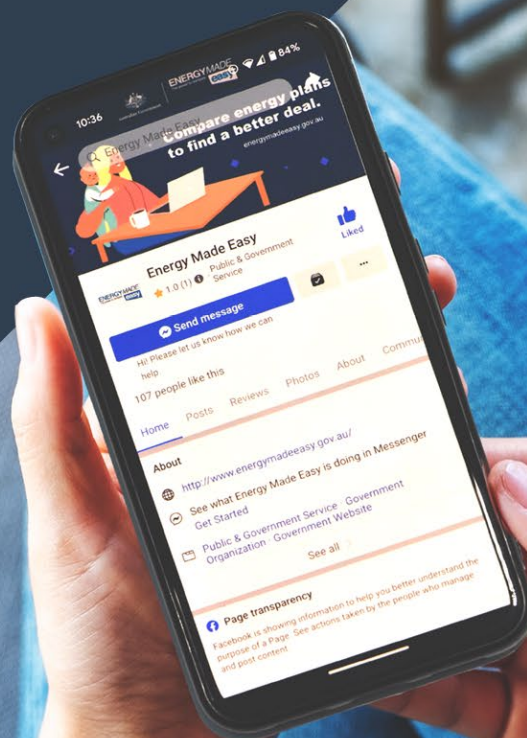


Annual retail markets report 2021–22



November 2022

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Executive summary

Energy prices have risen sharply

Retail electricity and gas prices have risen significantly this year. Most customers have faced double digit price rises in their electricity and gas contracts, with increases of 9% to 20% for electricity and 7% to 15% for gas across electricity and gas distribution networks from June to September 2022.¹ Some customers could save money by switching to a different contract, but even well-informed customers are paying significantly more for energy than they did 2 years ago.

Higher prices have been driven predominantly by surging wholesale energy costs. Retailers paying these costs are then passing them on to their customers. Other costs impacting retail prices, such as network and environmental charges, have been relatively stable over the past 2 years.

Wholesale costs have risen due to a ‘perfect storm’ of international and domestic pressures. These pressures include more frequent and longer outages of aging coal generation plant, rising costs to maintain power system security, extreme weather affecting supply in NSW and Queensland, slowing investment in new generation capacity and global pressures on coal and gas prices linked to factors such as the war in Ukraine. These pressures are covered in more depth in our [Wholesale markets quarterly reports](#)², [State of the energy market reports](#)³ and [Wholesale electricity market performance monitoring – 2022 focus paper](#)⁴ to be published in December 2022.

Rising wholesale costs led to a rise in the [2022–23 Default market offer](#) (DMO) – a cap set by the AER on regulated ‘standing offer’ electricity prices, which also acts as a benchmark for market offers. Overall, the DMO rose in real terms by between 1.7% and 12.1% for residential customers and by 0.2% to 13.5% for small business customers, with outcomes varying by region. Retailers reacted to the higher DMO by increasing their market offer prices over the past few months. The AER does not set the price for Victoria, where average annual bills for customers on standing offers rose by around 5% in 2022–23.

Support from COVID-19 pandemic is being phased out

The economic impact of the COVID-19 pandemic increased financial stress for many energy customers. To support households at the start of the COVID-19 pandemic, the AER introduced temporary assistance measures to be provided by energy businesses through the AER’s *Statement of Expectations of energy businesses (SoE)*.⁵ Developed in consultation

¹ Median retail offer prices rose by 7% to 34% for electricity contracts and by 9% to 25% for gas contracts over this period. Outcomes varied depending on where a consumer lives and how much energy they use. See section 2 of this report.

² AER, [Wholesale markets quarterly reports](#), AER, published quarterly from November 2019.

³ AER, [State of the energy market](#), AER, published annually from 2007 to 2022.

⁴ AER, [Wholesale electricity market performance monitoring - 2022 focus paper](#), AER, 2021.

⁵ Statement of Expectations, AER, [Statement of Expectations of energy businesses: Protecting customers and the energy market during COVID-19](#).

with energy businesses, consumer organisations and market bodies, these measures were phased out in 2022 as stay-at-home orders reduced across NEM jurisdictions.

The success of these measures was evident in the proportion of customers in debt decreasing in 2021–22 from the two previous years, or that the COVID-19 pandemic did not lead to a spike in the average debt of residential customers over the 2017–18 to 2021–22 period. Further, the *SoE* significantly decreased the number of electricity disconnections in the 2019–20 to 2021–22 period, minimising the disruption on energy customers experiencing financial stress.

As mentioned, these measures were phased out in 2022 and we expect that a number of these metrics will worsen in the immediate future as the rising wholesale costs are reflected in a customer's energy costs.

Savings are harder to find

There are 2 main types of offers available to consumers:

- standing offers – a basic service containing standardised terms and conditions
- market offers – a more flexible product that can involve discounts or other additional benefits, terms, and conditions to attract customers.

Historically, standing offers have been priced higher than market offers. However, some market offers are now priced above standing offers and large discounts or savings for customers are much less common. This poses a new challenge for customers – taking up a retailer's market offer no longer guarantees receiving their cheapest deal. However, potential savings are available for customers who can navigate the information provided by retailers and price comparator websites. In September 2022 a customer moving from a standing offer to the cheapest market offer could have reduced their annual electricity costs by up to \$404 in NSW, \$120 in south-east Queensland, \$122 in South Australia, \$193 in Victoria and \$345 in the ACT. But these savings varied by where a customer lived, which retailer and plan they switched to and how much energy they consumed.⁶

Retailers have also faced difficulties

Retailers have faced their own difficulties in this challenging market environment. Retailers have found it harder to hedge their exposure to volatile wholesale costs due to a lack of available financial contracts being offered in the secondary markets. Smaller retailers that do not own generation assets are particularly exposed. Retailers integrated with generators can manage risk internally by balancing higher retail costs against higher generation earnings. The AER estimates that many of the hedging contracts held by small retailers with no generation assets will mature in 2023, leaving those businesses more exposed to volatile costs.⁷

In 2022 a number of retailers asked their customers to switch to another retailer and some were actively turning away customers. Several retailers failed in 2022, affecting approximately 20,000 customers. The AER administered arrangements for a smooth

⁶ AER estimates derived from Energy Made Easy data.

⁷ Unpublished financial information collected by the AER from a number of small retailers.

transition to a new retailer for affected customers to prevent any loss of power supply. Increased wholesale energy prices will also expose retailers to a greater risk of increased customer bad debt. As consumer-facing energy businesses, retailers are the market participants who bear the risk that customers cannot afford to pay their bills. This may result in further retailer failures, which may adversely impact a customer's experience or the depth of retail competition available.

The burden on consumers

All consumers experience the burden of rising energy costs, but this burden falls unevenly. A range of factors can increase a person's vulnerability to rising energy prices. The impact of a bill increase is particularly acute for low-income earners. Low-income households spend around double the percentage of their disposable income on energy compared with average income households. This is explored in greater detail in section 2.

The historic impacts of the COVID-19 pandemic, combined with recent inflation and increases in interest rates, have changed economic circumstances, and imposed financial stress on many energy customers, especially after COVID-19 pandemic-related government support was removed.

The combined impact of higher energy prices, with the removal of COVID-19 pandemic-related government support has forced more customers into energy debt, and often rising debt. This had led to the average debt of customers on hardship programs rising and around one-quarter of customers entering electricity hardship programs with over \$2,500 in debt.⁸ This situation resulted in an 11.7% rise in the number of customers on hardship programs in the year to 30 June 2022 (although this number was lower than pre-pandemic levels).

Taking a longer-term perspective, over the past 4 years:

- average debt for consumers not receiving hardship support rose by 56% to \$999
- average debt on entry to electricity hardship programs rose from \$1,092 to \$1,690
- the number of electricity hardship customers rose from 59,654 to 73,611
- the number of consumers repaying energy debt increased from 147,261 to 170,547.⁹

This is translating into poor outcomes including disconnections, underconsumption of energy and failed payment plans. In 2021–22 more disconnections occurred than a year earlier as the *SoE* was phased out and retailers reverted to pre-COVID-19 debt management policies. Where disconnection occurred, customer debt levels at the time of disconnection were higher than a year earlier, indicating that retailers may not be promptly engaging with customers in debt.

However, the indicators noted above, and the findings and analysis contained within this report, suggest that the energy system is struggling to support consumers who are

⁸ Retail performance data over the 2021-22 period showed an 11.7% increase in hardship customers, a 6.7% increase in average debt on entry into hardship programs and a 2.7% increase of average debt while on hardship programs. AER, Retail Market Performance Data Q4 2021-22.

⁹ AER, *Retail Market Performance Data Q4 2021-22*, AER, 2022.

experiencing vulnerability. We anticipate that many of the metrics and indicators presented in this report will likely worsen because of rising wholesale gas and electricity costs observed in 2022. Rising wholesale energy costs will flow through to retail customers and further exacerbate the poor outcomes being experienced by them.

Although their control over prices may be limited, retailers have opportunities to make a difference for consumers. Increased engagement with consumers on debt levels and prompt identification of hardship customers could decrease the number of customers experiencing payment difficulties or being disconnected for non-payment, while also decreasing retailers' overall energy debt. This would benefit retailers, by decreasing the cash flow and profitability impacts from customer bad debt.

Addressing the challenges of rising customer debt requires a concerted effort on behalf of all actors – policy makers, regulators, retailers, advocacy groups and consumers.

A better system is needed

In October 2022 we launched our first strategy to reduce the barriers Australians face in trying to get what they need from the energy market. [*Towards energy equity – a strategy for an inclusive energy market*](#) identifies 15 actions we will pursue over the next 3 years to meet 5 core objectives; improve identification of vulnerability, reduce market complexity, remove barriers to participation, increase protections and improve affordability for all consumers by reducing retailers' cost to serve customers.¹⁰

One of our actions is to advocate for market-wide 'game changer' reforms to meet these 5 core objectives. The 'game changer' reforms aim to balance the costs and risk within the market so that consumers experiencing vulnerability are identified early and get the appropriate support that leads to improved outcomes.

We recognise that outcomes for consumers experiencing vulnerability have not improved despite meaningful efforts being made by the market to address the issue. Retailers have increased their efforts to assist consumers experiencing vulnerability and significant funds and resources are being invested by governments to identify opportunities for improvement and increase concessions and rebate programs.

¹⁰ AER, [*Towards energy equity – a strategy for an inclusive energy market*](#), 20 October 2022

Recent events and market volatility impact on retailers

Three RoLR notices issued during 2021–22

The *National Energy Retail Law (South Australia) Act 2011 (National Energy Retail Law)* contains provisions for a national retailer of last resort (RoLR) scheme. The RoLR scheme is designed to ensure that, in the event of retailer failure, arrangements are in place to ensure that customers continue to receive electricity and/or gas supply. The AER has certain responsibilities under the RoLR scheme.¹¹

There is a RoLR scheme in Victoria, but it is not administered by the AER. This is the responsibility of the Essential Services Commission (ESC).

In the 4 years prior to 2021–22 there were 2 RoLR events. In 2021–22 there were 4 RoLR events which resulted in 3 RoLR notices being issued, including:

- electricity retailers in the National Energy Consumer Framework (NECF):
 - Enova Energy – impacting approximately 13,300 customers across Queensland and NSW
 - Pooled Energy – impacting approximately 1,300 customers across NSW
 - Apex Energy Holdings – which served off-market embedded network customers so the customers could not be transferred through a RoLR event. An authorised retailer entering external administration is a RoLR event under the *National Energy Retail Law*. The AER carefully monitored the situation, including continuity of supply to affected customers, and ultimately decided not to issue a RoLR notice following advice that the retailer had exited external administration.
- gas retailer in the NECF:
 - Weston Energy – impacting approximately 1,300 predominately large customers across the ACT, NSW, Queensland, and South Australia.

The customers were transferred to the default RoLR for the customer's distribution network (that is, ActewAGL, Origin Energy, AGL, Energy Australia and Aurora Energy).

The retail authorisations for Pooled Energy and Weston Energy were revoked by the AER on 24 May 2022, and Enova Energy's authorisation was revoked on 22 June 2022. Since July 2022, a further 4 retailers have failed, affecting approximately 3,900 customers. The effects of these 4 failures will be discussed in further detail in the 2022–23 report.

Effect of energy market volatility on retailers buying energy

Recent price increases and volatility in the NEM wholesale market for electricity and gas are driven by volatility in the energy spot market and forward contract prices.

¹¹ AER, [AER Retailer Failure](#), AER website, 2022, accessed 28 November 2022

In the wholesale market, there are 2 ways to sell and buy electricity: the spot market and the contract market.¹² The spot price market is operated by the Australian Energy Market Operator (AEMO) who ensures that the supply of energy from generators matches with the energy consumption of customers. All electricity in the spot market is bought and sold at the spot price. Households and small businesses buy electricity from retailers, not the wholesale market.

The contract market can involve retailers and generators contracting directly in over-the-counter (OTC) markets or through the forward contract market by trading electricity futures products in exchange traded markets (through the Australian Securities Exchange (ASX) or FEX Global (FEX)). To manage their financial risks and have more certainty over energy prices, retailers use the contract market to enter into various wholesale hedging contracts. These contracts, which are often facilitated by energy contract brokers or market intermediaries, enable a retailer to smooth their energy costs.

Wholesale energy contracts smooth energy costs, by reducing a retailer's exposure to the highs and lows of the spot market, allowing them to offer stable retail prices to customers. However, in periods of high volatility, generators, energy contract brokers or market intermediaries may not be able to offer the same level of wholesale hedging contracts to retailers.

Recently, the volatility in the wholesale energy market has led to some energy market intermediaries either withdrawing their services to new retailers or removing their services from the market altogether. The withdrawal of these services limits the ability of retailers to trade in the forward contract markets. This may limit retailers to OTC markets or prevent retailers from finding suitable wholesale hedging contracts.

Without wholesale hedging contracts, retailers will be more exposed to the spot price and will not be able to smooth their costs to offer retail prices to customers. For some retailers this may force changes to their business strategy or risk profile because they are not able to mitigate against the financial risks caused by the highs and lows of the spot market. There will also be an impact on retailers' cash positions, which have already been affected by the recent higher energy spot price and forward contract prices.

Effect of energy market volatility on retailer resilience

The higher energy spot price and forward contract prices will need to be managed by retailers. In the short term, the higher spot price will increase cash outflows on consumption, which is not hedged through wholesale energy contracts. In the longer term, retailers will need to replace current wholesale energy contracts with either higher priced forward contracts or be exposed to the spot price.

The impact of higher energy prices driven by market volatility will differ among retailers. Retailers that are owned by companies with generation assets will have a 'natural hedge'

¹² Australian Energy Market Commission (AEMC), [AEMC - spot market and the contract market](#), AEMC website, 2022, accessed 28 November 2022

against this volatility. However, this is not available to smaller retailers that don't have generation assets.

Financial information collected by the AER from a number of small retailers with no generation assets demonstrated that approximately 70% of the value of the wholesale hedging contracts will mature before June 2023, with 90% maturity before December 2023. For these retailers, increases in the cost of the spot market energy for unhedged load or higher priced wholesale energy contracts will lead to higher cash outflows, which won't be passed on immediately to consumers. Further, any subsequent pass through may be constrained by competitive tension between retailers and when retail prices can change.

Increased customer debt driven by higher energy prices will also impact retailers. As debt ages, retailers will experience higher bad debt expenditure and a decrease in cash inflows from customers. We expect this will be exacerbated by customers dealing with other cost-of-living pressures and, as noted in the [Towards energy equity – a strategy for an inclusive energy market](#), retailers will be required to provide effective tailored assistance to customers facing payment difficulty.

We anticipate that the net effect of higher energy prices and customer debt will impact a retailer's cash position and risks of potential liquidity or solvency issues. This may increase the risk of retail failure through a RoLR event, leading to customer disruption and a potential decrease in the number of market offers available to customers.

DMO increases driven by wholesale cost rises

The AER released its fourth DMO (DMO 4) determination on 26 May 2022. Consistent with previous determinations, the DMO prices continued to target objectives of protecting customers from unjustifiably high standing offer prices, while allowing retailers a sufficient margin to enable them to recover the efficient costs of providing services and incentivising market participation by consumers and retailers.

For DMO 4 the AER undertook a comprehensive review of the DMO methodology, with the intention of keeping the new methodology in place up to the conclusion of DMO 6 for 2024/25. Following extensive consultation, the AER decided to implement a different methodology to previous determinations, using a cost build-up approach. This methodology allowed for more transparency and consistency between regions by separately calculating retail costs and setting a retail allowance for the DMO objectives and allowing retailers to recover a reasonable margin. The DMO 4 also used a slightly less conservative approach to wholesale cost forecasting.

The AER published its determination in May 2022. Compared with 2020–21, DMO 4 prices have increased for standing offer customers in all regions in real terms, ranging between 1.7% to 12.1% for residential customers and 0.2% to 13.5% for small business customers.¹³ Section 2 of this report examines price changes in 2021–22.

¹³ In nominal terms these were between 7.2% and 18.3% for residential customers and 5.7% and 19.7% for small business customers.

The key drivers of price changes in the DMO include falling costs for both networks and environment schemes along with rising wholesale costs. Wholesale costs were forecast to rise in all regions due to the slowing of investment in new capacity, a reduction in thermal generation and higher coal and gas costs, and increasingly ‘peaky’ demand driving up the cost of hedging for retailers. Other factors contributing to the determination included the:

- impact of the unplanned outages of generation as well as additional costs to maintain system frequency (in south-east Queensland)
- system security interventions (in South Australia)
- extreme weather in NSW and Queensland
- global factors such as the ongoing war in Ukraine, which has led to significant pressure on coal and gas prices globally.

In November 2022, the AER released an issues paper on the 2023–24 DMO for consultation,¹⁴ with submissions due by 30 November. The AER is considering refinements to the methodology established in DMO 4 to ensure the DMO continues to meet the policy objectives.

Update on the Victorian Default Offer

The ESC’s May 2022 decision for the [2022–23 Victorian Default Offer](#) (VDO) price determination led to an average annual bill increase for customers on standing offers of approximately 5% for residential customers and small business customers (when compared with the prices for the 2020 VDO). The main reason for the increase is a forecast rise in wholesale electricity costs, reflecting recent changes in market conditions and rising energy prices.

Market volatility affecting price regulated regions

Price regulation has been applied across the ACT, Tasmania, and regional Queensland. Regulated price caps apply to standing offers for ActewAGL in the ACT and Aurora Energy in Tasmania, while in regional Queensland Ergon Energy offers a regulated price that all other retailers can compete below.

As a result of market volatility, several retailers have priced their market offers significantly above standing offers in most distribution areas. Market offers also experienced a price spike in all non-price regulated jurisdictions¹⁵ in the 3 months to September 2022.

Although the price regulated regions are less likely to see the same significant ranges in prices offered by retailers from the market volatility, the potential savings for customers are also lower. As such, most customers in those regions generally remain on standing offers. Further discussion of electricity and gas prices can be found in section 2.

¹⁴ AER, [Default market offer prices 2023-24 - Issues paper](#), AER, 2022.

¹⁵ We also observed price increases in market offers in Tasmania, but only 4.8% of customers are on these market offers.

1 Market overview

Key findings

- The majority of Tier 1 retailers and primary regional retailers lost market share to other retailers in 2021–22. Despite this, Tier 1 retailers still maintain more than 75% of each jurisdiction’s overall market share.
- The overall proportion of residential customers and small business customers on market contracts increased for both electricity and gas.
- Switching rates for electricity customers have increased in all jurisdictions in 2021–22. However, gas switching rates have slowly declined.

In this section we report on:

- market structure and competition in the retail energy market
- the proportion of residential and small business customers on market and standing offer contracts
- customers switching between retailers (includes Victorian data).

We use this information to inform our views in other sections of consumer outcomes in the retail market resulting from overall changes to competition and market trends.

1.1 Market structure

1.1.1 Tier 2 retailers’ market share and overall customer numbers continue to grow

Throughout our analysis, we categorise retailers as Tier 1 retailers, primary regional retailers, or Tier 2 retailers.

- **Tier 1 retailers** comprise Origin Energy, AGL and EnergyAustralia, which collectively service the majority of retail customers in New South Wales (NSW), South Australia and south-east Queensland.¹⁶ Between them, these retailers acquired the initial customer base in each jurisdiction when retail energy markets were deregulated.
- **Primary regional retailers** comprise Ergon Energy in Queensland, ActewAGL in the Australian Capital Territory (ACT) and Aurora Energy in Tasmania. These government-owned retailers each largely operate within only one distribution area, where they hold the highest market share and are subject to differing forms of price regulation.¹⁷
- **Tier 2 retailers** are all other retailers. These range from small operators with few customers to larger operators such as Alinta Energy and Red Energy.

¹⁶ Victorian data is not included, because the National Energy Consumer Framework (NECF) is not adopted in Victoria.

¹⁷ ActewAGL is a 50:50 joint venture between Icon Water Limited (ACT Government owned corporation) and AGL Energy Ltd.

Other groupings of small, medium, and large retailers have also been used in section 1.1.2 to further assess changes to market share and customer numbers in the residential electricity and gas markets.

Analysis on market share and customer numbers presents outcomes from NSW, Queensland, South Australia, the ACT and Tasmania.

Residential customer numbers

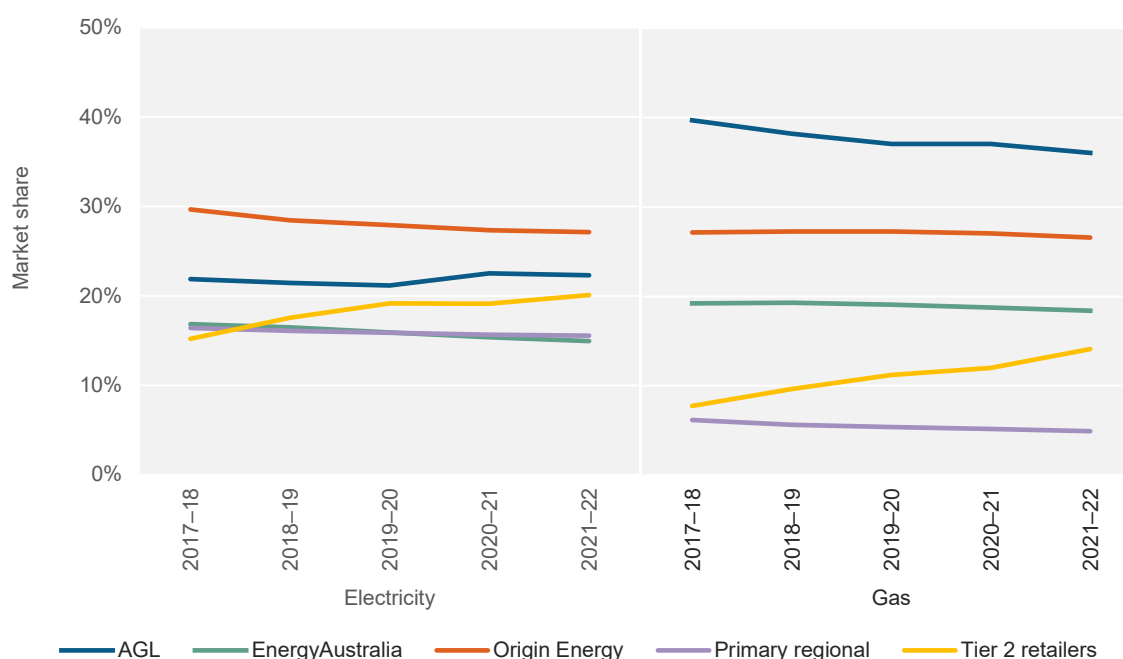
In 2021–22, 58 retailers¹⁸ supplied electricity to 6,732,194 residential customers.

