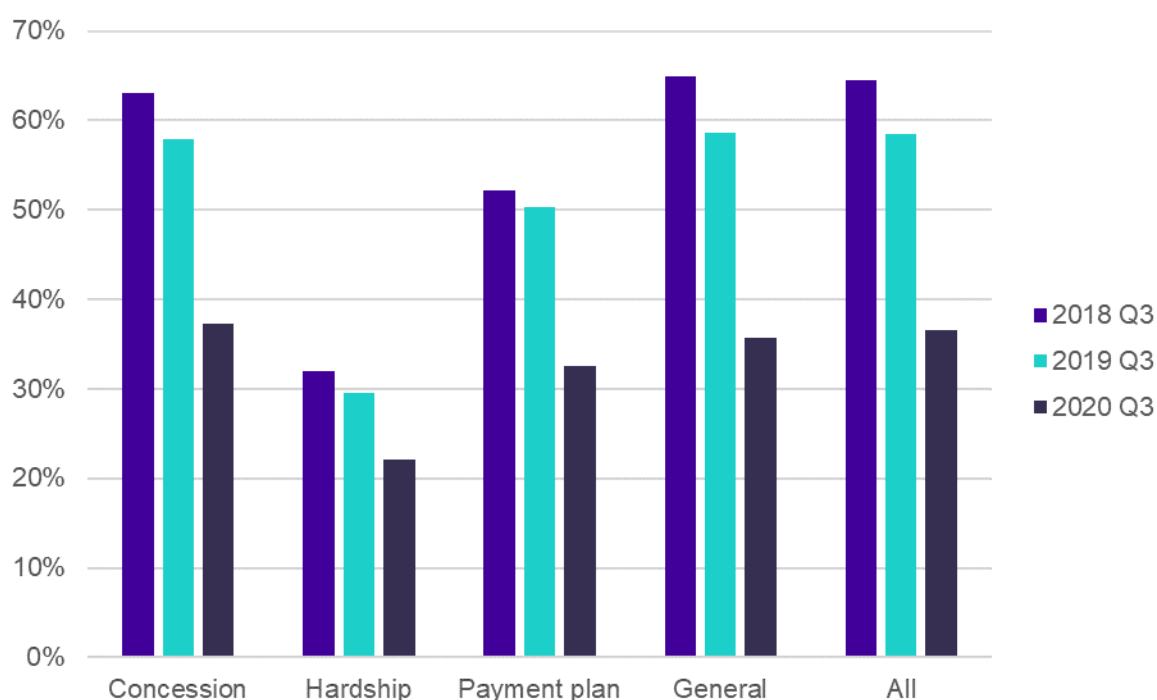
The proportion of residential customers on market offers with conditional discounts has decreased for every customer group between 2018 and 2020 (figure 5.7).

³⁹ Australian Competition and Consumer Commission, [Restoring electricity affordability and Australia's competitive advantage, Retail Electricity Pricing Inquiry—Final Report](#), Commonwealth of Australia, 11 July 2018, pp 257–64.

⁴⁰ Australian Competition and Consumer Commission, [Inquiry into the National Electricity Market—November 2019 report](#), Commonwealth of Australia, 22 December 2019, pp 10–11, 81.

⁴¹ Australian Energy Market Commission, [Regulating conditional discounting – Rule determination](#), Australian Energy Market Commission website, 27 February 2020, accessed 21 April 2021; Essential Services Commission, [Ensuring contracts are clear and fair: Final decision](#), Victorian Government, 28 February 2020, pp 55–62.

Figure 5.7: Proportion of residential market offer customers who have conditional discounts by customer group



Source: ACCC analysis of retailer billing data, all regions combined.

The proportion of customers on conditional discounts decreased to around 37% overall, from 59% in 2019 and 65% in 2018. These decreases align with the significant decrease in the proportion of advertised market offers with conditional discounts reported by the Australian Energy Regulator.⁴² This indicates that changes to the rules on advertising have had an impact on both retailer conduct and customer engagement. It is likely that retailers are either moving customers onto non-conditional discounts or that customers are engaging in the market and selecting non-conditional discount plans.