Tier 2 retailers continued to experience growth in market share in 2021–22, reaching 20.1% overall (Figure 1.1). All Tier 1 and primary regional retailers lost market share in 2021–22.

In the residential gas market, 18 retailers supplied 2,263,826 residential customers in 2021–22.

Tier 2 retailers continued to gain market share, reaching 14.1% overall (Figure 1.1). All Tier 1 and primary regional retailers saw a decrease in market share, a continuing trend since 2017–18.

Figure 1.1 Residential customers market share by retailer



Note: ActewAGL is the only primary regional retailer in the gas market. Data as at 30 June each year.

Source: AER.

Small business customer numbers

In 2021–22, 55 retailers supplied electricity to 656,698 small business customers.

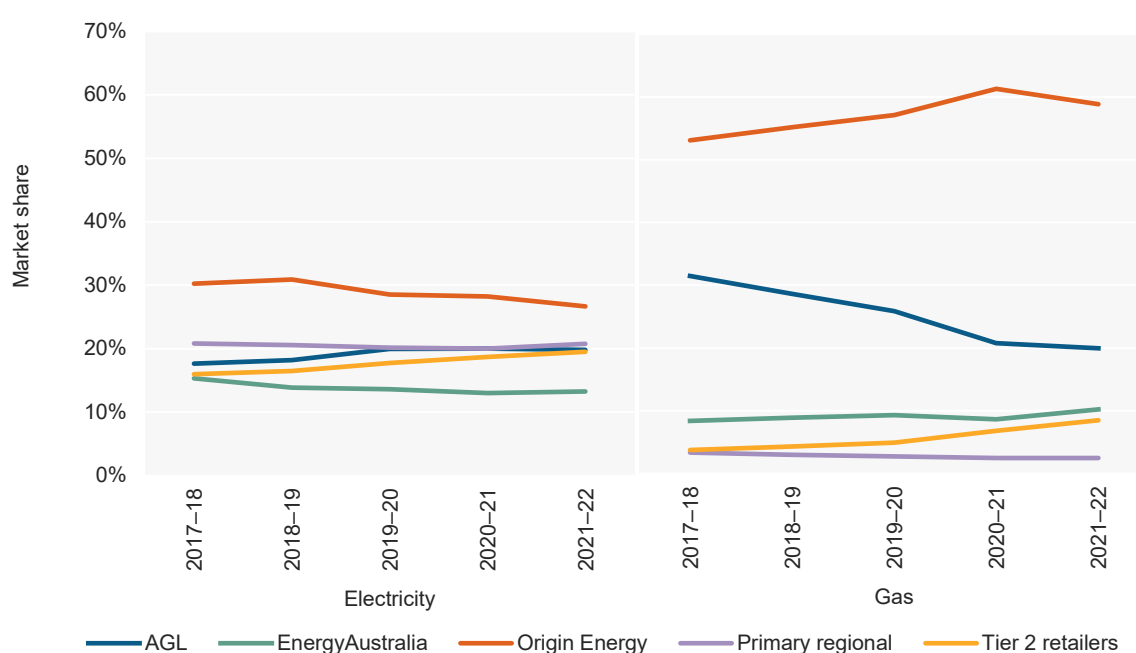
¹⁸ Does not include retailers with zero customers.

EnergyAustralia was the only Tier 1 retailer to marginally gain market share since 2021–22 (Figure 1.2). Primary regional retailers remained steady in their market share in 2021–22 at 20.8%. Tier 2 retailers increased their market share, serving 19.5% of customers, which was spread across multiple retailers.

In the small business gas market, 15 retailers supplied gas to 84,794 customers in 2021–22.

EnergyAustralia was the only Tier 1 retailer to gain market share. AGL and Origin Energy continued their decrease in market share. ActewAGL (the only primary regional retailer) continued its slow decline in market share. In similar trends to the residential and small business markets, Tier 2 retailers saw an increase in market share overall of 1.7%.

Figure 1.2 Small business customers market share by retailer



Note: ActewAGL is the only primary regional retailer in the gas market. Data as at 30 June each year.
Source: AER.

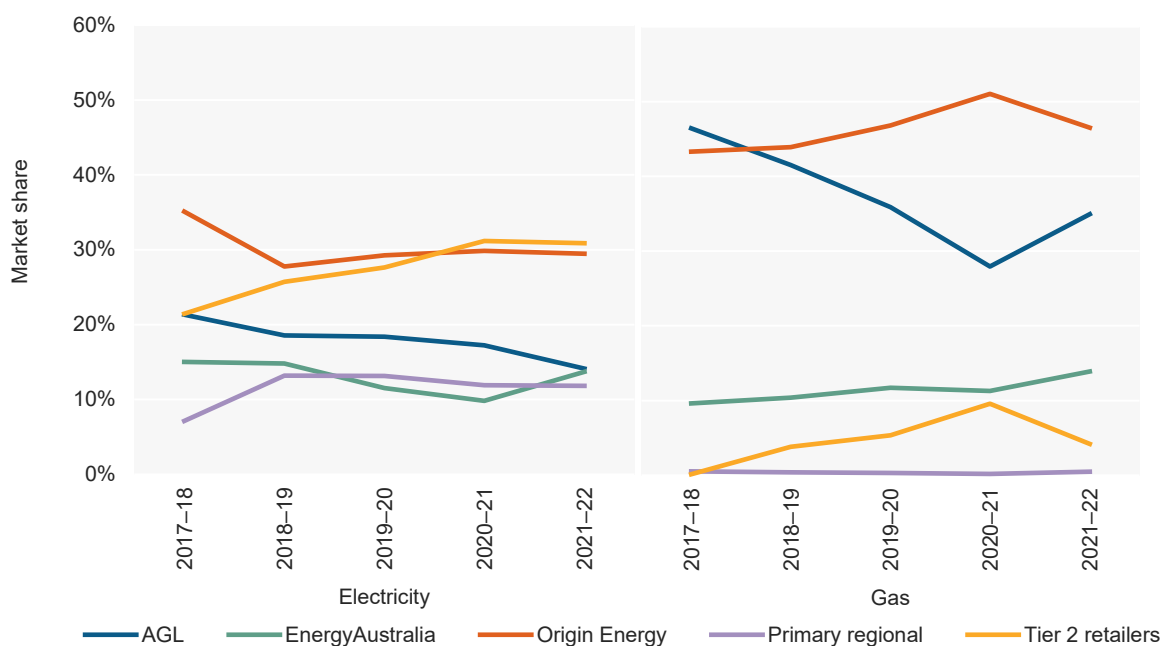
Large customer numbers

In 2021–22, 49 retailers supplied electricity to 64,548 large customers.

AGL continued its decrease in market share in 2021–22, a trend which has continued since 2017–18 (Figure 1.3). EnergyAustralia broke its trend in 2021–22 and saw a 3.8% increase in its market share. Origin Energy, primary regional and Tier 2 retailers all experienced a modest decrease in market share in 2021–22.

In the gas market, 9 retailers supplied gas to 4,121 large customers in 2021–22.

AGL had a substantial 7% increase in market share, restoring it to the market share levels it experienced in 2018–19 (Figure 1.3). EnergyAustralia's 2.6% increase is likely due to its acquisition of customers from retailer failures in May and June 2022. Tier 2 retailers and Origin Energy had a substantial decrease in their market share by 5.4% and 4.5%, respectively.

Figure 1.3 Large customers market share by retailer

Note: ActewAGL is the only primary regional retailer in the gas market. Data as at 30 June each year.
Source: AER.

1.1.2 Small and medium retailers continue growth over the past 5 years, large retailers maintain majority of market share

In this section, we analyse residential customer numbers and growth rates from 2017–18 to 2021–22. To provide further insights, retailers have been grouped into small, medium, and large categories based on their number of customers at the end of 2021–22. The groupings are:

- small retailers – less than 10,000 customers
- medium retailers – between 10,000 and 100,000 customers
- large retailers – more than 100,000 customers.

Due to the majority market share that Tier 1 retailers hold, changes in customer growth for small and medium retailers are often overshadowed by the minimal impact they have in the overall market share figures. These alternative groupings allow us to better explore outcomes for smaller retailers or new entrants and the growth they have experienced since 2017–18.

Across both electricity and gas, small and medium retailers have increased their overall customer numbers and market share. This highlights that these types of retailers, which are often relatively new to the market, can continue to establish themselves and provide greater choice to consumers. This is a positive indicator of growing competition in the retail market.

For large retailers, substantial growth from current levels has only occurred by acquiring established small or medium retailers. For example, in 2020–21 market concentration in South Australia and south-east Queensland electricity markets increased for the first time in

4 years, because AGL acquired amaysim Energy's 43,500 customers in both Queensland and South Australia, and Origin Energy's market share increased by 0.6% in South Australia.

Residential electricity

From 2017–18 to 2021–22 the market share of small electricity and medium retailers increased from 0.4% to 1.0% and from 5.0% to 6.4%, respectively (Figure 1.4). In comparison, large retailers' market share decreased from 94.5% to 92.6%. Overall customer numbers from 2017–18 to 2021–22 increased by 6.8% to 428,237.

Small retailers historically saw steady increases in customer numbers from 2017–18 to 2020–21. However, in 2021–22 small retailers' customer numbers reduced significantly (by 20%) compared with the previous year. This reduction in customer numbers was influenced by several factors, including customers switching retailers, retailers failing, or retailers not taking on new customers or urging their customers to find a new retailer due to the volatile price increases in both the wholesale electricity and gas markets in May and June 2022.

The majority of medium retailers re-established their trend of steady increases, with customer numbers increasing by 8.9% in 2021–22 compared with the previous year. Tango Energy had the largest increase of 6,397 customer numbers. However, Momentum Energy had a reduction of 3,596 customers.

Although large retailers lost 1.9% of market share from 2017–18 to 2021–22, they still held 92.6% of market share in 2021–22 and had a steady 1% to 2% year-on-year increase in customer numbers between 2017–18 and 2021–22. In 2021–22 Alinta Energy had the largest increase of 31,136 customers, followed by Red Energy, Ergon Energy, Origin Energy and AGL. All other large retailers had a decline in customer numbers. EnergyAustralia had the largest reduction of 18,470 customers.

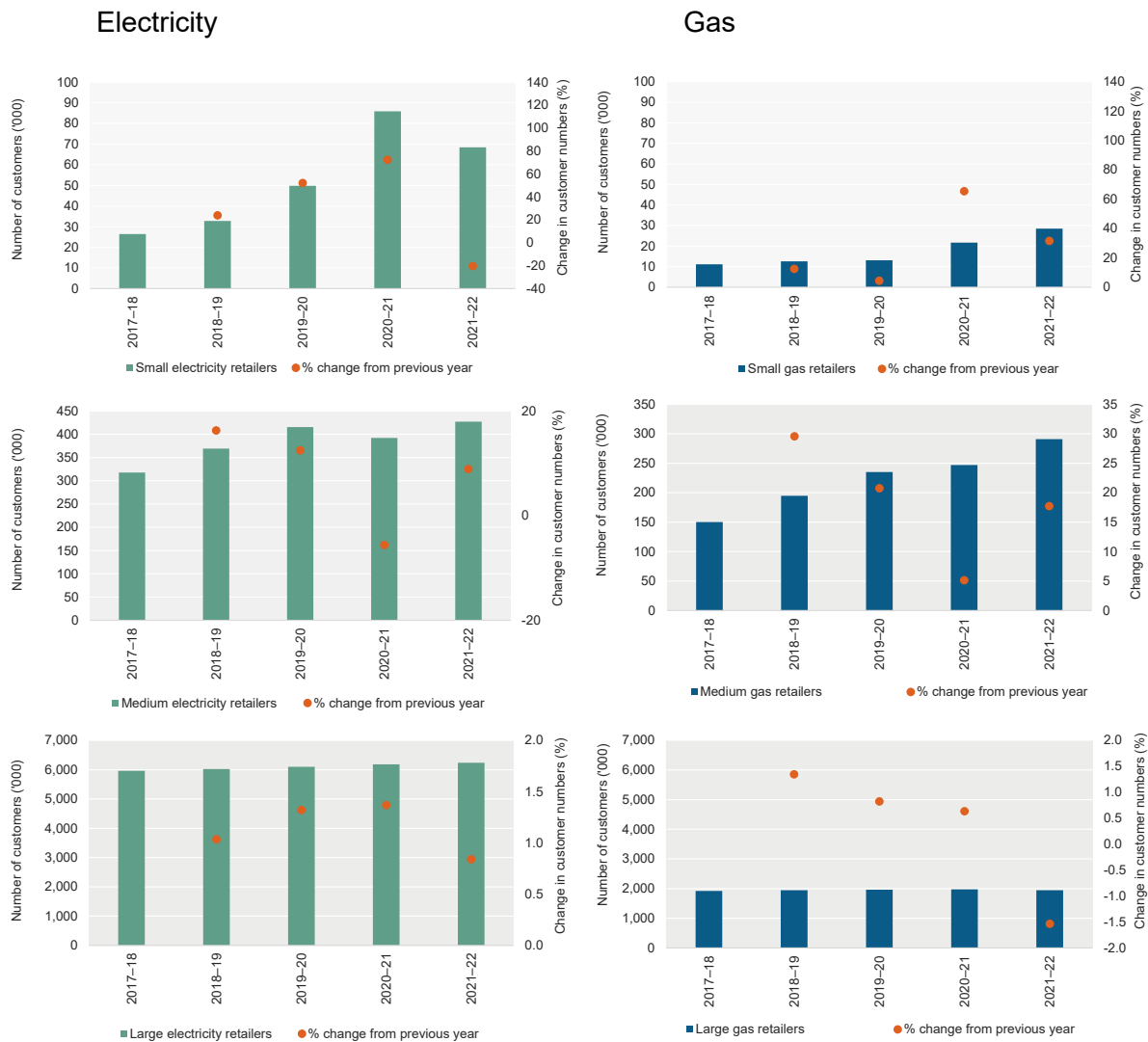
Residential gas

The residential gas market saw similar trends to electricity from 2017–18 to 2021–22 – market share for small gas retailers increased from 0.5% to 1.3% and for medium retailers increased from 7.2% to 12.9% (Figure 1.4). However, large retailers saw a decrease in market share from 92.3% to 85.9% from 2017–18 to 2021–22. Overall customer numbers increased by 8.7% to 181,868 from 2017–18 to 2021–22.

Small retailers saw an increase in customer numbers in 2021–22 of 31.5%, which is a smaller increase than in 2020–21 but larger than 2018–19 and 2019–20.

Medium retailers had a 17.7% increase in customer numbers in 2021–22. Medium retailers continue to increase its customers, a trend which has continued consistently since 2017–18.

Although large retailers lost 6.4% of market share from 2017–18 to 2021–22, they still held 85.9% market share in 2021–22 and had 1–2% increases in customer numbers over the 2017–18 to 2020–21 period. However, in 2021–22, large retailers' customer numbers declined by 2%. The 3 retailers with the greatest decrease in customer numbers were AGL, ActewAGL and Origin Energy.

Figure 1.4 Electricity and gas retailer residential customer numbers

Note: Data as at 30 June each year.

Source: AER.

1.1.3 Lower market concentration indicates greater retail contestability across jurisdictions

The Herfindahl-Hirschman Index (HHI) is a measure of market concentration. The HHI is calculated by summing the squares of the market share of all retailers competing in the market. A decrease in the HHI over time indicates a decrease in market concentration and may indicate a more competitive market.

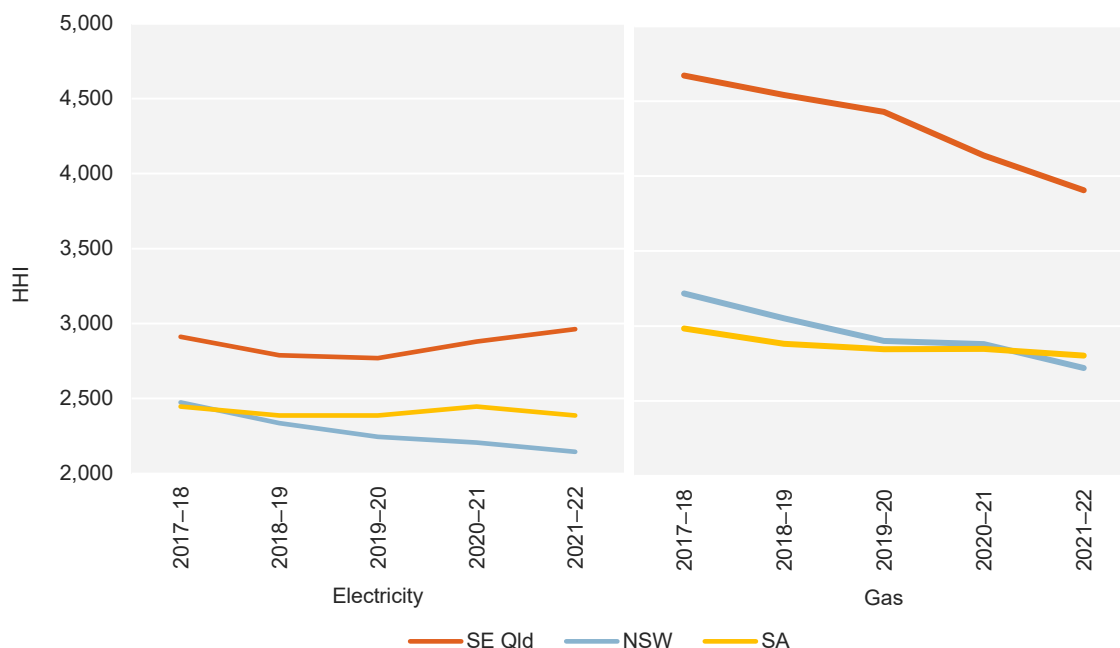
Electricity residential customers in regional Queensland are largely supplied by Ergon Energy – as a result, the HHI assessment in Queensland is focused on the south-east region.

The concentration in both gas and electricity followed similar decreasing trends over time until 2019–20, indicating greater retail contestability (Figure 1.5). Electricity market concentration in south-east Queensland and South Australia increased in 2020–21, when AGL and Origin Energy had an increase in market share. This trend continued for south-east

Queensland in 2021–22. However, South Australia and NSW saw a decrease in electricity market concentration in 2021–22.

The gas retail market is notably more concentrated than the electricity retail market, mainly due to fewer retailers. All jurisdictions saw a decreasing trend in gas market concentration in 2021–22.

Figure 1.5 HHI for the electricity and gas residential markets

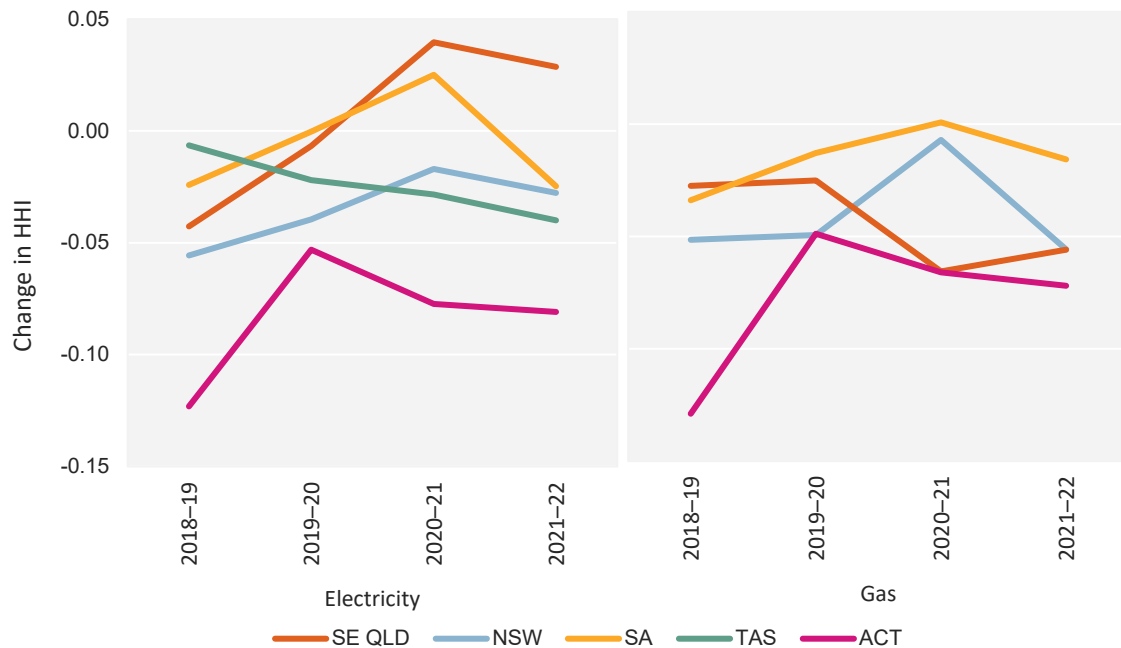


Note: The ACT and Tasmania's HHI are not shown because these values were significantly higher and would distort the scale. The ACT electricity residential market HHI values steadily declined from 7,877 in 2017–18 to 5,546 in 2021–22 and Tasmania electricity HHI values decreased from 10,000 in 2017–18 to 9,063 in 2021–22. The ACT gas residential market HHI values declined from 8,028 in 2017–18 to 5,764 in 2021–22. Data as at 30 June each year. Source: AER.

In the residential electricity market, NSW, the ACT and Tasmania had a zero or negative rate of change from 2017–18 to 2021–22, indicating that market concentration either remained the same or decreased (Figure 1.6).

South-east Queensland and South Australia were the only jurisdictions to increase above zero in 2020–21, whereas in 2021–22 only south-east Queensland remained the only one above zero. In the residential gas markets, all jurisdictions had a zero or negative rate of change across the same period.

In 2021–22 all jurisdictions saw a downward trend in HHI, which indicates a reduction in concentration in the electricity market, with South Australia returning to a negative rate of change. The downward trend was the same for the NSW, the ACT and South Australian gas markets. South-east Queensland was the only jurisdiction to see an upward trend in the gas market.

Figure 1.6 Annual change in HHI

Note: Data as at 30 June each year.
Source: AER.

1.1.4 Tier 1 still maintains largest market share in most jurisdictions

The retail market landscape differs across jurisdictions. NSW, south-east Queensland, and South Australia all have characteristics of a competitive market, including a large number of retailers and diversity among offers from retailers. However, Tasmania, the ACT and regional Queensland are still largely dominated by their primary regional retailers Aurora Energy, ActewAGL and Ergon Energy, respectively.

A common national customer framework also applies across all of Queensland, NSW, the ACT, South Australia, and Tasmania. However, price regulation has been applied across the ACT, Tasmania, and regional Queensland. Regulated price caps apply to standing offers for ActewAGL in the ACT and Aurora Energy in Tasmania, while in regional Queensland Ergon Energy offers a regulated price that all other retailers can compete below. Ergon Energy also receives a government subsidy, which assists it in making offers similar to those seen in south-east Queensland. This subsidy is not available to other retailers.