Hardship customers continue to be much less likely to be on market offers with conditional discounts compared to all other customer groups in 2020, at 22%. This is likely because retailers are required to transfer hardship customers onto offers that minimise their energy costs under the Australian Energy Regulator's binding Customer Hardship Policy Guideline⁴³ and Victoria's Payment Difficulty Framework.⁴⁴ Our results indicate that policies around retailer assistance for hardship customers are yielding positive customer outcomes by reducing the likelihood of these customers being exposed to financial penalties.

Concession and payment plan customers on market offers with conditional discounts significantly decreased by 21 and 18 percentage points to 37% and 33% respectively. We found in September 2020 that many concession and payment plan customers were exposed

⁴² Australian Energy Regulator, [Annual retail markets report 2019-20](#), Commonwealth of Australia, 30 November 2020, pp 48–49.

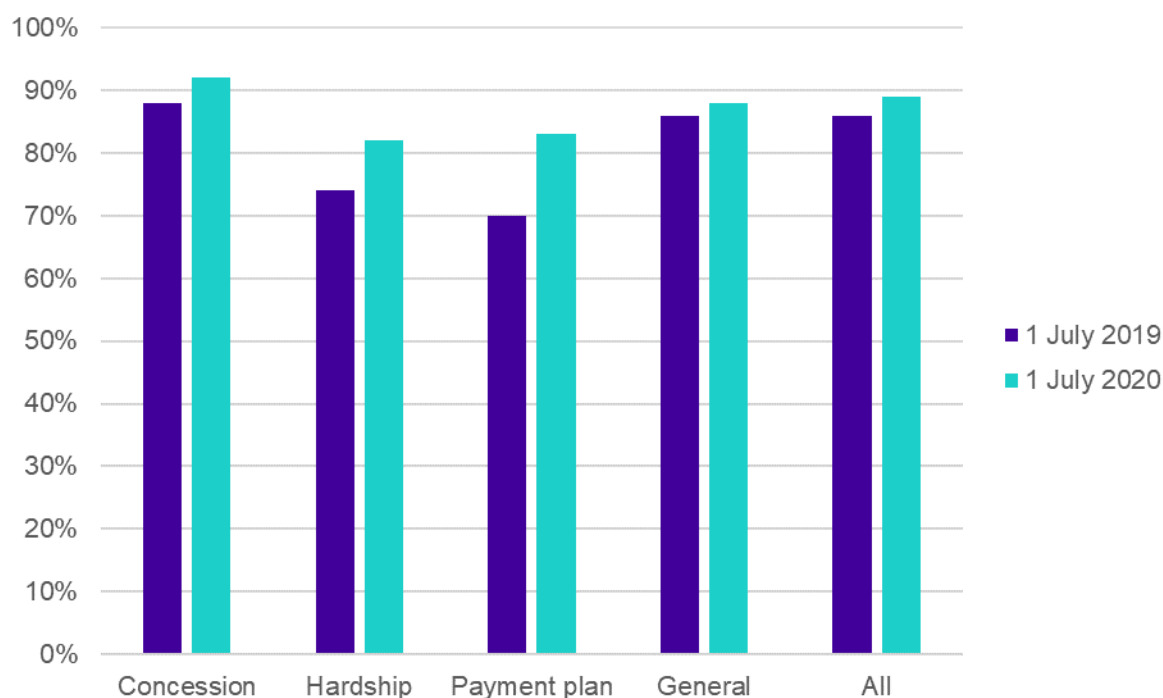
⁴³ Australian Energy Regulator, [Customer Hardship Policy Guideline—Version 1](#), Commonwealth of Australia, March 2019, pp 20–22.

⁴⁴ Essential Services Commission, [Payment difficulty framework—Final decision](#), Victoria Government, 2017, pp 72–77; and Energy Retail Code (Vic), s 79(1)(e).

to the financial risks of missing a conditional discount.⁴⁵ Therefore, the large decreases in proportions of these customer groups on conditional discounts are positive results. However, they were still more likely to be on conditional discounts compared to hardship customers. This may reflect differences in the nature of assistance required of retailers for these customer groups, as compared to hardship customers.

All customer groups experienced an increase in achievement rates of conditional discounts between 2019 and 2020 (figure 5.8).⁴⁶

Figure 5.8: Proportion of residential market offer customers who achieved their discounts by customer group



Source: ACCC analysis of retailer billing data. All regions combined.