Recently other forms of price regulation have been applied, such as the DMO in NSW, south-east Queensland, and South Australia, and the VDO in Victoria. The DMO was introduced from 1 July 2019. The AER determines a DMO price that is a cap on standing offer electricity prices and acts as a reference benchmark price for market offers. The DMO price is not intended to mirror the lowest price in the market. Rather, it strikes a balance between reducing unjustifiably high prices, allowing retailers to recover costs in servicing customers and providing customers and retailers with incentives to participate in the market. The Victorian market is regulated by the ESC, which determines the VDO.

The largest 3 retailers' (based on national customer numbers) and primary regional retailers' percentage changes in customer numbers from 2017–18 to 2021–22 and their market shares

in each jurisdiction as at June 2022, for both residential electricity and gas markets, are shown in Table 1.1 and Table 1.2.

From 2017–18 to 2021–22 movement in residential electricity customer numbers differed across jurisdictions for these retailers (Table 1.1). No Tier 1 or primary regional retailers were able to increase customer numbers across every jurisdiction in which they operate. However, EnergyAustralia experienced a decrease in customer numbers across 3 of the 4 jurisdictions it operates in.

As observed in section 1.1.1, most of these large retailers lost market share nationally, but the decline was gradual. Due to the size of these retailers, this has not had a large impact. Across NSW, Queensland, and South Australia, the top 3 residential electricity retailers still accounted for over 75% of total market share in 2021–22. In Tasmania and the ACT, the primary regional retailers still hold more than 70% individually.

Table 1.1 Residential electricity customers change in customer numbers and market share – 2017–18 to 2021–22

	AGL	EnergyAustralia	Origin Energy	Primary regional retailers
ACT				
Change in customer numbers	–	56%	173%	(11%)
Market share	–	5%	19%	72%
NSW				
Change in customer numbers	9%	(5%)	(5%)	3%
Market share	24%	25%	29%	1%
Queensland				
Change in customer numbers	19%	(2%)	(5%)	5%
Market share	19%	5%	46%	30%
South Australia				
Change in customer numbers	(2%)	(24%)	16%	–
Market share	37%	7%	28%	–
Tasmania				
Change in customer numbers	–	–	–	0%
Market share	–	–	–	95%

Source: AER.

In the residential gas market, all large retailers experienced a decline in customer numbers in at least one of the jurisdictions it operates in from 2017–18 to 2021–22.

Table 1.2 Residential gas customers change in customer numbers and market share – 2017–18 to 2021–22

	AGL	EnergyAustralia	Origin Energy	Primary regional retailers
ACT				
Change in customer numbers	–	45%	184%	(14%)
Market share	–	6%	18%	73%
NSW				
Change in customer numbers	(3%)	7%	7%	(11%)
Market share	41%	25%	20%	1%
Queensland				
Change in customer numbers	7%	–	(6%)	–
Market share	41%	–	47%	–
South Australia				
Change in customer numbers	3%	(23%)	4%	–
Market share	29%	9%	42%	–

Source: AER.

1.1.5 Competition in the NSW residential energy market remains stable

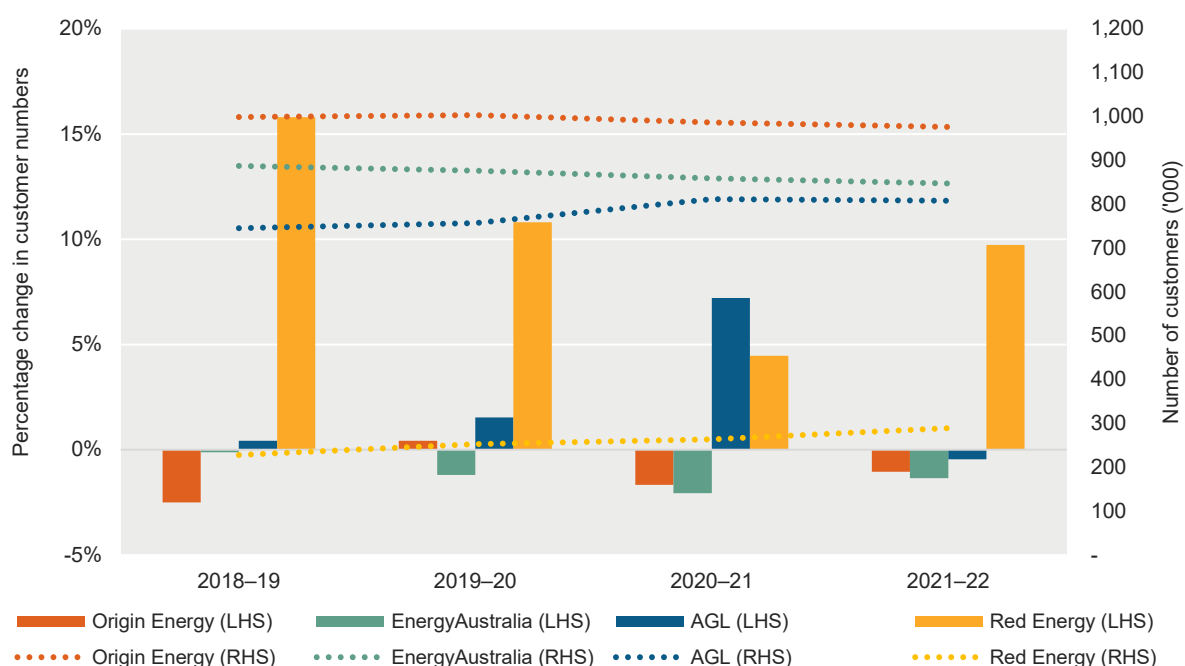
This section focuses on changes to the NSW residential energy markets from 2017–18 to 2021–22. NSW has been used as an example, but similar results were observed in the south-east Queensland and South Australian residential electricity markets. All 3 markets are considered more competitive than Tasmania or the ACT due to fewer price regulations and a larger number of retailers.

Electricity

The NSW residential electricity market has grown in both customers and retailers over the past 5 years (Figure 1.7). In 2017–18 the market had 29 active retailers supplying 3,139,615 customers. This increased to 48 active retailers supplying 3,364,026 customers by the end of June 2022.

The NSW residential electricity market has 4 large electricity retailers, each of which had more than 280,000 customers in 2021–22. For the first time in 4 years, AGL saw a decrease in customer numbers in 2021–22. Despite this, AGL and Red Energy were the only large retailers able to consistently increase the size of their customer base across the 4 years.

AGL's large increase in 2020–21 was mainly driven by its acquisition of amaysim Energy. However, AGL's year-on-year growth stalled in 2021–22. This can be seen in the increase in all other retailers in 2021–22 in Figure 1.8.

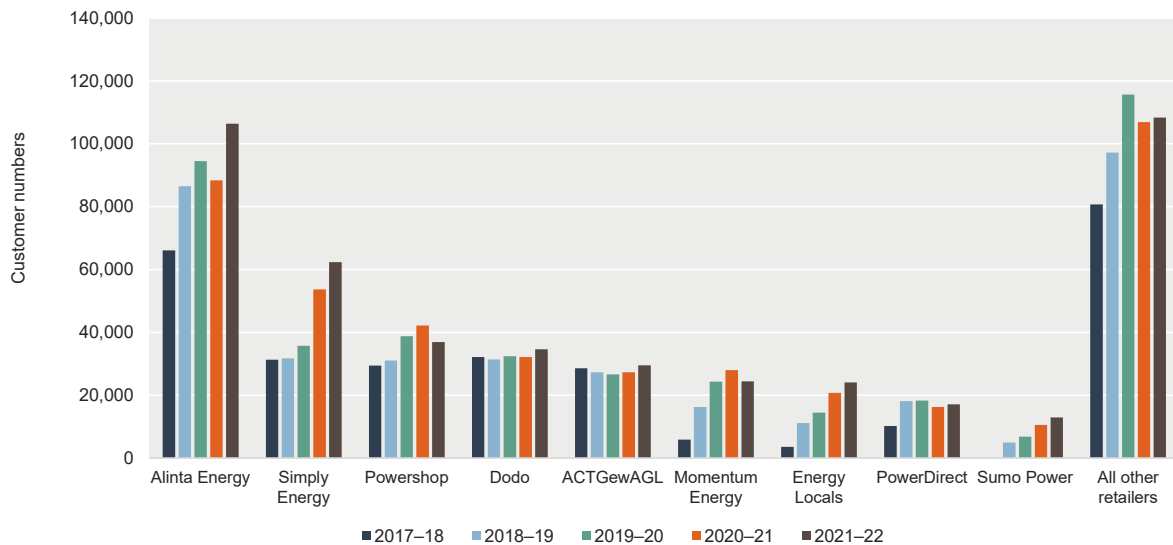
Figure 1.7 Residential electricity customer numbers by large retailers – NSW

Note: Data as at 30 June each year.

Source: AER.

Most other retailers in the NSW residential electricity market experienced consistent growth or maintained customer numbers across the period (Figure 1.8). As highlighted in the HHI analysis (section 1.1.3), this has resulted in a decrease in market concentration in NSW.

Alinta Energy was able to increase its customer base from around 66,000 customers in 2017–18 to 106,000 in 2021–22 and now holds approximately 3.2% of total market share. Smaller retailers such as Simply Energy, Dodo Power & Gas and Energy Locals were able to grow their customer bases substantially and had more than 20,000 customers each in 2021–22.

Figure 1.8 Residential electricity customer numbers by other retailers – NSW

Note: Data as at 30 June each year.

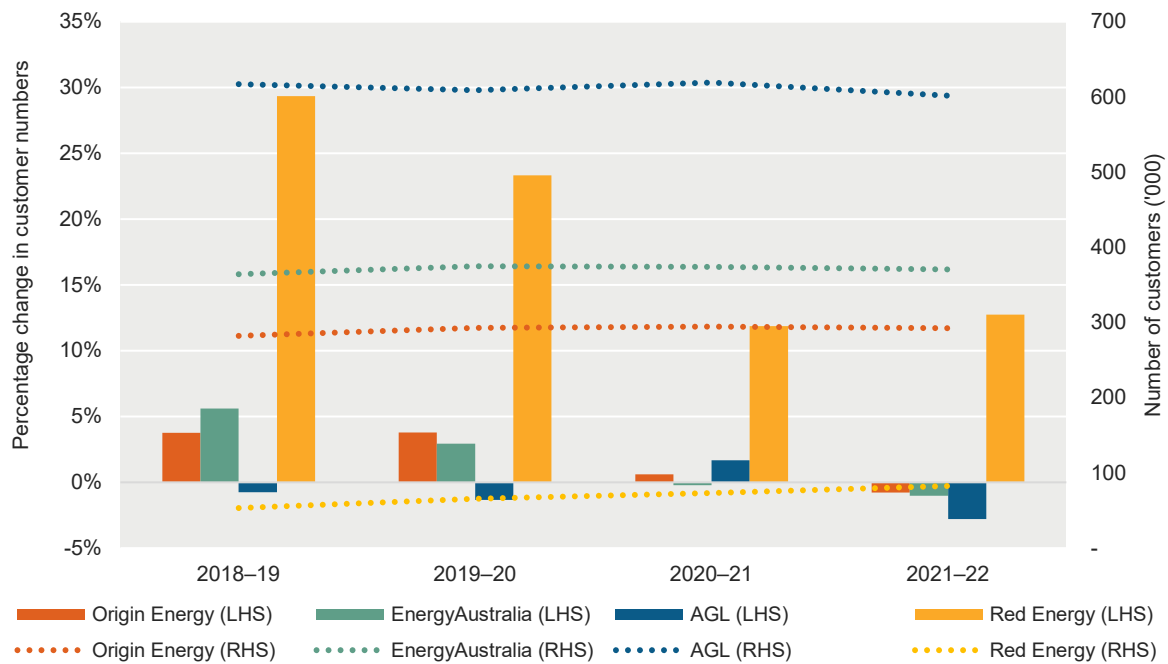
Source: AER.

Gas

The gas market in NSW is significantly smaller than the electricity market, but it too has grown in terms of both customer numbers and active retailers (Figure 1.9). In 2017–18, 11 active retailers supplied 1,345,526 customers. This grew to 15 active retailers supplying 1,479,404 customers in 2021–22.

The 3 largest retailers (AGL, EnergyAustralia and Origin Energy) combined made up 85% of the market in 2022, which has decreased from 92% in 2017–18. Both EnergyAustralia and Origin Energy have experienced fairly consistent growth in their customer bases across this time. However, the increase in new customers and growth of smaller retailers has seen a decrease in their market share in 2021–22.

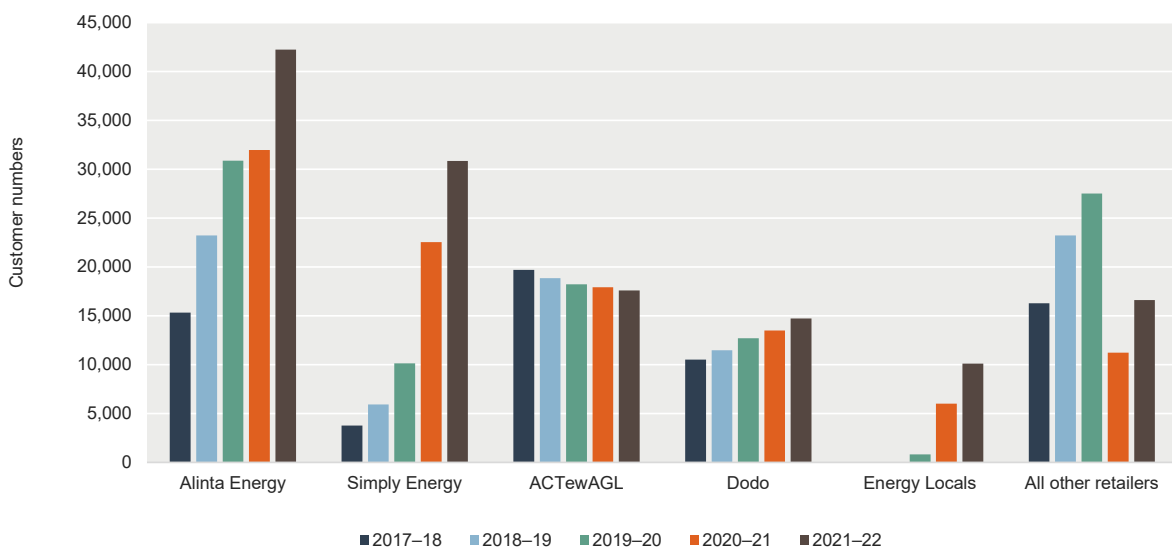
Red Energy's year-on-year growth across this 4-year period continues to be consistent.

Figure 1.9 Residential gas customer numbers by large retailers – NSW

Note: Data as at 30 June each year.

Source: AER.

Similar to the residential electricity market in NSW, the majority of smaller gas retailers have been able to grow their customer base consistently across the past 5 years (Figure 1.10). Alinta Energy's and Simply Energy's consistent growth made up 2.9% and 2.1% of the gas market, respectively, as at June 2022. This growth in smaller retailers has contributed to the decrease in market concentration in NSW shown in section 1.1.3.

Figure 1.10 Residential electricity customer numbers by retailer – NSW

Note: Data as at 30 June each year.

Source: AER.

1.1.6 ACT residential energy market shows increasing signs of competition

This section focuses on changes to the ACT residential energy markets from 2017–18 to 2021–22. As discussed above, the ACT and Tasmanian residential markets have less competitive aspects than south-east Queensland, NSW, and South Australia.

Due to additional price regulations and the size of the ACT and Tasmanian markets, historically there have been very few new entrants. This has seen primary regional retailers hold a dominant share. However, in recent years the number of retailers offering contracts to customers have increased in both markets. We have focused on the ACT because it has transitioned more towards a competitive market than Tasmania.

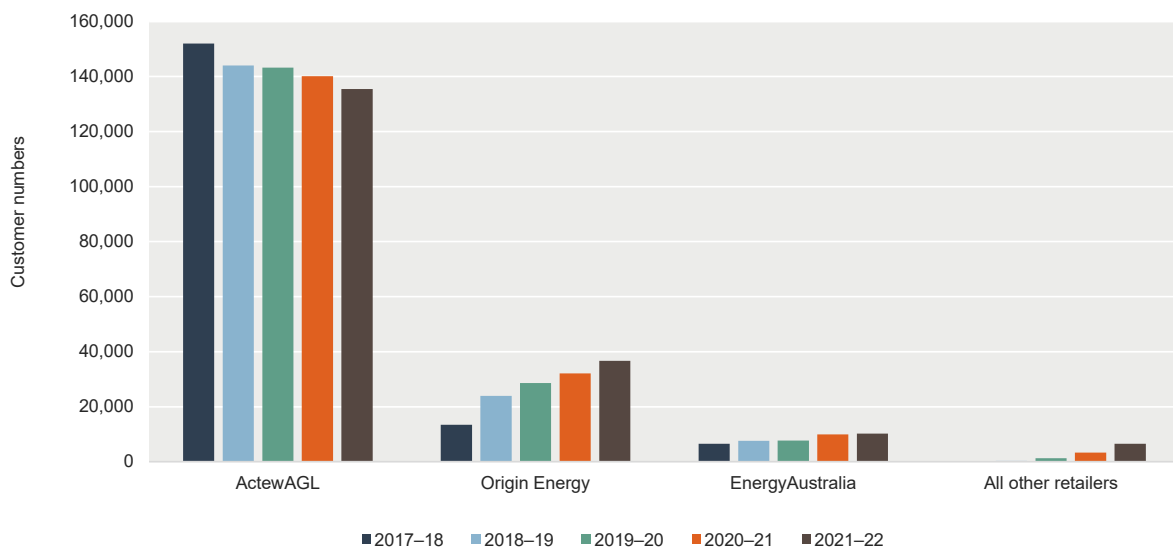
Electricity

The ACT residential electricity market is the smallest jurisdictional market. Primary regional retailer ActewAGL is the largest retailer in the region. However, it has continued to lose customers to other retailers over the past 5 years (Figure 1.11).

In 2017–18 ActewAGL held 88% market share, which decreased to 72% in 2021–22. Across the same period the number of active retailers increased from 6 to 16. Origin Energy has been able to consistently grow its customer base and had 19% market share in 2021–22.

As discussed in the HHI analysis (section 1.1.3), the increase in number of retailers and growth in their customer numbers is a positive sign for competition in the ACT residential electricity market.

Figure 1.11 Residential electricity customer numbers by retailer – ACT



Note: Data as at 30 June each year.

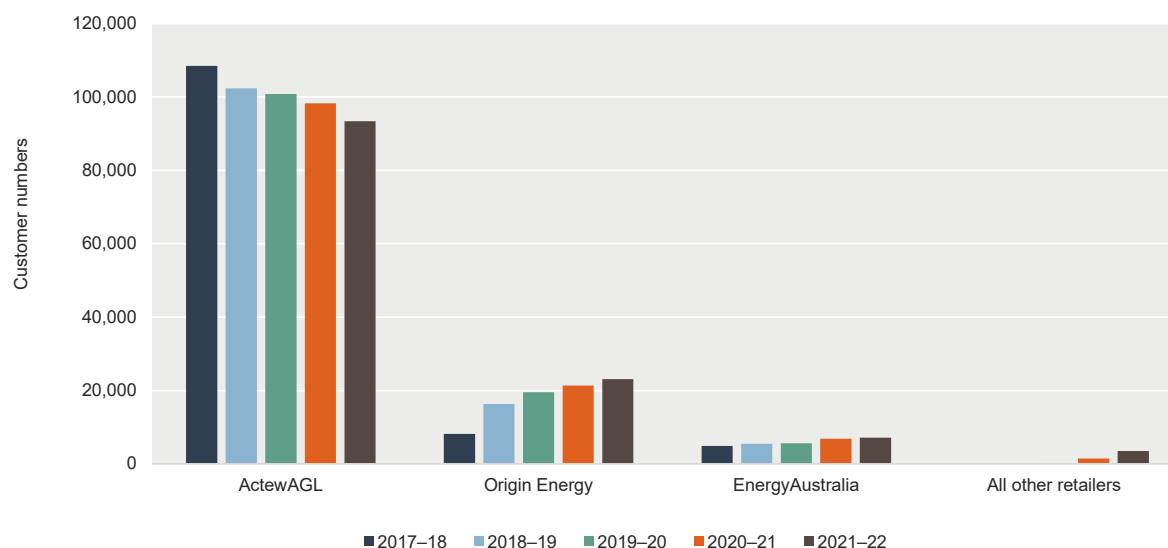
Source: AER.

Gas

Similar to the ACT residential electricity market, the gas market is also the smallest jurisdictional market with only 5 retailers actively participating in 2021–22.¹⁹ It has also been becoming more competitive over the past 5 years.

In 2017–18 ActewAGL supplied 89% of customers but its market share decreased to 73% in 2021–22 (Figure 1.12). Origin Energy has grown its market share from 7% in 2017–18 to 18% in 2021–22.

Figure 1.12 Residential gas customer numbers by other retailers – ACT



Note: Data as at 30 June each year.

Source: AER.

1.1.7 Tier 2 retailers continue to hold largest proportion of customers on market contracts

Before price deregulation was introduced in the National Electricity Market (NEM), governments set retail energy prices. Following deregulation, while retailers introduced market offers, governments required incumbent retailers to retain standing offers as a transitional measure to allow time to adjust to a competitive market. As the market evolved, governments continued to retain standing offers as a safety net. Prices for standing offers are typically higher than market offers. Every retailer must publish a standard retail contract and its standing offer prices. A designated retailer for a customer's premises must supply the customer under its standing offer if requested.

Electricity

Overall, the number of customers on electricity and gas market contracts continues to increase year on year, which should result in savings to customers across retailers and jurisdictions (Figure 1.13).

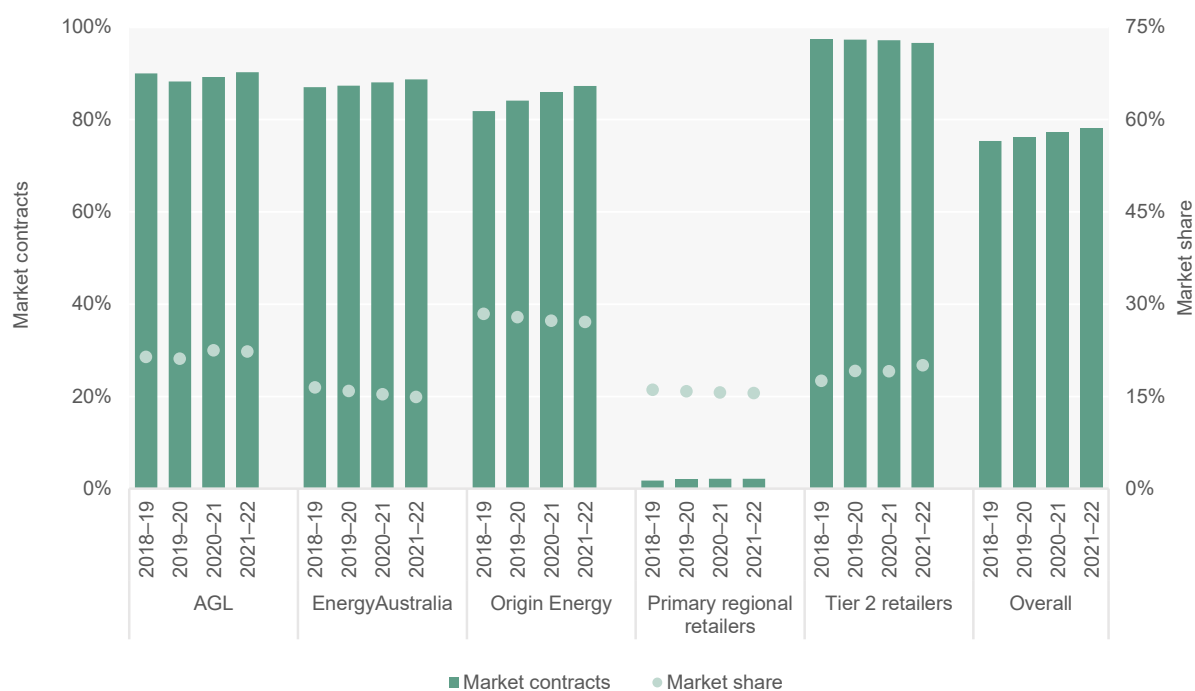
¹⁹ The AER does not regulate the Tasmanian gas market.

The proportion of Tier 1 customers on market contracts is lower on average than for Tier 2 retailers. This could reflect the position of Tier 1 retailers as incumbents from the time that retail contestability was introduced, allowing them to retain customers that never took up a market contract. Primary regional retailers operate in areas with limited retail competition, so most of their customers remain on standing offers. For example, Ergon Energy had no customers on market contracts in 2021–22.

The proportion of Tier 2 retailers' customers on market contracts remained at 97% in 2021–22. However, of the Tier 1 retailers:

- Origin Energy was able to continue its increases from the previous 5 years and now has 87% of customers on market contracts
- AGL has maintained between 88% to 90% across this time
- EnergyAustralia has increased from 87% in 2018–19 to 89% in 2021–22.

Figure 1.13 Residential electricity customers on market contracts by retailer

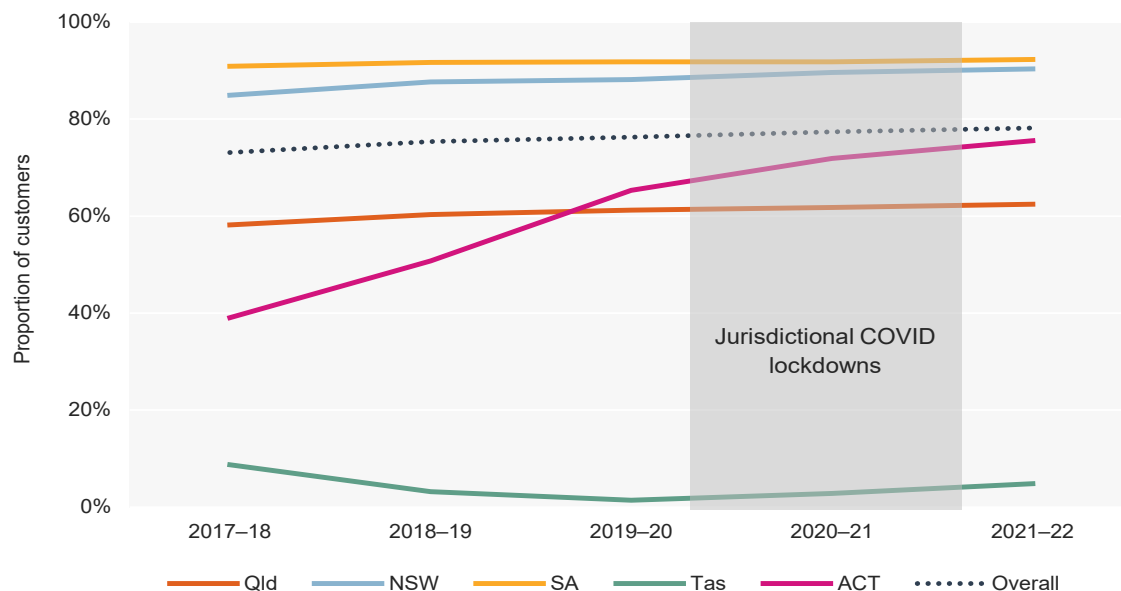


Note: Data as at 30 June each year.
Source: AER.

When comparing residential customers on market contracts across jurisdictions, NSW and South Australia have consistently had over 80% of customers on market contracts (Figure 1.14). Queensland figures are impacted by Ergon Energy, which only offers standard contracts. If Ergon Energy is removed from the calculation, Queensland's proportion of customers on market contracts increases to 89% for 2021–22, which is similar to NSW (90.3%) and South Australia (92.3%). As discussed above, all 3 jurisdictions' markets are considered more competitive than the ACT or Tasmania – a large number of customers on market contracts supports this.

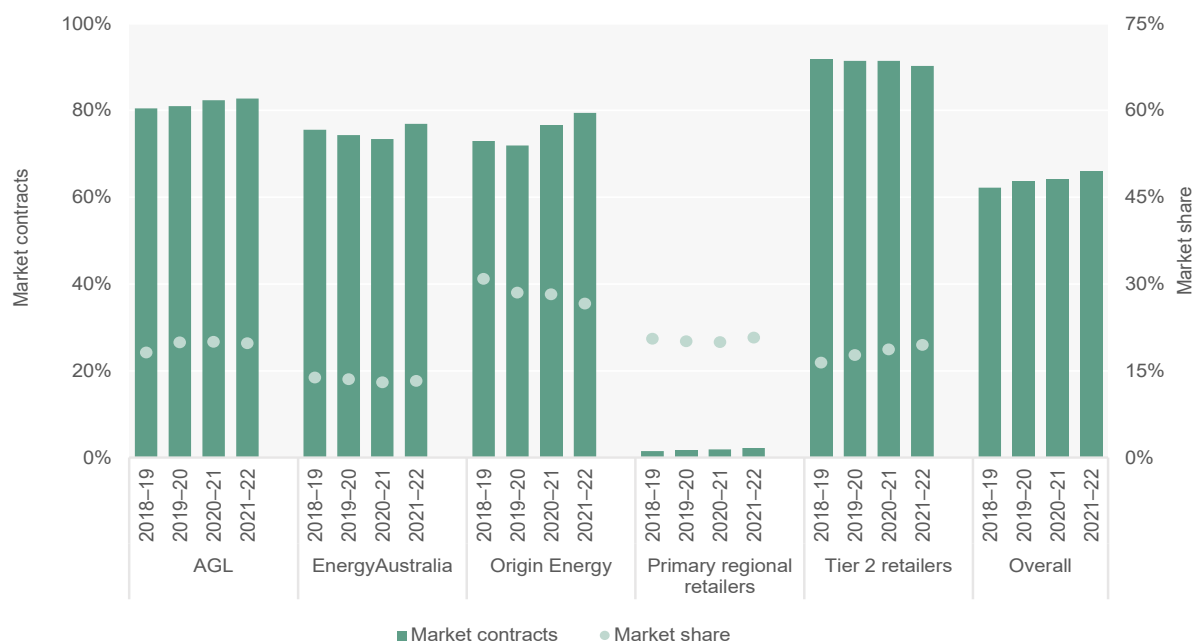
The significant increase in customers on market contracts in the ACT over the past 5 years, along with the increase in the number of retailers and greater choice of retailers, indicates a move towards a more competitive market.

Figure 1.14 Residential electricity customers on market contracts by state/jurisdiction



Note: Data as at 30 June each year.
Source: AER.

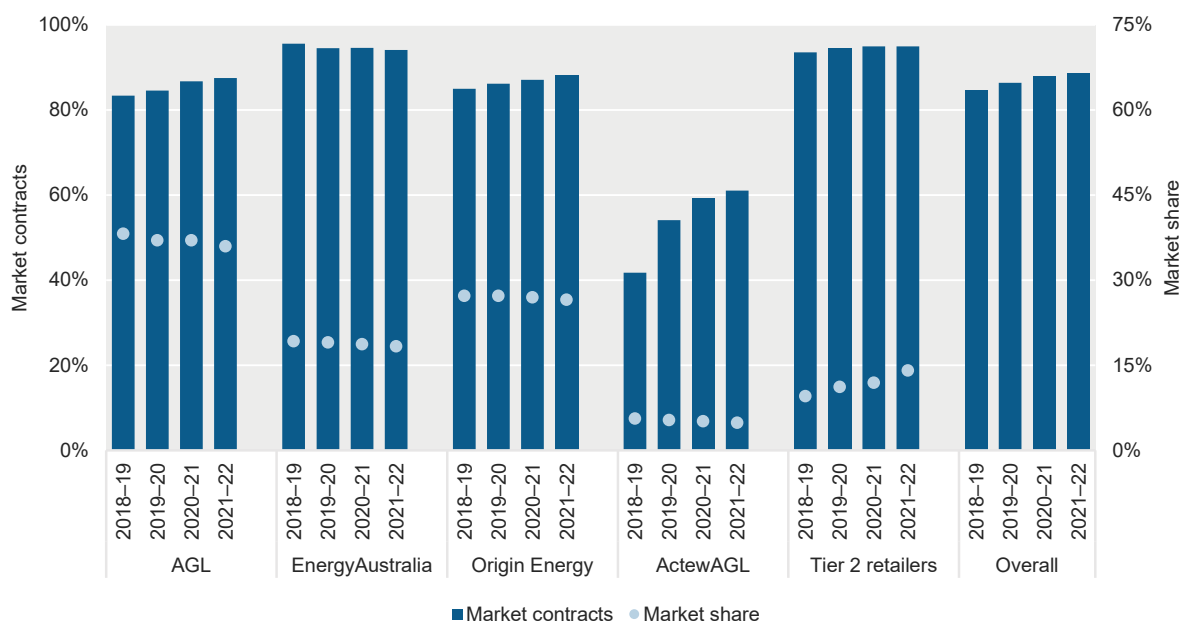
For small business customers, the proportion of customers on market contracts continued to change in line with trends over the past 5 years (Figure 1.15). All 3 large retailers had increases in the number of small business customers on market contracts in 2021–22.

Figure 1.15 Small business electricity customers on market contracts by retailer

Note: Data as at 30 June each year.
Source: AER.

Gas

In residential gas, AGL, Origin Energy, ActewAGL and Tier 2 retailers continued the increasing trend of higher proportions of customers on market contracts, which has been occurring in previous years (Figure 1.16). EnergyAustralia's proportion of customers on market contracts remained steady but it is markedly higher than the other Tier 1 retailers.

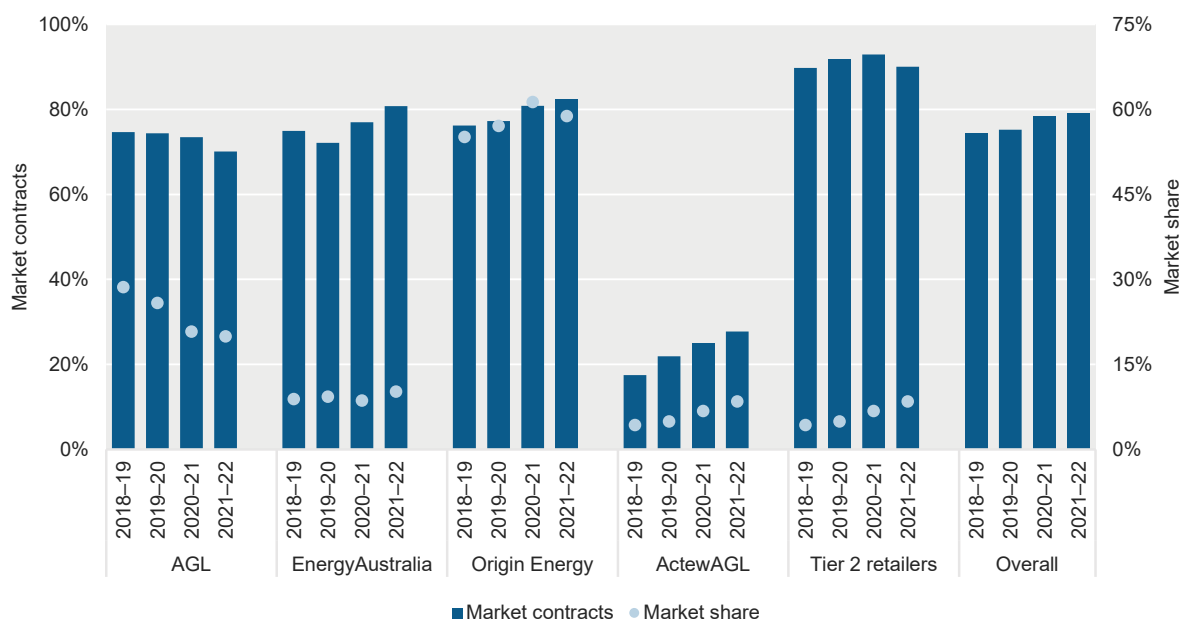
Figure 1.16 Residential gas customers on market contracts by retailer

Note: Data as at 30 June each year.
Source: AER.

For small business gas customers, the proportion of customers on market contracts decreased for AGL in 2021–22 but increased for EnergyAustralia and Origin Energy (Figure 1.17).

The average proportion of small business gas customers on market contracts across Tier 2 retailers remains higher than Tier 1 retailers. However, the proportion for Tier 2 retailers decreased this year.

Figure 1.17 Small business gas customers on market contracts by retailer



Note: Data as at 30 June each year.

Source: AER.

1.2 Market activity

1.2.1 New retailers continue to enter the market

The AER is responsible for authorising new retailers into the energy market. In 2021–22 we authorised 11 new retailers to participate in electricity and gas markets:

- sell electricity
 - CleanCo Queensland
 - CleanTech Energy
 - SmartestEnergy
 - LocalVolts
 - Circular Energy
 - Powow Power
 - Enel Energy Australia
 - Macarthur Energy Retail
- sell gas
 - Perpetual Energy
- sell both electricity and gas

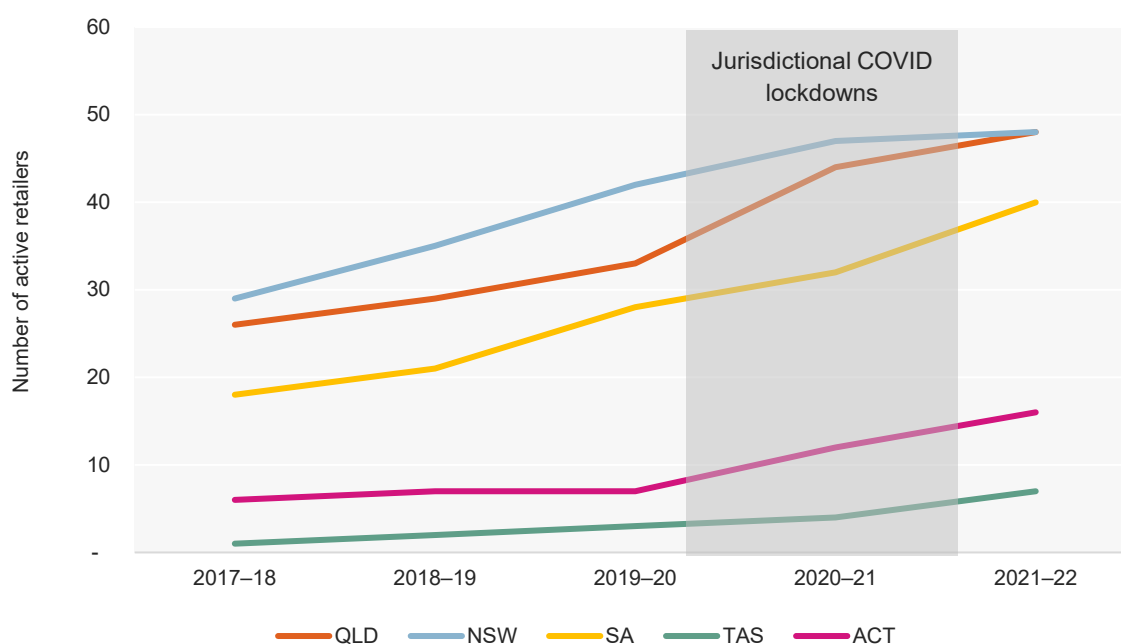
- Telstra Energy Retail
- ReAmped Energy.²⁰

This is a slight decrease from the previous year, in which 18 new retailers were authorised to participate in the energy market. In 2021–22 there were 4 RoLR events which resulted in 3 RoLR notices being issued to Enova Energy, Pooled Energy and Weston Energy.

Authorisations do not necessarily result in an immediate greater choice for consumers, with retailers often varying which market segments they target or not actively attempting to grow their customer base in the early years of the business. When looking at active retailers (retailers with customers), of the 11 new retailers who were authorised to participate in 2021–22, only 2 (LocalVolts and ReAmped Energy) are recorded as having customers.²¹

The number of active retailers varies significantly across each jurisdiction (Figure 1.18). The ACT and Tasmania, which historically lacked competition, have very low numbers of active retailers. More competitive markets such as NSW, Queensland and South Australia have substantially more active retailers. However, all jurisdictions are experiencing an increasing trend in the number of active retailers, with increases between 40% to 63% from 2017–18 to 2021–22 in NSW, Queensland, South Australia, and the ACT.

Figure 1.18 Number of active residential electricity retailers by state/jurisdiction



Note: Data as at 30 June each year.
Source: AER.

²⁰ Telstra Energy was granted an electricity retail licence in October 2021, and a gas retail licence in November 2021. ReAmped Energy has held an electricity retail licence since July 2018 and was granted a gas retail licence in December 2021.

²¹ ReAmped Energy has since advertised that they are no longer taking on new customers, ReAmped Energy, [ReAmped Energy home page](#), ReAmped Energy website, accessed 24 November 2022.

1.2.2 Rise in electricity customer switching rates, gas customers slowing

The rate at which customers switch between retailers provides one indicator of how actively customers engage with the retail market. However, switching rates do not provide a complete picture of engagement within the energy market. For example, switching may be low in a competitive market if retailers deliver good-quality, low-priced services that give customers no reason to change. Customers might engage with the market and decide to stay with their current plan or might change energy plans with the same retailer. This data does not capture movement from one offer to another while staying at the same retailer.

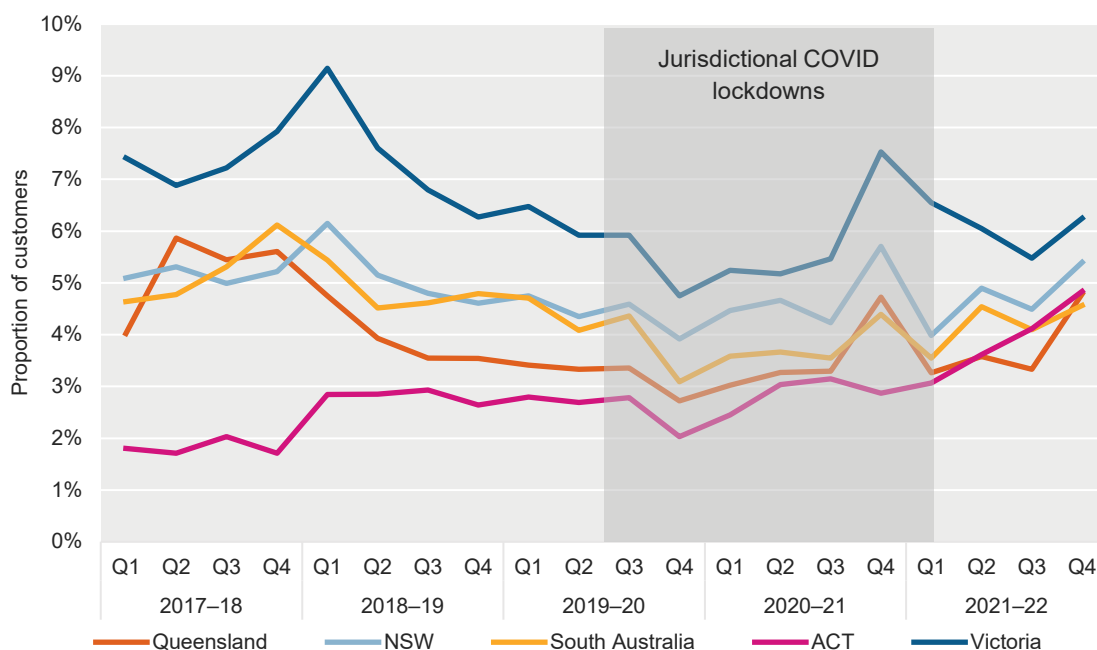
Switching rates

For electricity, switching between retailers peaked in most jurisdictions in Q4 2017–18 and Q1 2018–19 (Figure 1.19). This coincided with the implementation of consumer engagement programs in some jurisdictions in 2018, which aimed to help consumers navigate the energy market and get a better deal.

For electricity, switching rates across jurisdictions trended down from the peak until Q4 2019–20. The sharp drop in this quarter may be associated with impacts from the start of the COVID-19 pandemic. Across 2021–22 quarterly switching rates have slowly started to increase across all jurisdictions. However, in Q4 2021–22 switching rates increased sharply. This sharp increase may be due to customers either searching for a better deal or having to switch due to retailer failures as a result of the market volatility and dramatic price increases in both the wholesale electricity and gas markets.

Switching rates are generally higher in jurisdictions considered more competitive, such as Victoria, NSW, south-east Queensland, and South Australia. However, at the end of 2021–22 the ACT was approaching similar levels.

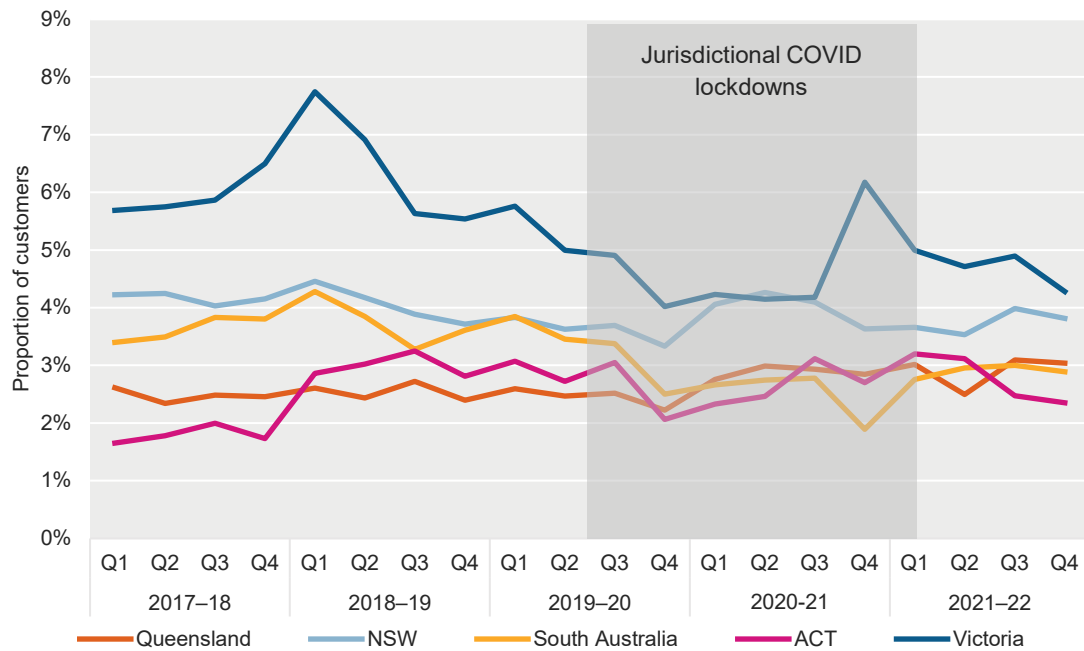
Figure 1.19 Electricity switching rate between retailers



Note: Data as at 30 June each year.
Source: AER.