Payment plan (up 13 percentage points) and hardship customers (up 8 percentage points) experienced the greatest increases in achievement rates between 2019 and 2020. These increases are positive developments given that hardship and payment plan customers are groups least likely to afford the financial penalty. This result, in combination with the decline in hardship and payment plan customers on conditional discounts, indicates that customers who do not or cannot meet the conditions of their discounts were moving to plans without conditional discounts.

Concession customers continued to have the highest achievement rates, increasing from 88% to 92% between 2019 and 2020.

⁴⁵ Australian Competition and Consumer Commission, [Inquiry into the National Electricity Market—September 2020 report](#), Commonwealth of Australia, 19 October 2020, p 55.

⁴⁶ This analysis uses a point in time approach measuring the proportion of market offer customers who achieved their discounts as at 1 July 2019 and 1 July 2020. This is an improvement in approach from the methodology used in the September 2020 report, which used quarterly period achievement rates. More information on the methodology change can be found in appendix B.

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 25th DAY OF August 2018


SCOTT MORRISON
Treasurer

Appendix B: Methodology for billing data analysis

This appendix describes our methodology for analysing billing data. We describe our approach to data collection, quality assurance, weighting and important rules for our analysis.

Our billing dataset covers residential and small business customers. It does not cover large business customers. A customer is defined as residential or small business based on the distributor tariff or the meter installation type.

Data collection

We obtained billing data from 11 electricity retailers, which collectively supply around 95% of residential customers and 90% of small business customers across Victoria, New South Wales, South Australia and south-east Queensland.⁴⁷ We requested data for every bill issued to customers selected in the residential, small business and targeted samples (described below) between 1 July 2019 and 31 December 2020. This data collection follows on from our September 2020 report, where we collected billing data on residential, small business and targeted samples between 1 July 2018 and 31 December 2019.

The type of data requested for each bill included account and plan details, tariff types, solar rebates, discounts, concessions, bill amounts and usage. We required retailers to indicate whether the customer was in a hardship program or on a payment plan due to financial difficulties. The full details of data requested are in appendix C, and the template we issued to retailers is in appendix D.

For the residential sample, each retailer was required to provide data for a random selection of residential customers. The sample was required to represent 5% of the retailer's customer base in each of the 4 regions or 10,000 customers, whichever was greater. If a retailer's customer base in a region was smaller than 10,000 customers, it was required to provide data for all of its customers in that region.

For the small business sample, each retailer was required to provide data for every small business customer in its customer base during the 18-month period. This is a change in sampling from our previous data collection as part of our September 2020 report, where retailers were required to provide a 5% sample or 10,000 customers, whichever was greater.

For the targeted sample, each retailer was required to provide data for every customer who was in hardship or on a payment plan due to financial difficulties at any point during the 18-month period. Four retailers were only able to provide data for customers who were in hardship or on a payment plan on 1 October 2019 or 1 October 2020 rather than at any time during the 18-month period. This means that there may be some customers missing from the targeted sample for these retailers. However, our checks against the customer numbers reported by the Australian Energy Regulator indicate that the number of missing customers is small.⁴⁸

Table 1 shows the number of customers and corresponding number of bills that were captured through our data collection. Customer numbers are based on the number of unique accounts for each retailer.

⁴⁷ Australian Energy Regulator, [Annual retail markets report 2019-20](#), Commonwealth of Australia, 30 November 2020; and Essential Services Commission, [Victorian Energy Market Report 2019-20](#), Victorian Government, 30 November 2020.

⁴⁸ Australian Energy Regulator, [Annual retail markets report 2019-20](#), Commonwealth of Australia, 30 November 2019.