Gas switching has remained relatively stable in 2021–22 and has not shown any high switching rates as seen in the electricity market (Figure 1.20).

Figure 1.20 Gas switching rate between retailers



Note: Data as at 30 June each year.
Source: AER

2 Pricing and affordability

Key findings

- Electricity has become less affordable for households in most jurisdictions.²²
- Electricity and gas prices have significantly increased, driven by market volatility. Median market offers rose by 9% to 20% for electricity and by 7% to 15% for gas across electricity and gas distribution networks from June to September 2022.
- Low-income households typically spent double the percentage of their disposable income on electricity and gas as average-income households.
- Median market offers remain broadly cheaper than standing offers in most electricity and gas distribution networks. The gap between median market and standing offers has narrowed significantly since 2020–21 in all jurisdictions except for Victoria and regional Queensland.
- Customers on hardship programs consume up to 81% more electricity than average. As a result, customers on hardship programs in low-income households could pay between 1.2% and 3.7% more of their disposable income in electricity costs. This indicates that more work is needed to ensure that customers in hardship programs are receiving the best available contract.
- Price offers vary across retailers. We encourage customers to use [Energy Made Easy](#) and [Victorian Energy Compare](#) to check if they are on the best available contract.

This section examines electricity and gas affordability across different time periods by taking snapshots of generally available market and standing offers in:

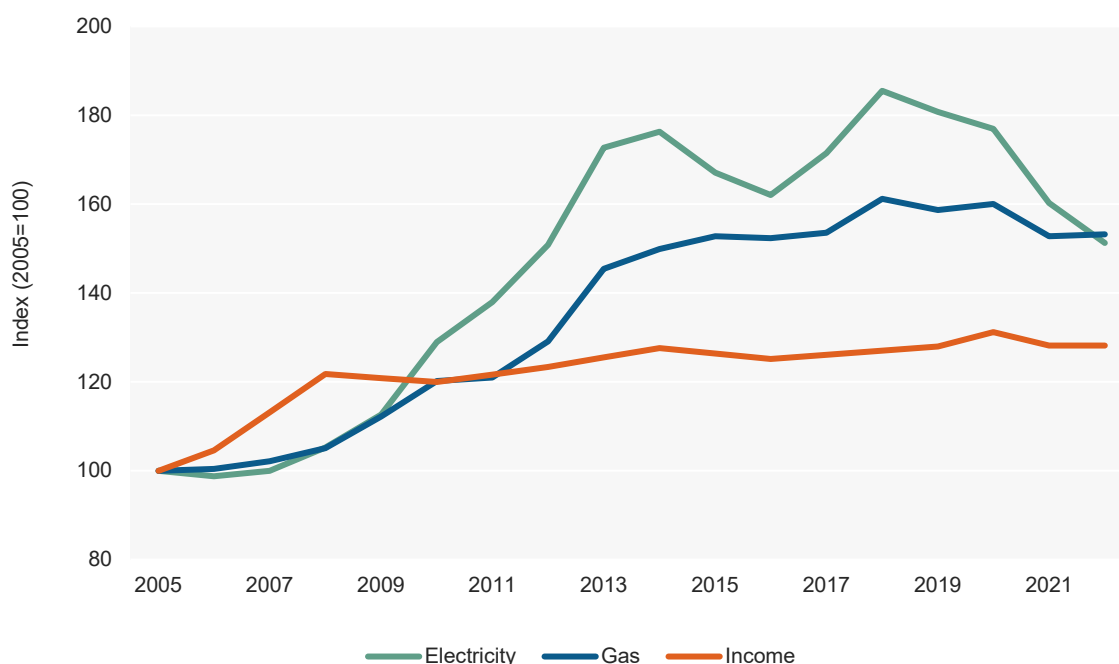
- June 2018, which we refer to as 2017-18
- June 2019, which we refer to as 2018-19
- June 2020, which we refer to as 2019-20
- June 2021, which we refer to as 2020-21
- June 2022, which we refer to as 2021-22
- September 2022, which we use as an approximation for 2022-23 prices.

Energy prices initially peaked in 2018–19, following a decade of price rises that significantly exceeded changes to household income (Figure 2.1). An easing of market conditions, along with a range of reforms including the DMO and VDO aimed at improving energy affordability, contributed to improved price outcomes in 2020–21. However, market volatility including increased wholesale costs in 2021–22 has caused the cost of energy to rise. Household

²² In this report the 2021-22 year is based on analysis of offers available in June 2022. This report also refers to the 2022-23 year, which is based on analysis of offers available in September 2022.

satisfaction with electricity has declined from last year attributed to increasing energy bills and cost of living expenses.²³

Figure 2.1 Long-term trends in energy prices and income (inflation adjusted)



Source: Electricity and gas index – ABS, Consumer Price Index, various years; income index – ABS, Household Income and Wealth, Australia, various years.

People's lived experience of energy prices differs markedly when navigating the retail market. Customers pay different prices for energy depending on where they live, what network infrastructure is required to supply them and the intensity of competition among retailers in their local area. Our analysis looks at outcomes across electricity and gas distribution networks to capture those differences. Customers' engagement in the market also contributes to the prices they pay. There remains significant price dispersion across offers in all electricity and gas distribution networks, indicating that customers can save on energy costs if they can effectively navigate the market. This is an even more important consideration as prices increase generally. Customers' ability to pay bills on time can further affect their energy costs, although conditional discounts for on-time payment have been less prominent in the market in recent years. We encourage people to seek out the best possible energy deal for their circumstances. Energy Made Easy – our independent and free price comparison website – provides the information customers need to compare the various offers in their area to see if they would be better off under a different deal.²⁴

The amount of energy customers use is another key factor in energy bill costs. Our analysis is based on energy use by an average customer in each electricity and gas distribution network and so does not represent all customers. Households consume different amounts of energy depending on how many people live in their home, the local climate, the energy

²³ Energy Consumers Australia, [Sentiment survey June 2022](#), ECA website, accessed 27 October 2022.

²⁴ [Energy Made Easy](#) website is available for customers in Queensland, NSW, South Australia, Tasmania, and the ACT. Victorian customers can use [Victorian Energy Compare](#) which is maintained by the Victorian Department of Environment, Land, Water and Planning (DELWP).

efficiency of their home and appliances (and how they use them), access to rooftop solar and whether they use gas as well as electricity. Because of these factors, some households may incur significantly higher or lower energy costs than presented in this report. For example, in 2021 customers on payment plans and hardship programs consumed on average over 45% and 60% more electricity respectively than a typical customer.²⁵ This is likely in part due to these households being unable to afford (or otherwise restricted from accessing) more efficient housing and appliances, including solar. Initiatives to overcome barriers to access the benefits of Consumer Energy Resources and energy efficiency continues to form an important part of any policy targeting affordability for those households.

2.1 Summary of findings

Electricity affordability marginally declined over the previous year in most jurisdictions except ACT, Victoria, and Tasmania, with up to 0.2% more of household disposable income required to meet typical electricity costs. Gas affordability was stable, with up to 0.1% more of household disposable income required to meet typical gas costs in some regions. These results show some volatility in energy affordability since 2017–18.

In 2021–22 low-income households with average energy use and on a typical market offer spent between 2.8% and 5.4% of their disposable income on electricity and between 1.5% and 3.5% on gas. For average income households, the proportion of income spent on energy was around half that of low-income households.

Customers on standing offers typically paid more for their energy than customers on market offers. In 2021–22 the difference in annual electricity cost between the median market offer and median standing offer was typically \$30 to \$250. Since the introduction of the DMO and VDO the gap between annual electricity bills for customers on market and standing offers has reduced significantly. However, this gap increased in 2021–22 in all jurisdictions except Victoria. The difference in annual gas cost between the median market and median standing offer was around \$25 to \$140 in most jurisdictions and around \$310 in Victoria.

Being on a market offer does not guarantee that a customer will receive the lowest possible energy prices, as there is a large range between these offers. The difference between the lowest and highest market offers for electricity and gas customers in 2021–22 was significant in some jurisdictions. As a result of international and domestic pressures including higher wholesale prices, many higher-priced retailer electricity and gas offers entered the market in the early months of 2022 forcing many customers to review their energy bills and shop around to achieve a better deal.

A low-income customer on the highest priced market offer would have spent up to 10% of their disposable income on electricity and 5.1% on gas. However, the level of these highest offers is not representative of the typical low-income customer, who would pay less of their disposable income on energy through more competitive market offers. Standing offers also rose during this period.

Electricity was more affordable in Victoria than elsewhere and least affordable in Tasmania. Gas affordability largely varies with household usage, with Victorian households spending

²⁵ ACCC, [Inquiry into the National Electricity Market, May 2022 report](#), ACCC, 2022.

the highest proportion of their disposable income on gas compared with Queensland households who spend the lowest.

2.2 Energy cost update

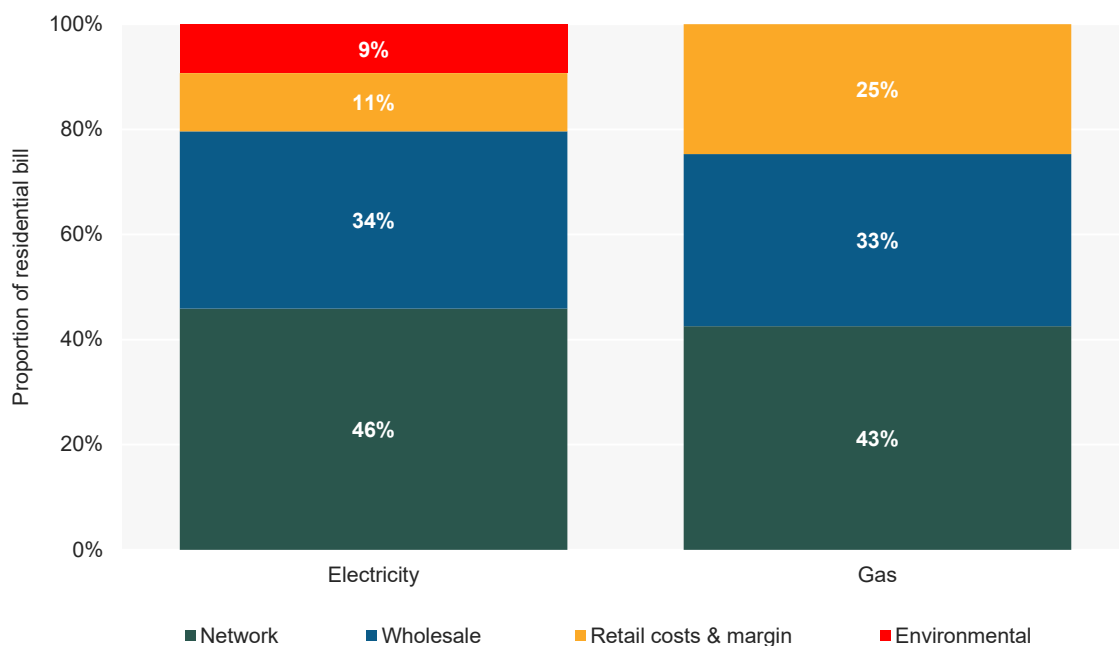
Retail energy bills largely reflect the underlying costs of producing and supplying energy. Retailers face costs in:

- purchasing energy from wholesale markets (including managing risk of wholesale price volatility and varying prices across jurisdictions)
- transporting that energy through electricity and gas networks (including charges that differ in each distribution network)
- complying with environmental schemes to fund renewable energy targets, feed-in tariffs for solar photovoltaic (PV) installations and energy efficiency measures
- serving their customers (for example, providing billing and customer service)
- competing in contestable markets (for example, campaigns to attract and retain customers).

Retail bills also include a profit margin for retailers. Figure 2.2 sets out this cost allocation for electricity and gas. As highlighted above, the contribution of each component varies by jurisdiction and electricity and gas distribution network.

Retail costs and margins reflect factors including economies of scale, the level of competition and regulatory costs. Gas retail markets are generally less competitive than electricity retail markets, reflecting the smaller number of customers buying gas services.

Figure 2.2 Composition of residential electricity and gas bills



Note: Average data across jurisdictions. Data may not add to 100% due to rounding.

Source: AEMC, *Residential electricity price trends 2021 - Final report*, AEMC, 2021; Gas – Oakley Greenwood, *Gas price trends review 2017, 2018*.

Data in sections 2.2.1 and 2.2.2 provides an indication of energy costs per household in 2022-23, based on average energy use for residential customers on single rate tariffs. It examines electricity costs over time in each electricity distribution network and highlights the median and range of standing and market offer prices.

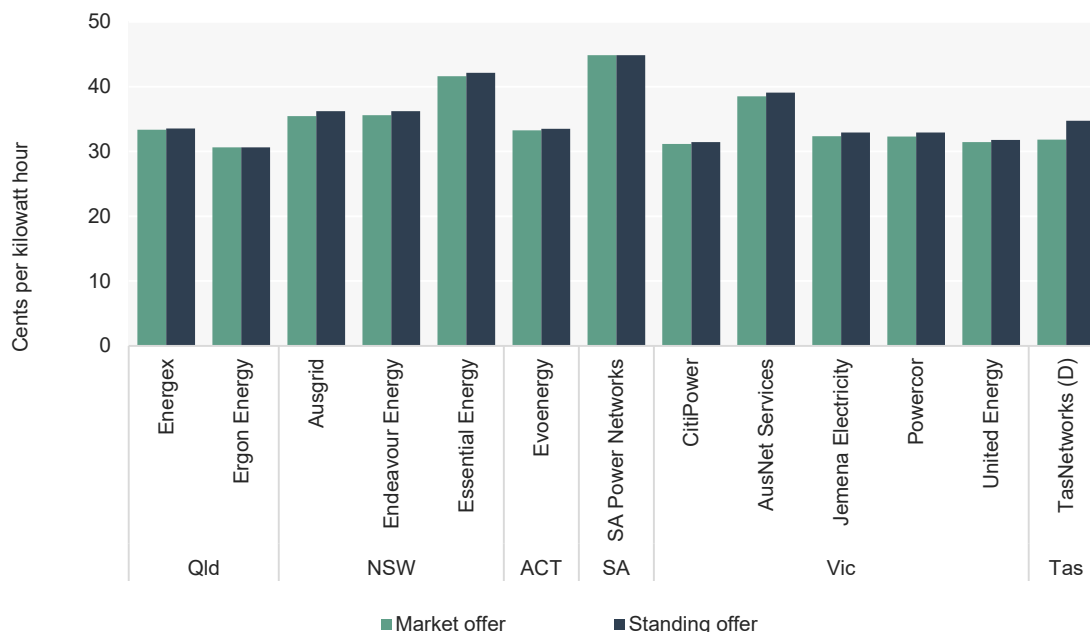
We base bill costs on available offers displayed over time on government price comparison websites Energy Made Easy and Victorian Energy Compare. Pricing data is aggregated across multiple pricing areas within some electricity and gas distribution networks. Bill estimates across areas are not directly comparable because each is based on average consumption in the relevant area.

2.2.1 Residential electricity prices have increased

Figure 2.3 shows median electricity costs in each major electricity distribution network²⁶ on a cents per kWh basis in September 2022. Standing offer prices are typically higher than those for market offers in normal market conditions.²⁷ Electricity prices are highest per unit in South Australia as in the previous year, where network costs are above the NEM average. Wholesale costs have also typically been higher in South Australia. In jurisdictions with multiple electricity distribution networks, electricity prices are typically higher in those networks that service rural customers.

²⁶ There are 5 electricity distribution networks in Victoria, 3 in NSW and 2 in Queensland. The ACT, the Northern Territory, South Australia, and Tasmania each have one electricity distribution networks. Appendix 5 includes a map of electricity distribution networks.

²⁷ The median standing offer is higher than the median market offer in all jurisdictions other than Ergon Energy's regional Queensland distribution network. Outcomes in the Ergon Energy distribution network reflect a subsidy paid to Ergon Energy to reduce costs for standing offer customers through the Queensland Government's Uniform Tariff Policy (which other retailers are not able to access).

Figure 2.3 Residential electricity median market and standing offer prices

Note: Offer data as at September 2022. Based on single rate offers for residential customers and average consumption in each electricity distribution network for 2021–22.

Source: AER analysis using offer data from Energy Made Easy and Victorian Energy Compare. Consumption based on Economic Benchmarking RIN responses.

Electricity prices have risen across all electricity distribution networks except in Victoria in 2021–22 (Figure 2.4). Median market offer increases ranged from 4% in Evoenergy (ACT) to an average of almost 15% in Ausgrid (NSW). This is a reversal of the previous year that showed prices easing in all electricity distribution networks in 2020–21, after having reached historically high levels in 2018 and 2019.

From June to September 2022, electricity market offers have experienced a price spike in all jurisdictions except for Ergon Energy. Prices rose between 9% to 20% for the median market offers. Standing offers also increased between 7% to 15% in DMO regions²⁸ in the 3 months to September 2022.

Rapid increases in retail prices are driven by increasing wholesale energy costs. As a result of a combination of international and domestic pressures, wholesale energy markets have witnessed unprecedented volatility, leading to a significant increase in wholesale prices in 2021 and 2022. Factors that have led to supply side instability included generator outages and constraints, fuel supply issues, and potential supply shortages combined with extremely high international coal and gas prices. Higher wholesale energy costs do not flow to retailer costs immediately however price increases will be eventually felt by customers.²⁹

As a result of recent market volatility, several retailers have priced their market offers significantly above the median standing offers in most electricity distribution networks (excluding Ergon Energy in Queensland, and in Tasmania). A few retailers also informed

²⁸ DMO regions include distribution networks Ausgrid, Essential Energy and Endeavour Energy in NSW, Energex in Southeast Queensland, and SA Power Networks in South Australia.

²⁹ AER, *State of the Energy Market Report 2022*, AER, 2022.

customers via their websites that they were not offering electricity market contracts at that time. Market offers that fall into this category have been removed from the report analysis.³⁰

In 2022, market offers showed larger ranges from lowest to highest price than in previous years because a number of published offers have been priced above the DMO. There are some retailers who structure their offers to apply a lower 'price per kWh' on consumption levels that closely aligned to the DMO model annual usage³¹, then apply a higher 'price per kWh' on consumption amounts that exceed this amount. These offer types would typically be the more expensive in the market and priced above the median market offer because 'average annual residential electricity usage'³² used in this report is higher than DMO model annual usage. (Figure 2.4).

The difference between median market and standing offers noticeably narrowed over the past 2 years in all areas except for Tasmania and regional Queensland. This was most pronounced in those regions that imposed price caps on standing offers from July 2019 through the DMO – south-east Queensland, NSW, and South Australia. The gap between median market and standing offers in DMO regions moved from market offers being 15% to 22% lower than standing offers in June 2021 to a mere 0% to 2% by September 2022. Victoria also experienced a similar movement, reflecting a difference between median market and standing offers of 14% to 16% in June 2021 narrowing to 1% to 2% by September 2022.

Despite this narrowing between market and standing offer prices, savings are still available for customers who move from a standing to a market offer at certain retailers. A customer moving from a standing offer to a market offer for selected retailers in September 2022 could have reduced their annual electricity costs by around \$216 to \$404 in NSW, \$120 in south-east Queensland, \$122 in South Australia, \$120 to \$193 in Victoria and \$345 in the ACT. Potential savings were lower in the less competitive markets of Tasmania and regional Queensland. Most customers in those two markets remain on standing offers.

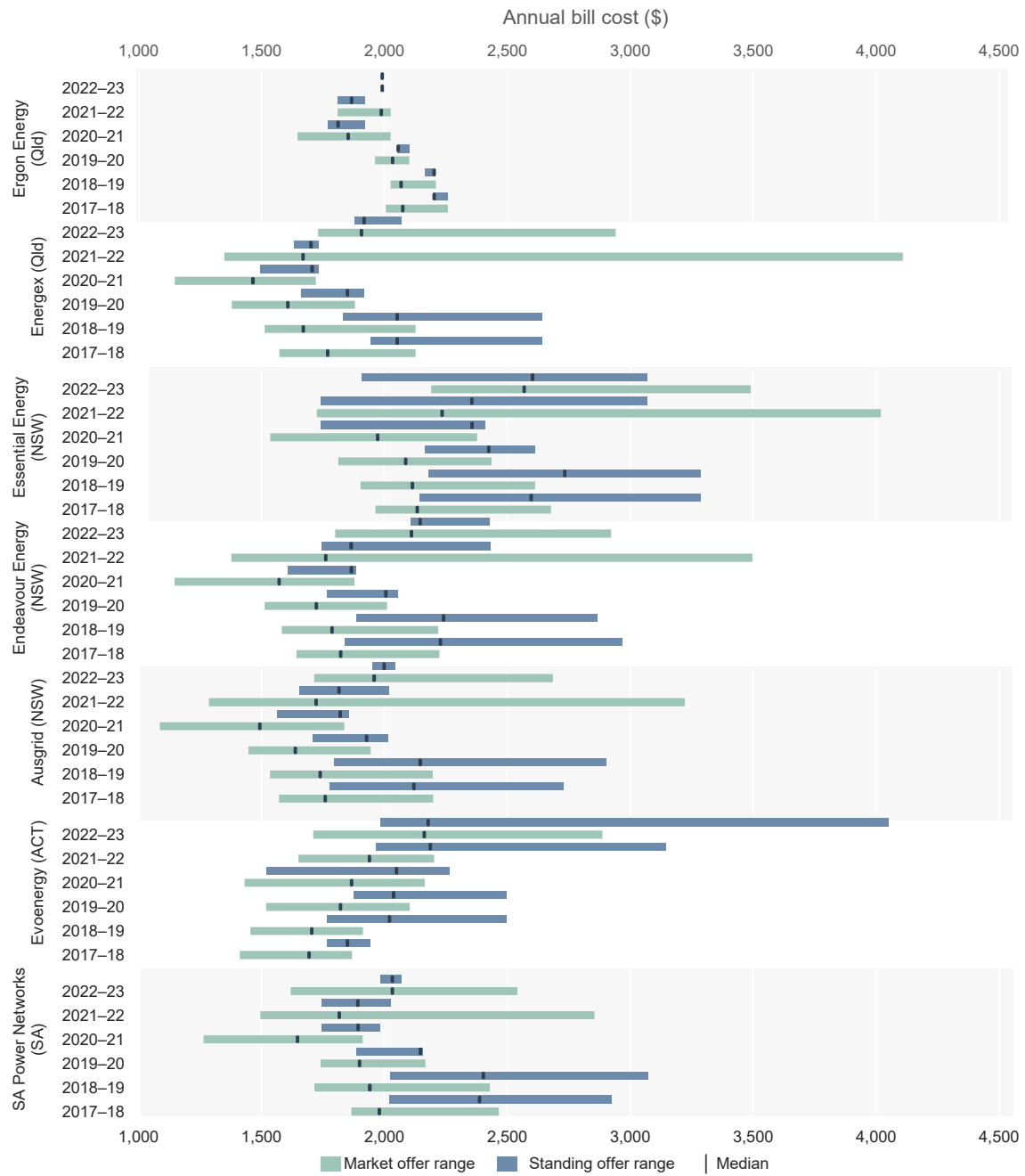
Savings are available for customers who select a market offer, but they must be able to identify the market offer that provides the lowest cost for their electricity use. A typical customer could pay appreciably more for electricity if they are on the highest cost market offer compared with the lowest cost market offer. The difference between the highest and lowest cost market offer varies by electricity distribution network. As at September 2022, in NSW, it ranges from \$972 to \$1,300, in south-east Queensland \$1,211, in South Australia \$922, in Victoria \$813 to \$948 and in the ACT \$1,176.

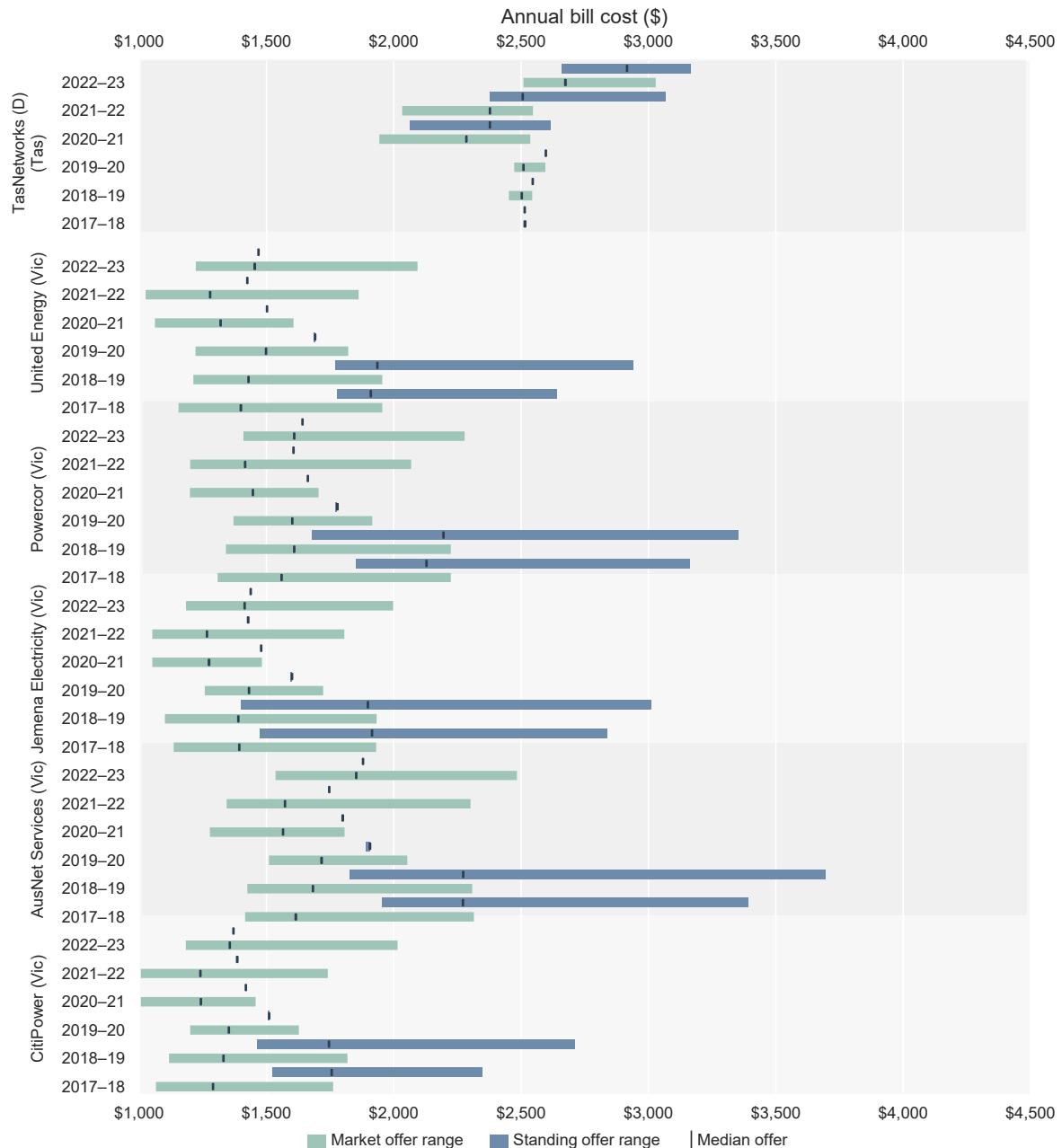
³⁰ Market offers published by Radian Energy and ReAmped Energy have been removed from the analysis.

³¹ Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019 s16(1)(a)(i).

³² See Appendix 2: Pricing and affordability methodology.

Figure 2.4 Residential electricity market and standing offers





Note: In Ergon Energy there are few market offers available and some offers are restricted to specific geographic areas. Based on single rate offers for residential customers and average consumption in each electricity distribution network. Average consumption for 2021–22 has been applied to all periods. Some offers listed may not be available to all customers in an electricity distribution network.

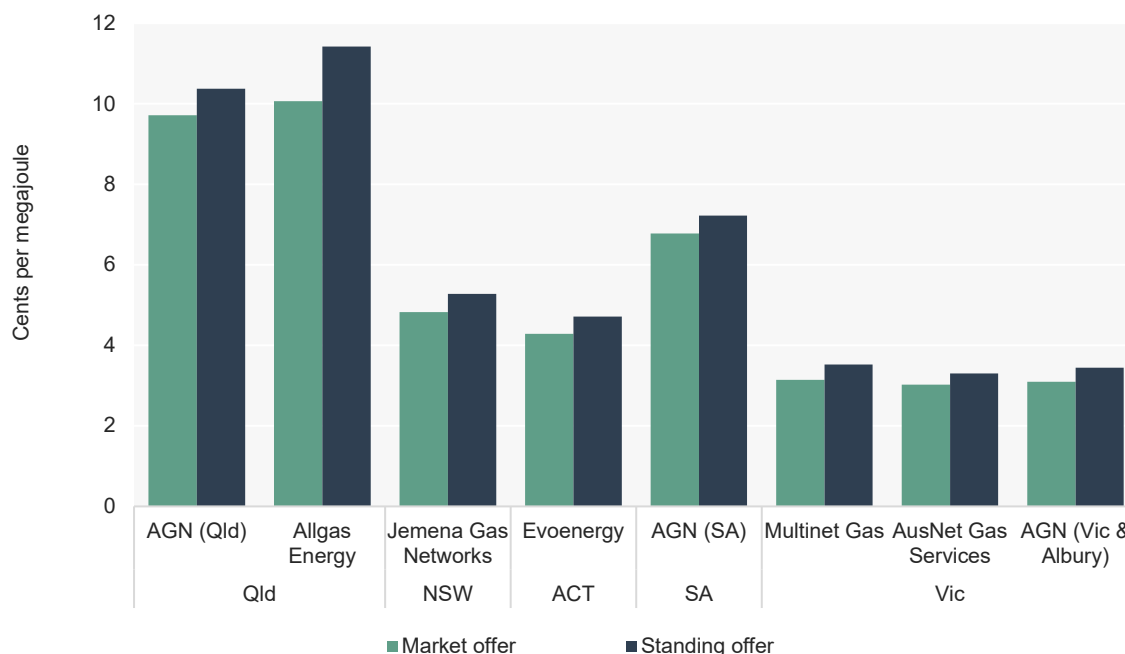
Source: AER analysis using offer data from Energy Made Easy and Victorian Energy Compare. Consumption based on Economic Benchmarking RIN responses.

2.2.2 Residential gas prices have increased

Figure 2.5 shows median gas costs in each major gas distribution network on a cents per megajoule (MJ) basis in September 2022. Gas costs are lowest per unit in Victoria, partly because of Victoria's relatively high number of residential gas customers creating savings due to economies of scale in pipeline network costs. The high residential customer numbers have also driven household usage, meaning that fixed supply charges are spread over a greater base when assessing costs on a per unit of usage basis. However, this higher gas usage means that annual gas costs are higher in Victoria than other jurisdictions despite the

lower cost per unit (Figure 2.6). Costs per unit of consumption are highest in Queensland. This reflects both low gas penetration and low average household gas use (due to low heating requirements, which account for the majority of gas use in other jurisdictions).

Figure 2.5 Residential gas median market and standing offer prices



Note: Offer data as at September 2022. Based on offers for residential customers and estimated consumption in each jurisdiction.

Source: AER analysis using offer data from Energy Made Easy and Victorian Energy Compare. Consumption based on *Frontier Economics, Report to the AER - Residential energy consumption benchmarks*.

Following a similar trend to the electricity market, gas prices have risen within all gas distribution networks in 2021–22. Median market gas offer increases ranged from 4% in Jemena, NSW, 9% in Victoria gas distribution networks, and up to 20% in AGN, Queensland. This is a reversal of the previous broader trend observed, which saw market offer prices easing in most gas distribution networks in 2020–21 after having reached a historical peak in 2018 and 2019 (Figure 2.6).

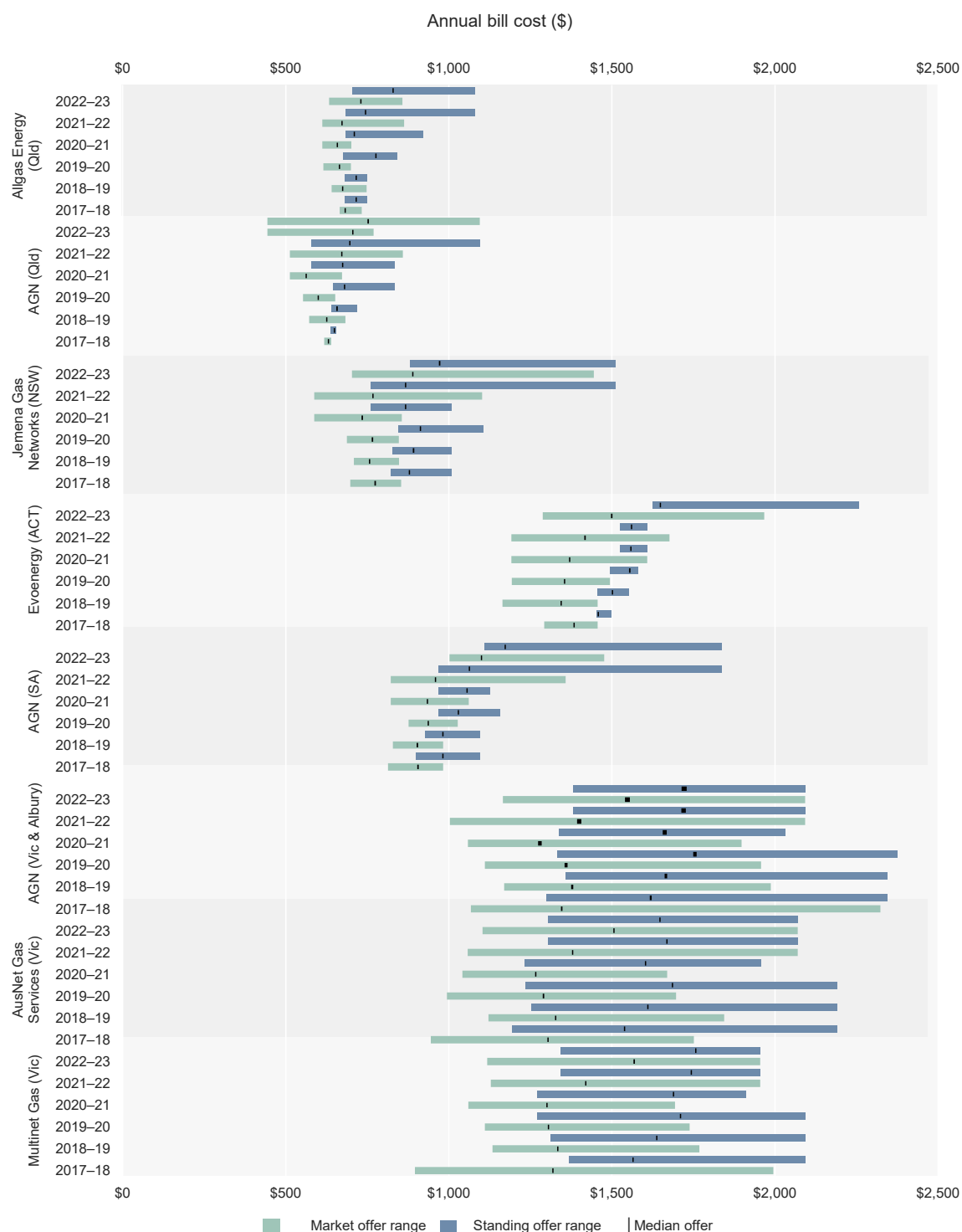
Gas market offers continued to increase in all jurisdictions in the 3 months to September 2022. The median market offer prices rose by 16% in NSW, 15% in South Australia, around 10% in all Victorian gas distribution network, 6% in the ACT and a range of 5% to 9% in Queensland from June 2022.

Movements in wholesale gas prices have been the primary reason for gas retail price increases. In recent times, international coal and gas prices climbed rapidly driven by factors including the war in Ukraine, domestic fuel supply concerns and plant outages. Fluctuations in wind and solar output and the climate (an early winter) in certain areas created higher than expected demand. The resulting ‘energy squeeze’ has led to higher wholesale and retail prices.³³

³³ AER, *Wholesale markets quarterly Q2 2022*, AER, 2022.

Savings are available for customers who move from a standing to a market offer. A typical customer moving from the median standing offer to the median market offer at September 2022 could have reduced their annual gas costs by between 7% and 14% (\$47 to \$149) in NSW, Queensland, South Australia, and the ACT. Potential savings were higher in Victoria, up to 12% (\$189).

Like electricity offers, customers taking up a market offer need to identify the offer that provides the lowest cost for their gas use. A typical customer could pay \$225 to \$966 more for gas if they are on the highest cost market offer compared with the lowest cost market offer. Prices for the most expensive market offers are often close to (and sometimes higher than) standing offer prices.

Figure 2.6 Residential gas market and standing offers

Note: Based on offers for residential customers and estimated consumption in each jurisdiction.

Source: AER analysis using offer data from Energy Made Easy and Victorian Energy Compare. Consumption based on *Frontier Economics, Report to the AER - Residential energy consumption benchmarks*.

2.3 Discounting practices are declining

Retailers use headline discounts as a method to promote energy offers. These discounts can provide a simple comparison point for customers to identify the relative value of different energy offers. Some discounts are conditional on customers meeting certain requirements,

such as paying bills on time or paying via direct debit. Conditional discounts are a way for retailers to encourage prompt payment of bills, but in effect they operate as late payment penalties and can contribute to financial stress for customers who are unable to meet the conditions.

The ACCC reported that, for residential customers on electricity contracts with conditional discounts in 2020–21, around 11% did not meet the conditions required to receive the discounted price.³⁴ Customers in financial difficulty were more likely to miss out on the discounts, with 18% of hardship customers and 17% of customers on payment plans not meeting the required conditions.

Rules introduced since 2019 do not prevent conditional discounting but seek to manage the risk to consumers of onerous conditional discounts.³⁵ These changes have influenced retailers' approach to discounting, with a general shift away from the use of conditional discounts. Where conditional discounts are still used, the value of these discounts has significantly reduced.

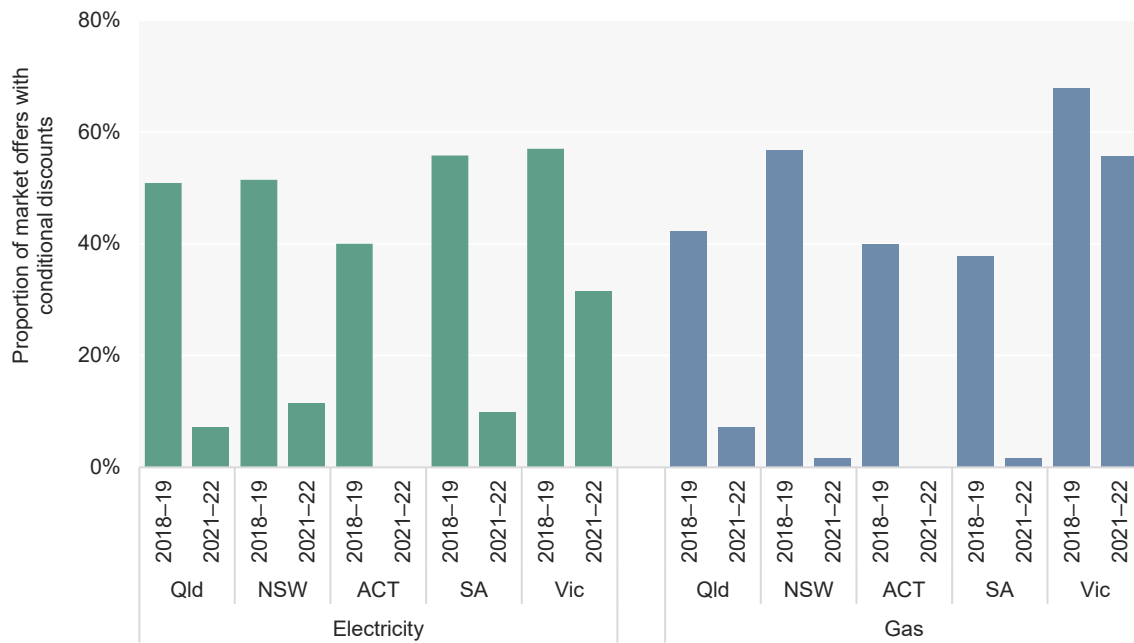
In electricity, the proportion of advertised offers with a conditional discount declined significantly from 2018–19 following new rules limiting how conditional discounts can be advertised (Figure 2.7). Of the 28 retailers with market offers as at June 2022, only 5 included conditional discounts in any offers. These offers represented less than 11% of market offers across all regions, except in Victoria.

The size of conditional discounts has also decreased. In 2018–19 the value of conditional discounts (or effective penalty) was up to \$480 a year on electricity offers (representing more than 40% of the entire bill) (Figure 2.8). By June 2022 the value of conditional discounts had eased across all jurisdictions, with the maximum discount on offer around \$100.

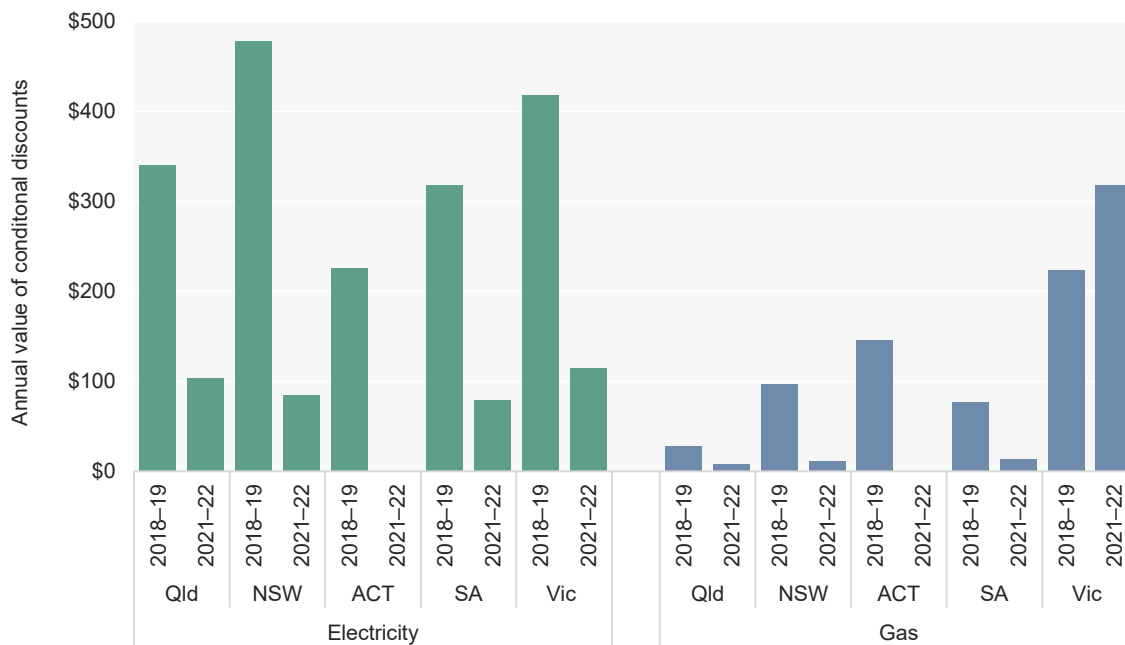
Gas offers have followed a similar trend. A total of 4 retailers included conditional discounts in their gas offers in June 2022, with the conditional discount equivalent to around 1% of the annual bill except in Victoria.

³⁴ ACCC, [Inquiry into the National Electricity Market - May 2022 report](#), ACCC, 2022.

³⁵ For example, restrictions on how retailers can advertise conditional discounts on electricity offers came into effect in south-east Queensland, South Australia, NSW, and Victoria on 1 July 2019 under the DMO and VDO rules. From 1 July 2020 the AEMC's Regulating conditional discounting rule change capped the level of payment related conditional discounts and fees in energy offers to reasonable costs (in Victoria, a similar rule caps pay on time discounts by reference to a retailer's cost of debt).

Figure 2.7 Proportion of market offers with conditional discounts

Note: Based on single rate offers for residential customers and average consumption in each gas distribution network.
Source: AER analysis using offer data from Energy Made Easy and Victorian Energy Compare. Consumption based on Economic Benchmarking RIN responses.

Figure 2.8 Average value of conditional discounts for market offers

Note: Based on single rate offers for residential customers and average consumption in each electricity and gas distribution network.
Source: AER analysis using offer data from Energy Made Easy and Victorian Energy Compare. Consumption based on Economic Benchmarking RIN responses.

2.4 Energy affordability

Energy bills are a significant cost-of-living issue for households. Recent reforms to improve affordability focus on price competition at the retail level, including the DMO and VDO which limit standing offer prices and rules on conditional discounting. Improving energy affordability remains a focus of energy industry reform. This could include:

- reducing costs across the energy supply chain and increasing the effectiveness of competition
- improving access to concession arrangements relevant to energy customers
- improving access to sustainable payment plans and effective hardship program arrangements³⁶ for customers facing difficulties meeting their energy costs
- improving access to energy efficiency programs and solar photovoltaic systems for customers experiencing vulnerability.

Implementation of any reforms requires coordinated action by governments and the energy industry. Complementary reforms are being progressed to address barriers to consumers engaging with their retailer and accessing the market, including addressing market-based complexities (such as inaccessible information, information asymmetry or a lack of easy comparability of offers). Steady progress has been made in some of these areas in recent years. The AER's work with [Towards energy equity – a strategy for an inclusive energy market](#) is an example of such reforms.