Table 1: Size of billing data request

| Sample | Region | Customers | Bills |
|----------------|----------|-----------|------------|
| Residential | Victoria | 178,138 | 1,476,065 |
| | NSW | 238,888 | 1,292,217 |
| | SA | 99,146 | 528,844 |
| | SEQ | 125,151 | 708,287 |
| Small business | Victoria | 335,758 | 2,386,842 |
| | NSW | 383,910 | 1,955,090 |
| | SA | 99,185 | 598,307 |
| | SEQ | 118,914 | 683,460 |
| Targeted | Victoria | 202,879 | 1,410,200 |
| | NSW | 315,867 | 1,668,911 |
| | SA | 75,862 | 406,374 |
| | SEQ | 103,728 | 540,250 |
| Total | | 2,277,429 | 13,654,902 |

Quality assurance

We checked the returned data for inconsistencies and errors to ensure its quality for our analysis. For example, we checked that:

- the size of the residential, small business and targeted samples 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 Victoria⁴⁹
- all variables had been provided for all bills
- invoice dates were consistent for a single bill, and did not overlap for consecutive bills for the same customer
- the postcode, distributor and region were consistent with each other
- numerical signs made sense, such as positive usage values
- a bill with a discount or solar rebate amount had corresponding details about the type
- a bill with a conditional discount had corresponding information on whether the discount was achieved.

Our checks identified several significant data quality issues for a number of 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.

We removed bills from the dataset where we could not resolve quality issues. When we did this, we also removed all other bills related to the same customer. This reduced the number

⁴⁹ Australian Energy Regulator, [Annual retail markets report 2019-20](#), Commonwealth of Australia, 30 November 2020; and Essential Services Commission, [Victorian Energy Market Report 2019-20](#), Victorian Government, 30 November 2020.

of customers represented in the dataset by around 2% for the targeted sample, around 3% for the residential sample, and around 8% for the small business sample.

Weighting

We adjusted our residential sample to ensure that it was representative of the overall residential customer base, rather than skewed by some retailers being over or under-represented. We created a new weighted sample where the share of each retailer's residential customer base was the same as the share of each retailer's overall residential customer base. We did not need to do this for the small business or targeted samples as we requested billing data for every customer in these categories.

To create the weighted sample, we took the following steps:

- for each region and retailer we compared the number of customers in our residential sample, after removal of any customers during the quality assurance process, to the retailer's customer base for the entire period from 1 July 2019 to 31 December 2020
- determined which retailer had the smallest percentage share of its customer base, which was 4.3%⁵⁰
- any retailer found to have a higher percentage share of customers in a region was down-sized in the sample by removing customers and corresponding bills through random selection.

Table 2 shows customer numbers in the weighted samples compared to the overall customer base. Note that these figures include customers each retailer served across the entire 18-month period, so are higher than the number of customers served at any single point in time.

Table 2: Customers for 1 July 2019 to 31 December 2020, weighted residential sample

| Sample | Region | Customers in sample | Customer base | Sample share of base |
|-------------|----------|---------------------|---------------|----------------------|
| Residential | Victoria | 142,114 | 3,293,777 | 4.3% |
| | NSW | 178,586 | 4,139,077 | 4.3% |
| | SA | 43,489 | 1,007,951 | 4.3% |
| | SEQ | 78,808 | 1,826,536 | 4.3% |

We used weighted samples to calculate all results for residential customers, with the exception of hardship and payment plan customers. For hardship and payment plan results, we used the targeted sample.

Analytic approach

We analysed the data over the 2018–19 and 2019–20 financial years (1 July to 30 June) and over quarters:

- quarter 1 (1 January to 31 March)
- quarter 2 (1 April to 30 June)
- quarter 3 (1 July to 30 September)

⁵⁰ These differ from the 5% share of customers in our information request in part because weights are calculated after the removal of any accounts during quality assurance.

- quarter 4 (1 October to 31 December).

As retailer billing cycles vary and therefore do not align with these quarter periods, we applied rules to quantitative and qualitative variables to enable analysis. We also applied rules where there was only partial coverage of analysis periods, and for year-on-year comparisons. These details are outlined below.

Quantitative variables

To calculate the amount paid by a customer in an analysis period, we summed the usage, supply, green energy, demand and other charges for all bills that applied to the analysis period. We then subtracted concessions, rebates (including solar feed-in tariff rebates), unconditional discounts, conditional discounts achieved and any other discounts.

If a bill partially overlapped an analysis period, we assigned values based on the number of overlapping billing days. For example, if a bill covered 90 days and 30 of those days overlapped the analysis period, we applied one third of the usage for that bill to the customer's total usage during the period.

Our analysis of prices paid by customers is generally based on effective prices rather than bill amounts. Effective price takes usage into account and presents the underlying rates that customers pay over time and across customer groups. Bill amounts are driven by changes or differences in usage. Given the impact of COVID-19 on customer usage patterns, we have included bill amounts where appropriate.