2.4.1 How we assess energy affordability

We measure energy affordability based on how much disposable income households spend on energy bills. The 3 key inputs into our analysis are:

- average energy use in each jurisdiction or electricity and gas distribution network
- energy charges, represented as annual bills (based on average usage)
- disposable income for low-income and average-income households in each jurisdiction. Appendix 8³⁷ contains maps of NEM regions and greater capital city areas setting out the geographic distribution of low-income households based on 2021 Census data.

The affordability analysis focuses on the 5 jurisdictions where the AER has a retail regulatory role (Queensland, NSW, the ACT, South Australia, and Tasmania). Victoria, where the ESC has regulatory responsibility is also included for completeness.

Disposable income represents the income available to households to pay for goods and services after income taxes, levies, and surcharges.

³⁶ All retailers are required to publish a hardship policy approved by the AER according to our [Customer Hardship Policy Guideline](#). The *National Energy Retail Law* and *National Energy Retail Rules* set down minimum assistance that retailers must provide to customers on hardship programs.

³⁷ Maps located on the AER's *2021-22 Annual Retail Market Report* webpage.

The analysis covers broad affordability trends over the past 5 years. It does not account for the specific impacts of the COVID-19 pandemic in 2019–20 and 2021–22. Outcomes for the period March 2020 to June 2021 will likely vary from outcomes before March 2020 due to shifts in income for many households. Income shifts are difficult to quantify because income would have fallen in those households experiencing job losses or reduced work hours but risen in those households receiving additional government assistance over the period.

COVID-19 pandemic impacts

- Social restrictions imposed to limit the spread of COVID-19 pandemic resulted in a sharp initially increase in unemployment and underemployment from March 2020, increasing financial stress on those affected households. Not all households were impacted to the same extent though, with an increase in government support payments cushioning the impact for some.
- Preliminary estimates of household income from the Survey of Income and Housing released by the Australian Bureau of Statistics³⁸ show an increase in the median equivalised disposable income for those in the lowest quintile in the last 6 months of 2020 (6% and 15% in September and December 2020, respectively, when compared with the same period in 2019).
- These lower income households are more dependent on government assistance than other households. Around 57% of households in the lowest equivalised disposable income quintile relied on government pensions and allowances as their main source of income.
- Affordability concerns do not just arise from income impacts. The COVID-19 pandemic had an impact on energy use in late 2019–20 and throughout 2021–22. Social restrictions required people to spend more time in their homes in some jurisdictions, including for work where possible. This likely resulted in an increase in electricity and gas use by households and, subsequently, higher energy bills.³⁹ However, a record uptake of rooftop solar has offset this increase in energy usage in some jurisdictions.
- The combination of reduced income and higher energy bills resulted in more households and small businesses seeking payment support from their retailer such as debt deferrals and payment extensions⁴⁰. Government assistance was reduced from September 2020 and ended in March 2021, which may result in more households encountering affordability concerns.

³⁸ ABS, [Household financial resources – December 2020](#), ABS website, accessed 18 October 2021.

³⁹ For example, smart meter data for Victorian households shows that average electricity usage was 11.4% higher in winter 2020 than in winter 2019. This corresponded with a period of lockdown across the jurisdiction.

⁴⁰ AER, [Statement of Expectations of energy businesses: Protecting customers and the energy market during COVID-19](#), AER, 2022.

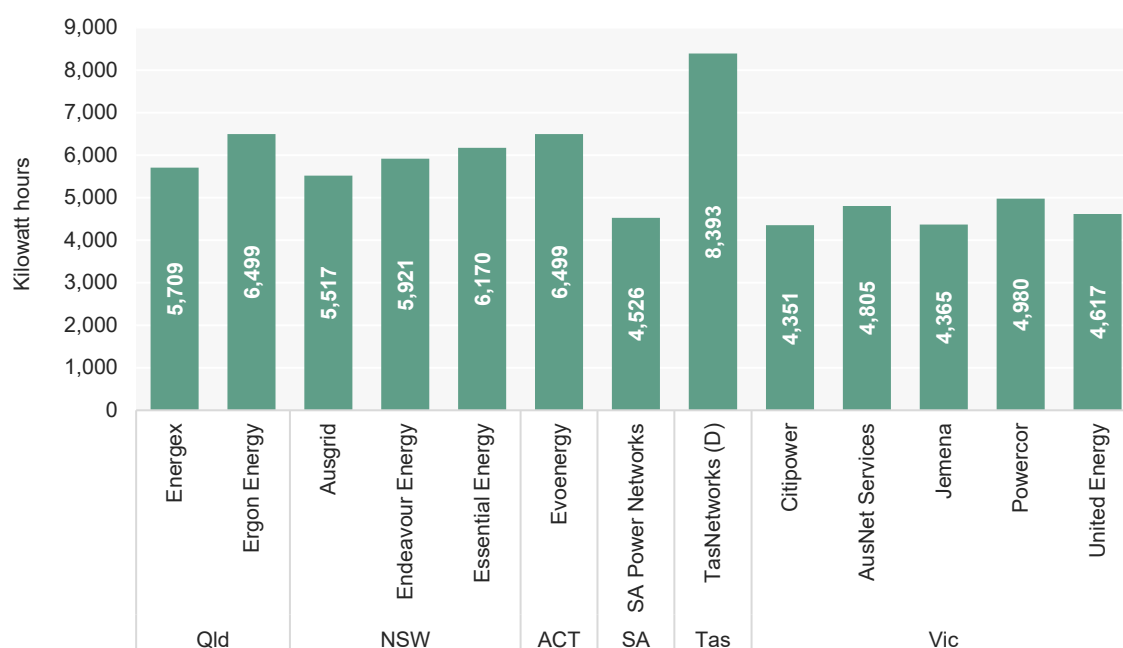
Energy use

Usage charges represent the largest component of energy bills for most households.⁴¹ Therefore, a customer's energy use significantly impacts energy affordability.

We estimated average annual residential electricity use in each electricity distribution network based on data provided by network businesses on the volume of electricity supplied to customers through the networks (Figure 2.9).⁴² This measure is an estimate of the volume of electricity billed to customers through their retailer. Total electricity consumption by households is higher because it includes electricity supplied through electricity distribution networks, as well as that supplied from rooftop solar PV systems.

Electricity usage is highest in the ACT and Tasmania. Key drivers of electricity usage are climate (with greater heating requirements in some jurisdictions) and the penetration of gas as an alternative fuel. Tasmania, in particular, has low gas penetration for households. Conversely, most households in Victoria have both electricity and gas connections,⁴³ resulting in the lowest average household electricity consumption.⁴⁴

Figure 2.9 Average annual household electricity usage



Note: Data for 2021–22.

Source: Economic Benchmarking RIN responses.

Gas is primarily used in homes for space heating, water heating and cooking. The requirement for space heating is heavily dependent on climate. Customers in colder climates

⁴¹ Most energy offers include usage charges as well as a fixed supply charge. Some offers also include membership fees or additional charges for metering.

⁴² This data is updated annually by network businesses in response to RINs issued by the AER.

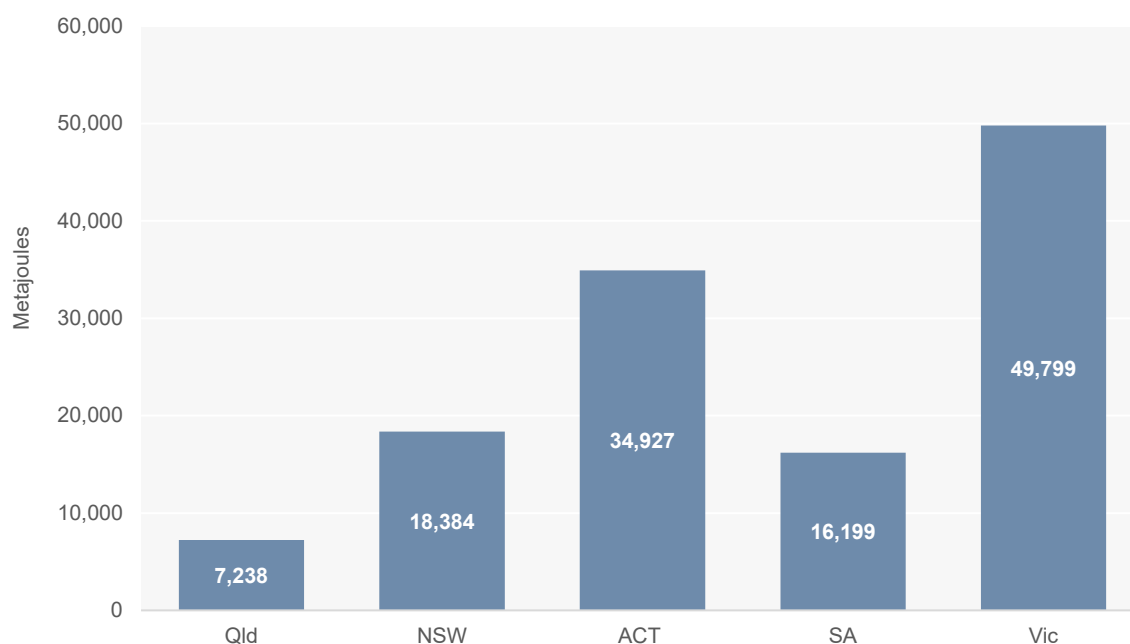
⁴³ Further information on gas customers in each state or jurisdiction is provided in section 3.3 of the AER's [2021 Gas Network Performance Report](#).

⁴⁴ SA Power Networks is lower than Powercor and AusNet Services.

tend to use the most gas (such as those in Victoria and the ACT). Queensland customers use the least gas due to having a warmer climate (Figure 2.10).

Current gas consumption estimates by jurisdiction are based on a consumption benchmark report prepared for the AER in 2020. These estimates update the previous benchmarks from 2017.⁴⁵ When comparing 2020 to 2017, gas usage has broadly reduced by between 7% and 20% depending on the jurisdiction. This reflects improvements in the energy efficiency of appliances and a continuing trend of substituting electricity appliances for gas appliances.

Figure 2.10 Average annual household gas usage



Source: Consumption based on *Frontier Economics, Report to the AER - Residential energy consumption benchmarks*.

Energy charges

We sourced electricity and gas offers in Queensland, NSW, the ACT, South Australia, and Tasmania from the Energy Made Easy website at a point in time each year from 2017–18 to 2022–23. For Victoria, we sourced offers from the Victorian Energy Compare website. Our analysis relates to generally available single rate or ‘flat’ offers (where usage charges do not vary by time of day), which remains the most common tariff type in most jurisdictions.

We estimated annual bills for each offer by applying our usage assumptions to the usage charges in each offer and then adding fixed supply charges and any other ongoing fees. Our analysis is based on the median annual bill cost under both market and standing offers.

For low-income households, we adjusted annual bills to account for relevant government concessions.

⁴⁵ Frontier Economics, [Report to the AER - Residential energy consumption benchmarks](#), Frontier Economics, 2020; ACIL Allen, [ACIL Allen report to the AER - Energy Consumption Benchmarks](#), ACIL Allen, 2017.

Income

The level of disposable income is a key element in assessing affordability of essential services such as energy. Disposable income represents the income available to households to pay for goods and services after income taxes, levies, and surcharges. We use Australian Bureau of Statistics (ABS) data on household disposable income, where available.⁴⁶ We present this data as averages for all households and low-income households.

Average incomes vary across jurisdictions, but this variation is less pronounced among low-income households. The average annual income for low-income households in 2021–22 was \$33,000 to \$40,000 across all jurisdictions excluding the ACT which is \$52,000. Average income across all households in 2021–22 ranged from \$84,000 in Tasmania to \$131,000 in the ACT. Higher average incomes in the ACT contributed to better energy affordability outcomes in that jurisdiction.

2.4.2 Energy affordability over the past 5 years

Two key metrics are used to provide an overall picture of changes in electricity affordability for households – the annual cost of energy bills based on the median and range of available offers, and those annual bills as a percentage of disposable household income. Where we refer to ‘affordability’ in the analysis, we are referring to percentage of disposable income.

Our analysis focuses on low-income households, for which energy affordability is critical. We also include some analysis for all households to provide an indication of affordability more broadly and provide context to the low-income household analysis.

Electricity affordability

Electricity affordability improved across all jurisdictions in 2021–22 for both low-income and average-income households. Incremental improvements in affordability have occurred since 2017–18.

Figure 2.11, Figure 2.12, Figure 2.13 and Figure 2.14 show market and standing offer electricity bills for low-income and average-income households from 2017–18 to 2021–22. The percentage of disposable household income spent on electricity by households is also shown.

In 2021–22 Victoria was the most affordable jurisdiction for electricity. This largely stems from relatively low electricity use (linked to high gas penetration). Low-income households in Victoria also had the second highest average incomes across the jurisdictions (behind the ACT).

Most jurisdictions saw a decline in affordability for low-income and average-income households in 2021–22 compared to last year. The 2021–22 median offers as a proportion of income for the majority of electricity distribution networks increased from the previous year. In contrast, Victoria showed a broad improvement across its 5 distribution networks.

⁴⁶ The ABS typically updates income data every 2 years, with the most recent data available for 2019–20. For more recent years where no income data is available, we use CPI and WPI to adjust the ABS income data.

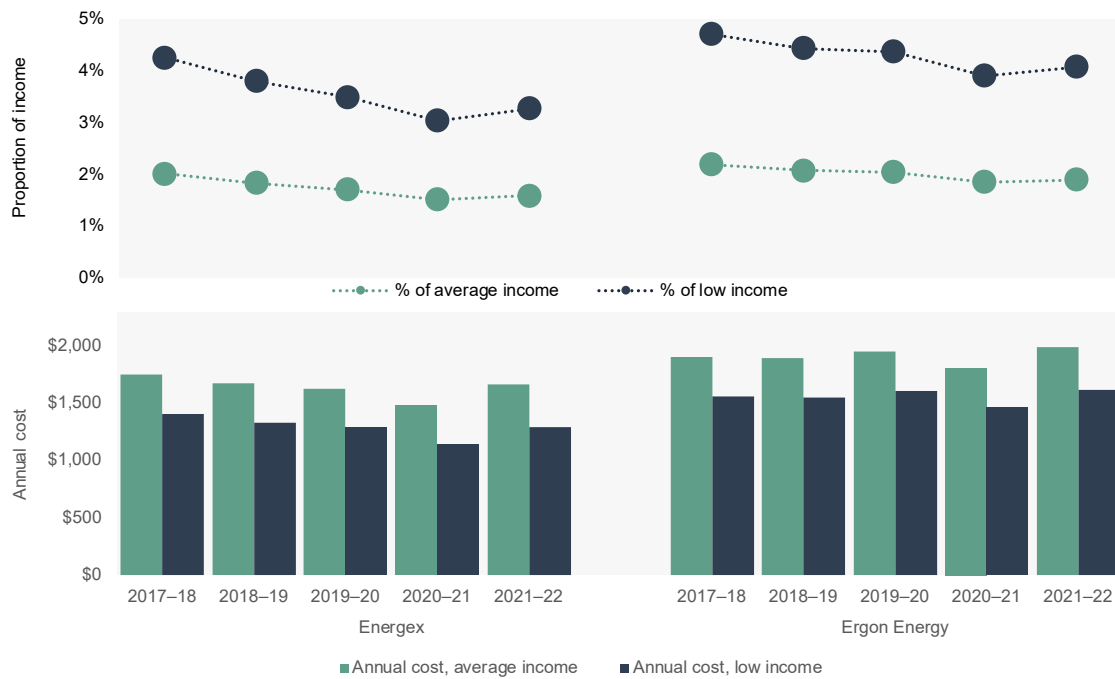
Tasmania is the least affordable jurisdiction for both average-income and low-income households, despite relatively low electricity costs on a per unit basis. Tasmanian households have significantly higher average usage than the rest of Australia, partly due to climate and partly due to the low penetration of gas.

In NSW, average bills in the regional Essential Energy distribution network remain less affordable than bills in the Ausgrid and Endeavour Energy distribution networks. Similarly, in Queensland, bills continue to be less affordable in the regional Ergon Energy distribution network than the Energex area (which serves south-east Queensland). This reflects both higher electricity usage in these electricity distribution networks and higher prices (largely driven by network costs⁴⁷). Use of average incomes across jurisdictions may overstate affordability in regional areas, where average incomes are typically lower than across the jurisdiction more broadly.

The ACT continues to have relatively affordable electricity due to its higher incomes for households compared with the rest of the country.

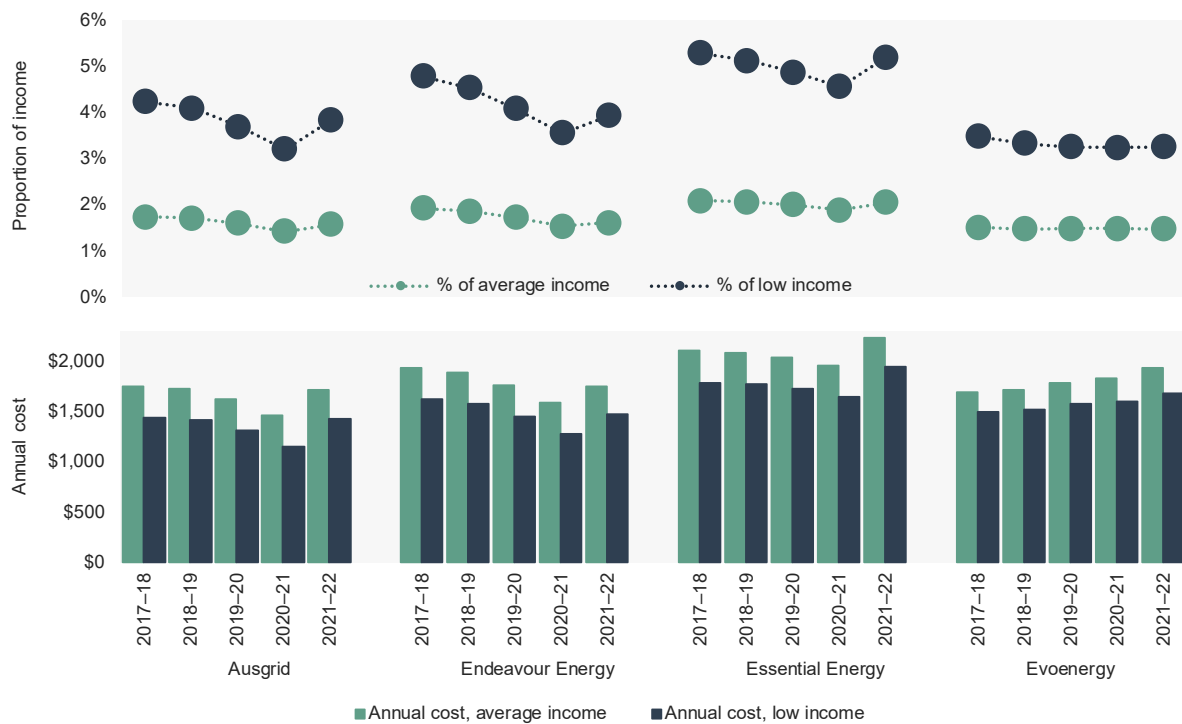
Low-income households on the median market offer in each jurisdiction paid approximately more than double the proportion of their disposable income for electricity compared with an average-income household. In 2021–22 low-income households on the median market offer spent from 2.8% (CitiPower and Jemena Electricity in Victoria) to 5.2% (Essential Energy in NSW) and 5.4% (TasNetworks (D) in Tasmania). In comparison, the average-income household spent 1.2% (CitiPower, United Energy and Jemena in Victoria) to 2.8% (TasNetworks (D) in Tasmania).

⁴⁷ In the Ergon Energy distribution network, the regulated standing offer is based on network prices for south-east Queensland. Other offers in this area will reflect costs from the Ergon Energy distribution network.

Figure 2.11 Electricity bills for low and average-income households – Queensland

Note: Based on offers for residential customers in Queensland. Average household consumption for the year ending June of each period was used in annual bill calculations. Percentage of income figures refer to mean disposable income of all and low-income households.

Source: Offer data from Energy Made Easy. Consumption estimates based on Economic Benchmarking RINs. Income data are unpublished ABS estimates of household disposable income.

Figure 2.12 Electricity bills for low and average-income households – NSW and the ACT

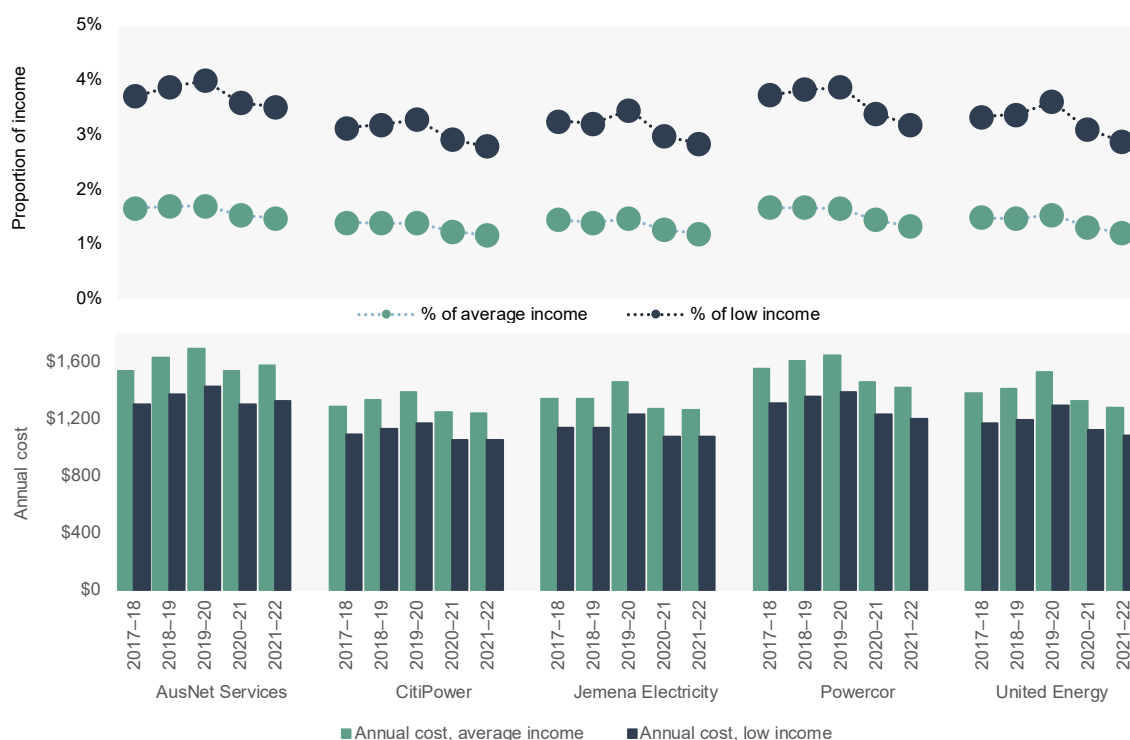
Note: Based on offers for residential customers in NSW and the ACT. Average household consumption for the year ending June of each period was used in annual bill calculations. Percentage of income figures refer to mean disposable income of all and low-income households.

Source: Offer data from Energy Made Easy (AER). Consumption estimates based on Economic Benchmarking RINs. Income data are unpublished ABS estimates of household disposable income.