To calculate the effective price paid by a customer in an analysis period, we divided the amount paid by a customer as described above by the customer's total usage from the grid during the period.

Qualitative variables

To determine which customer group applied to a customer in an analysis period, we checked the status of each qualitative variable for all bills that applied to the period. A customer group such as standing offer, concession, hardship or payment plan was assigned only if all bills applying to the analysis period had that status. For example, if 2 bills applied to an analysis period and one showed that the customer was in hardship and the other did not, then we did not assign the customer to the hardship group for that period.

When assigning customers to the 'general' customer group for comparison to concession, hardship and payment plan groups, we only assign customers who did not have concession, hardship or payment plan status at any time during the relevant analysis period. To calculate the proportion of customers on standing and market offers for an analysis period, we identify standing offer customers as outlined above and assign any remaining customers to the market offer customer group. Therefore our proportions of market offer customers may include a small number of customers who were on a market offer for only part of the analysis period.

Partial coverage of analysis periods

Some customers do not have complete bill coverage of an analysis period. This may be because a customer joined the retailer part way through the analysis period, or because they switched to a different retailer during the period.

The number of customers affected depends on the length of the analysis period (quarterly or yearly). For example, 26% of residential customers have incomplete coverage for some

quarters, and around 37% of residential customers have incomplete coverage for the 2019–20 financial year.

We included these customers in our analysis of the effective price and customer proportions, as many will represent engaged customers who appear for only part of the analysis period because they have actively switched to or from another retailer.

This incomplete bill coverage does, however, artificially lower the usage and bill amounts for the affected customers over the analysis period. In the 2019–20 financial year we estimate that the median usage and bill would have been underestimated by around 20% to 30% if we included customers with incomplete coverage. Therefore, for the purposes of measuring the bill amount and usage, we included only customers with bills covering the entire analysis period.

Year-on-year comparisons

We analyse changes over time by comparing 2018 quarter 3, 2019 quarter 3 and 2020 quarter 3 periods or 2018–19 and 2019–20 financial years, where appropriate. We generally used data collected as part of our September 2020 report to produce 2018 quarter 3, 2019 quarter 3 and 2018–19 results. We used our latest data collection to produce 2020 quarter 3 and 2019–20 financial year results. This ensures consistency in results between reports. For additional analysis that was not undertaken in the September 2020 report, we used the latest data collection to produce both 2019 and 2020 results. The following section provides further details on the types of additional analysis undertaken.

We performed comparisons using quarter 3 data instead of quarter 4 data due to incomplete coverage of quarter 4 data in 2020. Depending on the billing cycle and retailer, bills can be issued over a month after the corresponding invoice period. Our dataset includes all bills that were issued up to the end of 2020, and so does not capture all of the bills that relate to the quarter 4 2020 period. The number of bills in our sample for quarter 4 2020 was around 40% to 50% smaller compared with other quarters in the 18-month period.

When performing year-on-year comparisons between dollar amounts we applied an inflation correction to align with quarter 3 2020 or 2019–20. We multiplied the effective price and bill amounts for quarter 3 2018, quarter 3 2019 and 2018–19 by the Australian Bureau of Statistics estimate of year-on-year growth in the Consumer Price Index.⁵¹

Additional analysis

We have undertaken additional analysis relating to:

- point in time achievement of conditional discounts
- point in time solar customer proportions
- solar rebate and bill outcomes for negotiated and premium feed-in tariff customers
- standing offer customer outcomes in different geographic areas
- effective prices paid by payment plan customers after adjusting for usage
- effective prices paid by market offer customers after adjusting for usage and rebates.

Point in time achievement of conditional discounts

We have refined our method for calculating the achievement of conditional discounts to a point in time approach instead of defining it over quarterly periods. We changed our

⁵¹ ABS, *Consumer Price Index, Australia, June 2020*, Table 1.

approach due to issues obtaining accurate achievement of conditional discount information for the end of the quarter 3 2020 period from a particular retailer.

This new approach provides a more accurate estimate of achievement rates. Previously, we required customers to have achieved all their conditional discounts over the relevant period to be classified as having achieved their conditional discounts for that quarter. For instance, if a customer received 3 bills in quarter 3 2019 and achieved their conditional discounts for only 2 bills, we would classify them as having failed to achieve their conditional discounts for that quarter. For this report, we measured the conditional discount achievement rates as at 1 July 2019 and 1 July 2020. This means that if a customer achieved their conditional discount for a bill as at 1 July 2019, they would be classified as having achieved their conditional discounts for that point in time.

We compared point in time rates at 1 July 2019 to quarter 3 2019 rates from our previous 2018–19 billing dataset to ensure robustness of this new method. The results were largely consistent, with some variance in small business achievement rates likely attributable to our more comprehensive small business sampling approach.

Point in time solar customer proportions

Similar to the change in approach for achievement of conditional discounts, we have refined our methodology for calculating proportions of solar customers by using a point in time approach instead of defining solar customers over quarterly periods. This change in approach was implemented to provide a more accurate snapshot of solar uptake.

In our September 2020 report, a customer had to be a solar customer for an entire quarter to be classified as a solar customer. That is, if a customer acquired solar panels halfway through a quarter, they would not be considered a solar customer for that quarter. For this report, we took a snapshot at 1 July 2020 to estimate the proportion of solar customers in the dataset at that date.

We compared point in time solar customer proportions at 1 July 2020 to quarter 3 2020 proportions from our current billing dataset to validate the robustness of this new method. The results were largely consistent, with point in time proportions being slightly higher than proportions measured over a quarter.

Solar rebate analysis

We undertook a new type of solar rebate analysis in this report. We analysed solar feed-in rebate amounts, feed-in supply amounts and effective feed-in rates for negotiated and premium feed-in tariff solar customers across quarter 3 2019, quarter 3 2020 and 2019–20.

Similar to the way we calculated bill amounts and usage, only accounts with complete bill coverage across the relevant analysis periods were included in this analysis. Additionally, only customers who were solar customers for the whole analysis period and had a feed-in supply amount were included. This is to ensure that feed-in rebate and supply amounts are representative of what a median solar customer receives and exports.

We calculated the feed-in tariff rate by dividing the total feed-in rebate by total feed-in supply. We used the feed-in tariff rate to separate negotiated feed-in tariff solar customers from premium feed-in tariff solar customers. Negotiated feed-in tariff solar customers are defined as those who received a feed-in tariff rate of 30 c/kWh or less, while premium feed-in tariff solar customers are defined as those who received more than 30 c/kWh. This threshold

was chosen as it effectively distinguishes generous legacy state feed-in tariff rates from more recent negotiated rates.⁵²

Standing offer geographic analysis

We combined customer postcode information we collected in our billing data with Australian Bureau of Statistics geographic information to better understand whether standing offer customers were more likely to be located in certain geographic areas such as metropolitan or non-metropolitan areas. This new type of analysis utilises the Australian Bureau of Statistics' 'remoteness area' information to assign customers into geographic regions of:

- major cities of Australia
- inner regional Australia
- outer regional / remote.

Where a postcode falls into more than one remoteness area, we assigned that account to the remoteness area that has the greatest overlap with the postcode.⁵³ We removed a small number of accounts with postcodes that do not match any remoteness areas. For each region and remoteness area combination, we calculated the proportion of standing offer customers for the quarter 3 2020 period.

Remoteness area

Remoteness area is a classification used by the Australian Bureau of Statistics to denote a location's level of access to essential services, as indicated by its average road distance to the nearest area of concentrated urban development.⁵⁴

Each remoteness area has an average Accessibility/Remoteness Index of Australia score ranging from 0 to 15, which reflect high to low accessibility to essential services respectively. For example, major cities (such as Melbourne) have lower Accessibility/Remoteness Index of Australia scores than inner regional areas (such as Gippsland) due to their larger population sizes and relatively small distances from services.

Our analysis groups the 'outer regional Australia', 'remote Australia' and 'very remote Australia' remoteness areas under a single broader category titled 'outer regional / remote', due to their small population sizes compared to the 'inner regional' and 'major cities' areas.

Effective prices paid by non-solar payment plan customers by usage band

We undertook new analysis to test whether payment plan residential customers paid higher effective prices than hardship customers after adjusting for usage effects in quarter 3 2020. This is to account for payment plan customers generally using less electricity than hardship customers, which has the potential to increase their effective prices paid as the fixed cost of a customer's bill is spread across less units of electricity.

For this analysis, we only used non-solar accounts to remove any solar rebate effects from the findings. Daily usage rates were calculated for each account by dividing the total usage for the analysis period by the number of supply days. Accounts were then grouped according

⁵² Queensland Government, [Solar Bonus Scheme 44c feed-in tariff: How to maintain your eligibility](#), Queensland Government website, last updated 6 March 2018, accessed 5 May 2021; Victorian Government, [Premium feed-in tariff](#), Victorian Government website, last updated 26 March 2020, accessed 4 May 2021; South Australian Government, [Solar feed-in payments](#), South Australian Government website, last updated 27 November 2018, accessed 4 May 2021.

⁵³ The average overlap ratio between postcodes in our dataset and Remoteness Areas is 0.98.

⁵⁴ These are defined as areas with a population of 200 people or more. Australian Institute of Health and Welfare, [Remoteness classification \(ASGS-RA\) N](#), Australian Institute of Health and Welfare website, 2019, accessed 30 March 2021.

to daily usage bands in increments of 5 kWh (0-5 kWh to 40+ kWh). For instance, all accounts with daily usages between 5 kWh and 10 kWh were grouped together.

The median effective price for each usage band was calculated, by customer group and region. We used the targeted sample to calculate effective prices for non-solar payment plan and non-solar hardship customers. For general non-solar residential customers and non-solar residential customers overall, we used the weighted residential sample.

Effective prices paid by market offer customers by usage band without concession payments

We produced market offer effective prices without government concessions and grouped accounts into usage bands to assist in the comparison of changes in residential median market offer prices paid and changes in supply costs (tables 3.4 and 3.5 in the report).

Removing government concession payments provided a more relevant measure of what retailers actually charge customers for this comparison against supply cost changes. We did this by removing the 'total concessions' credits from the calculation of effective prices. In the case of south-east Queensland, however, the Queensland Government's COVID-19 economic relief payments could not be excluded even with the removal of 'total concessions' credits. For this reason, we have excluded south-east Queensland from tables 3.4 and 3.5 and associated analysis.

Grouping accounts by usage bands assists in reducing the impacts of COVID-19 related changes to usage between 2018–19 and 2019–20. Increased residential usage between 2018–19 and 2019–20 reduced effective prices paid as the fixed cost of a customer's bill is spread across more units of electricity. For small businesses, decreased usage had the opposite effect and increased the effective prices paid.

To account for this, we calculated daily usage rates for each residential market offer account by dividing the total usage for each year by the number of supply days. Accounts were then grouped according to daily usage bands in increments of 5 kWh (0-5 kWh to 40+ kWh). We did this for both 2018–19 and 2019–20.

We then selected usage bands that were likely to be representative of the average market offer residential and small business customer. For residential customers, we selected the 10-15 kWh usage band. This usage band was selected as it is representative of what the median residential market offer customer would use in a year (4,830 kWh). For small business customers, we selected the 40+ kWh usage band as the usage band had the highest proportion of customers. We calculated the changes in price between 2018–19 and 2019–20 within the selected usage bands for each region and customer type.

Appendix C: Billing data definitions

The table below describes the data for each customer bill that retailers were required to provide in their response to our information request.

| Data | Description |
|-------------------------------|---|
| Company Name | retailer name |
| Account Number | unique customer identifier for billing purposes |
| State | state in which electricity was supplied (Victoria, New South Wales, South Australia or south-east Queensland) |
| Postcode | postcode in which electricity was supplied |
| NMI | National Metering Identifier, the unique identifier for the connection point to the grid |
| Bill Issue Date | date the bill was issued |
| Invoice Date From | first day of the billing period (inclusive) |
| Invoice Date To | last day of the billing period (inclusive) |
| Offer Start Date | first day that electricity was supplied to the customer for the offer that applied to the bill |
| Offer End Date | last day that electricity was or will be supplied to the customer for the offer that applied to the bill |
| From Different Retailer (Y/N) | whether the customer was with a different retailer in the previous billing period |
| Distributor | distributor corresponding to the state and postcode in which electricity was supplied |
| Smart Meter (Y/N) | whether the customer had a device that digitally measures energy use, also known as an advanced meter or 'type 4' meter |
| Hardship Customer (Y/N) | whether the customer participated in the retailer's hardship program at the invoice end date, or received hardship assistance during the billing period |
| Payment Plan Customer (Y/N) | whether the customer had an arrangement to pay the retailer in instalments (not including flexible arrangements for convenience or budgeting) at the invoice end date |
| Solar Customer (Y/N) | whether the customer was on an offer that included a premium feed-in tariff or negotiated feed-in tariff payment |
| Dual Fuel Customer (Y/N) | whether the customer also had a gas account with the retailer at the location where electricity was supplied |

| | |
|-----------------------------------|---|
| Offer Type (Market/Standing) | whether the customer was on a market or standing offer during the billing period, as defined by the National Energy Retail Law in New South Wales, South Australia and south-east Queensland and the Energy Retail Code (Vic) |
| Contract Term (Months) | number of months over which the offer applies |
| Plan ID | Energy Made Easy or Victorian Energy Compare identifier for the offer |
| Other ID | unique identifier for an offer if a Plan ID is not provided |
| Plan Name | name of the offer |
| Flat Tariff (Y/N) | whether the offer charges the same price for electricity regardless of the time of day |
| Controlled Load Tariff (Y/N) | whether the offer charges a separate price that applies to one or more appliances that are separately metered |
| Time of Use/Flexible Tariff (Y/N) | whether the offer charges different prices depending on the time of day |
| Demand Tariff (Y/N) | whether the offer includes additional demand-based charges on top of any usage charges |
| Subscription Plan (Y/N) | whether the offer charges a fixed amount each period to cover for a specified amount of electricity |
| Premium FiT (Y/N) | whether the offer includes a payment to the customer for electricity generated from solar panels and fed into the grid at a premium solar scheme rate |
| Negotiated FiT (Y/N) | whether the offer includes a payment to the customer for electricity generated from solar panels and fed into the grid at a negotiated or state-mandated minimum rate |
| Conditional Discount Type | description of the condition that must be met for the conditional discount to be applied, such as paying a bill on time or by direct debit, and having both an electricity account and a gas account with the retailer |
| Unconditional Discount Type | description of the reason that an unconditional discount was applied, such as a special promotion applying at the time of signing up |
| Total Usage (kWh) | total amount of electricity that the customer consumed from the grid during the billing period |
| Total Solar Feed-in Supply (kWh) | total amount of electricity that the customer supplied to the grid during the billing period by the solar system attached to the location where electricity was supplied |
| Total Supply Charge (\$) | total fixed costs charged regardless of the amount of electricity the customer consumed from the grid (excluding goods and services tax) |
| Total Usage Charge (\$) | total variable costs charged based on the amount of electricity the customer consumed from the grid (excluding goods and services tax) |

| | |
|--|---|
| Total Conditional Discounts (\$) | total conditional discounts that could have applied to the bill if all conditions were met (excluding goods and services tax) |
| Total Conditional Discounts Applied (\$) | total conditional discounts that were applied to the bill (excluding goods and services tax) |
| Achievement of Conditional Discounts (Y/N) | whether all conditional discounts that could have applied to the bill were applied |
| Total Unconditional Discounts (\$) | total unconditional discounts that applied to the bill (excluding goods and services tax) |
| Total Concessions (\$) | total concessions that applied to the bill (excluding goods and services tax) |
| Total Solar FiT Rebate (\$) | total amount of negotiated feed-in tariff and premium feed-in tariff payments that applied to the bill (excluding goods and services tax) |
| Demand Charges (\$) | additional charges that applied to the bill in relation to a demand tariff (excluding goods and services tax) |
| Green Energy Charges (\$) | additional charges relating to a green energy scheme, such as GreenPower (excluding goods and services tax) |
| Other Charges (\$) | additional charges that are not captured by any other defined categories, including credit card fees, paper bill fees, or applicable bill corrections that increase the amount required to be paid (excluding goods and services tax) |
| Other Discounts (\$) | additional discounts or rebates that are not captured by any other defined categories, including any applicable bill corrections that reduce the amount required to be paid (excluding goods and services tax) |
| Total Current Balance (\$) | total amount owed by the customer as at the bill issue date (excluding goods and services tax) |