Figure 2.13 Electricity bills for low and average-income households – South Australia and Tasmania

Note: Based on offers for residential customers in South Australia and Tasmania. Average household consumption for the year ending June of each period was used in annual bill calculations. Percentage of income figures refer to mean disposable income of all and low-income households.

Source: Offer data from Energy Made Easy (AER). Consumption estimates based on Economic Benchmarking RINs. Income data are unpublished ABS estimates of household disposable income.

Figure 2.14 Electricity bills for low and average-income households – Victoria

Note: Based on offers for residential customers in Victoria. Average household consumption for the year ending June of each period was used in annual bill calculations. Percentage of income figures refer to mean disposable income of all and low-income households.

Source: Offer data from Energy Made Easy and Victorian Energy Compare. Consumption estimates based on Economic Benchmarking RINs. Income data are unpublished ABS estimates of household disposable income.

Range of electricity costs and affordability for low-income households

Consistent with previous years, bills for customers on standing electricity offers were more expensive than bills for customers on market offers in all jurisdictions in 2021–22 (Figure 2.15). Only a small number of customers are on standing offers in most jurisdictions but, to the extent that these are low-income households, they will be the most affected by affordability issues.

Reforms over the past 3 years have focused on encouraging customers to move from standing offers to cheaper market offers. These include requirements on retailers to inform customers before any change in energy charges; or when moving a customer from a market to a standing offer at the expiry of their current offer. Additionally there are requirements in Victoria, for notices on customer bills to indicate whether the customer is on the cheapest market offer from their retailer.⁴⁸

The *Better Bills Guideline – Version 2* also commenced in August 2022 with implementation required by 30 September 2023. It seeks to make it easier for consumers to engage with the energy market by providing information to help them understand and compare their plan,

⁴⁸ ESC, [Victorian Energy Market Update – June 2021](#), ESC, 2021.

identify whether their retailer may be able to provide a better offer, or consider options for new types of energy services⁴⁹

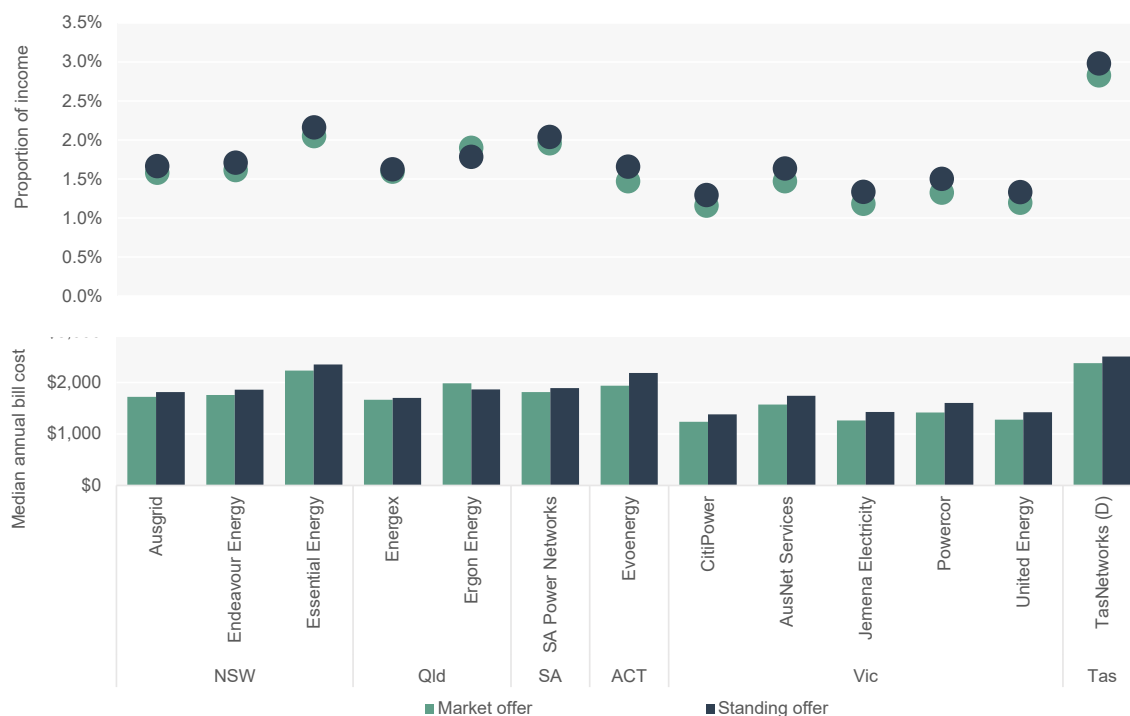
Customers may achieve savings by switching from a standing to a market offer. However, there is now a smaller saving compared with previous year where there was a wider gap between median standing and median market offers. For example, low-income households on the median standing offer in the regional NSW Endeavour Energy distribution network could save 1.3% (\$485) of their disposable income by switching to the lowest market offer. In the prior year, that same low-income household could have achieved a reduction of 1.4% (\$533) when switching

In non-Victorian electricity distribution networks, the benefits of switching from standing to a market offer varied considerably. In the ACT, there would be a saving 0.7% (\$248) of a low-income households' disposable income by switching offers, whereas in Energex in Queensland only 0.1% (\$32) is the resulting benefit for changing offers.

While in Victoria, prices were lower than other jurisdictions but switching from a standing offer to a market offer still provided saving opportunities. Across the 5 Victorian electricity distribution networks, low-income households could save between \$119 (CitiPower) and \$156 (Powercor Australia) a year by switching from the median standing offer to the lowest market offer.

For those already on market offers, low-income households across NSW, the ACT, South Australia, and the Energex (Queensland) distribution network had the largest potential savings. For example, by moving from the median market offer to the lowest offer, low-income households in the Essential Energy (NSW) distribution network could save \$508 a year.

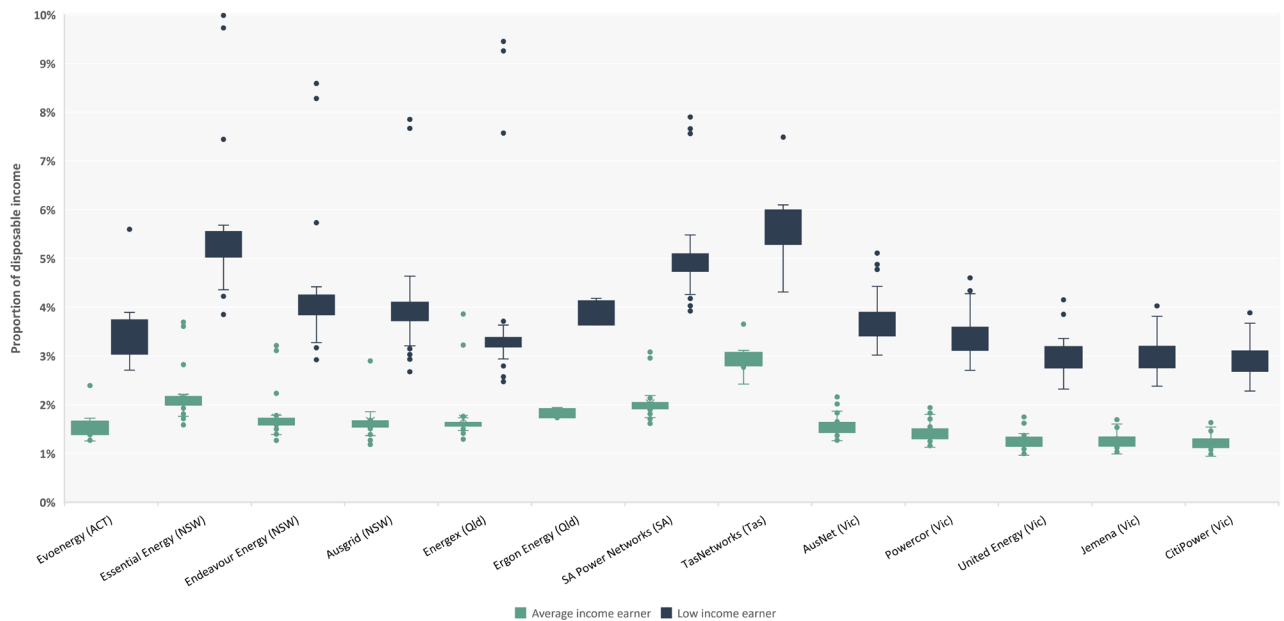
⁴⁹ AER, [Better Bills guideline – Version 2 - Implementation](#), AER Website, accessed 31 October 2022.

Figure 2.15 Electricity bills for low-income households on a median market and standing offer

Note: Based on offers for residential customers in each jurisdiction. Average household consumption for the year ending June of each period was used in annual bill calculations. Per cent of income figures refer to mean disposable income of all and low-income households, respectively.

Source: Offer data from Energy Made Easy and Victorian Energy Compare. Consumption estimates based on Economic Benchmarking RINs. Income data are unpublished ABS estimates of household disposable income.

The spread of market offers has widened in most distribution networks. In some instances, a low-income household on the highest offers would have paid up to 10% of their disposable income for electricity. Figure 2.16 highlights that there are few offers that are priced at the higher end. The boxes in the chart shows the interquartile range where 50% of offers reside closer to the median, while most of the remaining offers are observed within the upper and lower quartile (within the whiskers or vertical lines). However, there are several outlying offers that are significantly above the median offers in many networks because of market volatility that occurred in early 2022. It is concerning that retail customers, especially low-income householders on these offers would spend a high proportion of their disposal income on electricity.

Figure 2.16 Electricity bills as a percentage of disposable income for low and average-income households

Note: Based on offers for residential customers in each jurisdiction. Average household consumption for the year ending June of each period was used in annual bill calculations. Per cent of income figures refer to mean disposable income of all and low-income households, respectively.

Source: Offer data from Energy Made Easy and Victorian Energy Compare. Consumption estimates based on Economic Benchmarking RINs. Income data are unpublished ABS estimates of household disposable income.

2.4.3 Customers experiencing payment difficulties and financial hardship used more electricity than general customer groups

The ACCC found that customers facing financial hardship and payment difficulties consume a greater quantity of electricity than other customers in the market generally including those on concession arrangements. It has been calculated that customers on hardship programs use up to 81% more electricity than customers meeting their electricity bills, whereas customers on concessions tend to consume less, as low as 15% less electricity based on their network location.⁵⁰

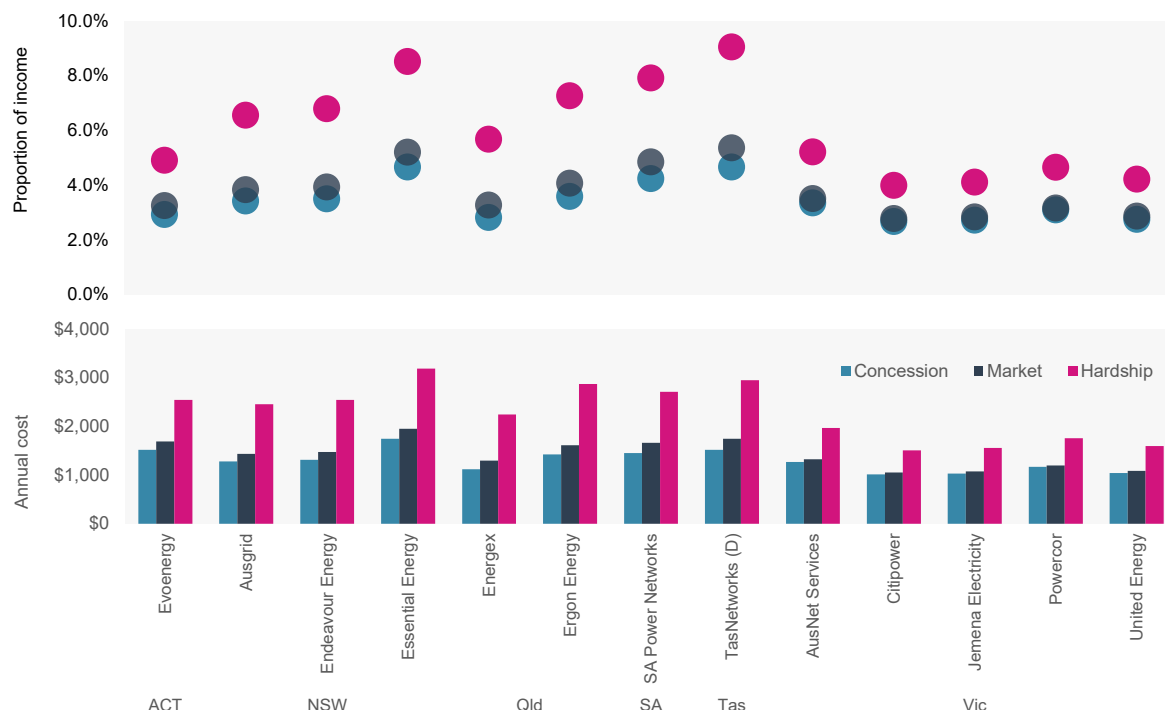
Figure 2.17 shows median market electricity bills based on the different representative consumption amounts among all customers, customers on hardship programs, and customers on concession arrangements.⁵¹ The annual cost of those facing hardship is significantly higher across all distribution networks due to higher usage. For example, in Essential Energy, NSW, a household on a hardship program may pay \$1,240 more annually than customers with average usage. That equates to an extra 3.3% of low-income household's disposable income that is needed to meet annual electricity costs.

⁵⁰ Comparison of median usage among customers on hardship, customers with concession arrangements, and median usage among all customers from the ACCC, [Inquiry into the National Electricity Market - May 2022 report](#), ACCC, 2022.

⁵¹ Typical usage amounts for hardship and concession customers are estimated by multiplying the average residential consumption amounts provided by DNSPs by the percentage difference in the median hardship and concession energy consumption amounts relative to all customers from the ACCC, [Inquiry into the National Electricity Market - May 2022 report](#), ACCC, 2022. Appendix Table A2.5 sets out these calculations.

In comparison, customers with concessions arrangements typically pay less for their electricity ranging from around \$40 in Victoria to over \$200 in South Australia and Tasmania.

Figure 2.17 Electricity bills for customers in hardship programs and/or with concession arrangements



Note: Based on offers for residential customers in each jurisdiction. Consumption estimated for Households on hardship program, concession and general market offers for the year ending June of each period was used in annual bill calculations. Per cent of income figures refer to mean disposable income of all and low-income households, respectively. Source: Offer data from Energy Made Easy and Victorian Energy Compare. Consumption estimates based on Economic Benchmarking RINs. Income data are unpublished ABS estimates of household disposable income.

Gas affordability

Gas affordability declined in Victoria and remained neutral for households on market offers across most other jurisdictions between 2020–21 and 2021–22. Households across ACT, NSW, and Queensland (Allgas Energy network) experienced median bill increases of 2% to 4%, Victorian gas customers median bill increased by around 10% and AGN Queensland showed a 20% rise in median bills from the previous year.

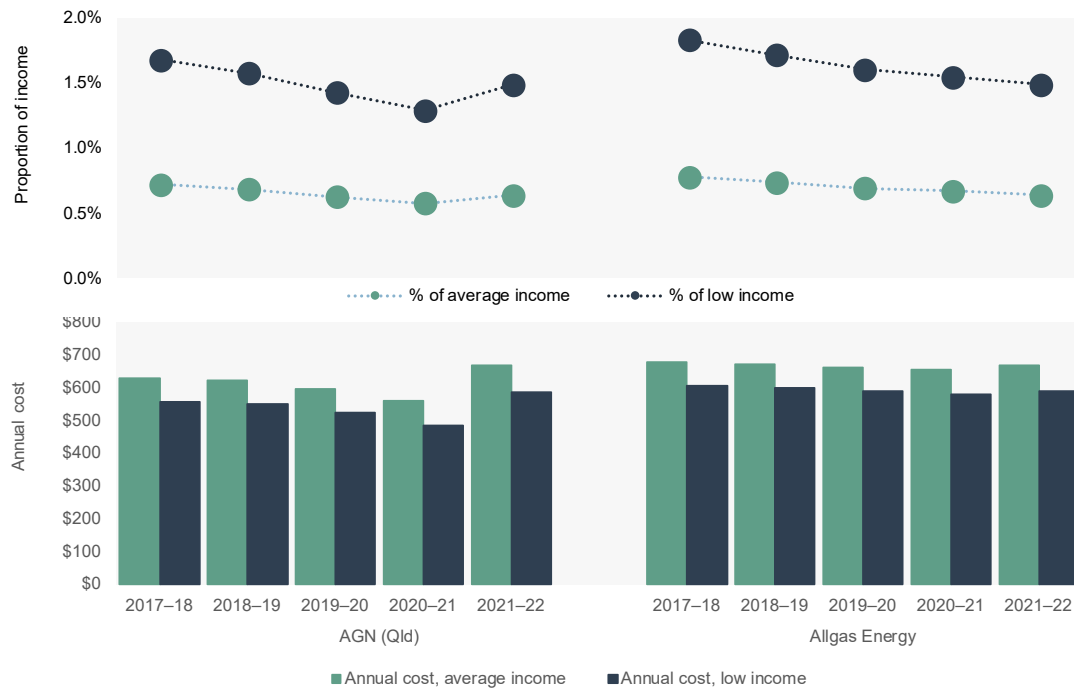
Following a broad increase in gas bills from 2016–17 to 2017–18, the proportion of household disposable income paid on household expenditure on gas has remained reasonably consistent in most jurisdictions.

Victorian households paid the highest proportion of their disposable income on gas bills. This is largely because households in Victoria used more gas than other jurisdictions. For ACT households, large annual gas costs were partly offset by higher average incomes. On average, Queensland households use the least gas at 7,238 MJ per year and spend the least on their gas bills despite gas prices being the highest when assessed on a per unit basis.

Figure 2.18, Figure 2.19 and Figure 2.20 show market and standing offer gas bills for low-income and average-income households from 2017–18 to 2021–22. The percentage of

disposable household income spent on electricity by households is also shown. Low-income households on the median market offer in each region paid more than twice the proportion of their disposable income for gas compared with average-income households. In 2021–22 low-income households on the median market offer spent between 1.5% (in Queensland's AGN gas distribution network) and 3.5% (Multinet Gas in Victoria) of disposable income on gas. By comparison, average-income households spent between 0.6% and 1.3% of disposable income on their gas bills.

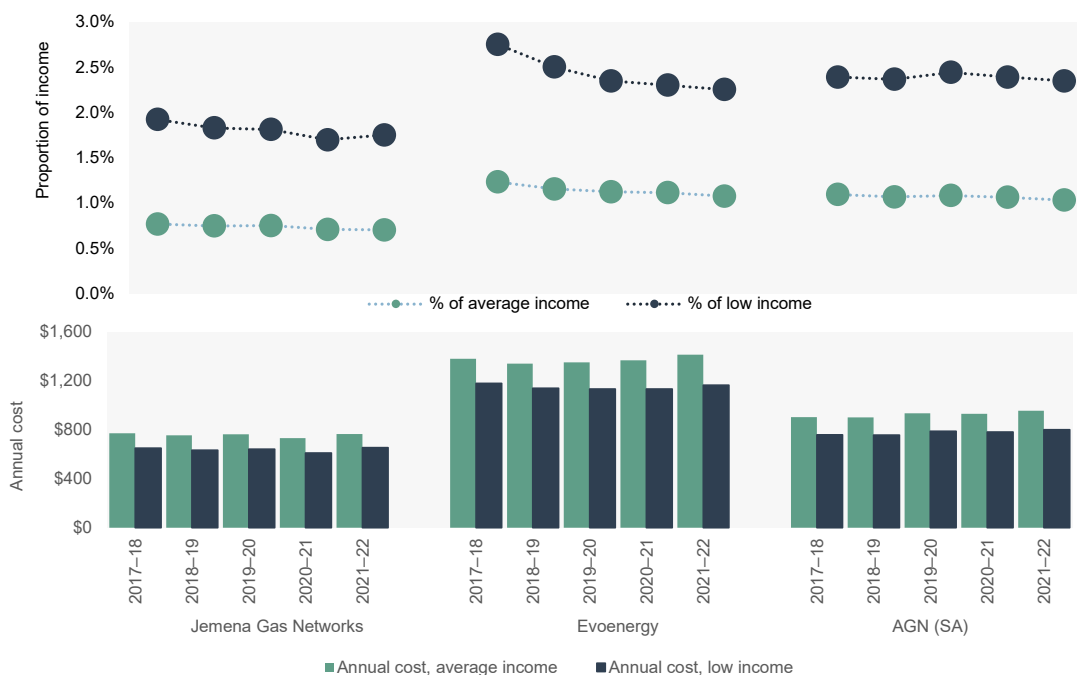
Figure 2.18 Gas bills for low-income and average-income households – Queensland



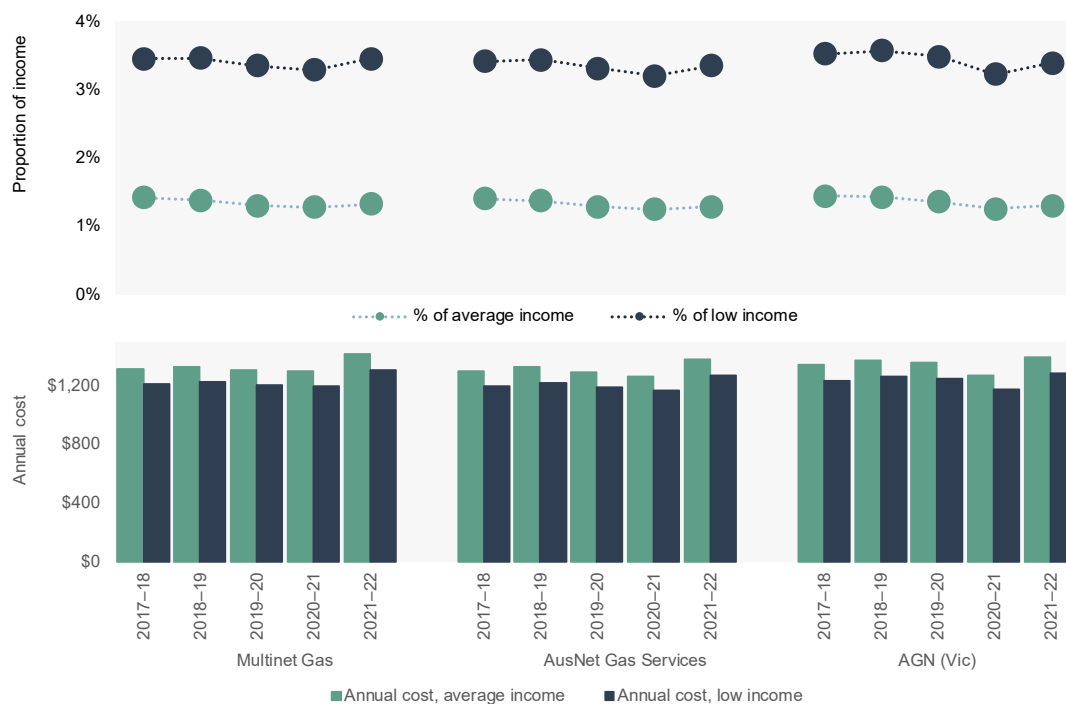
Note: Based on single rate offers for residential customers and average consumption in Queensland gas distribution network. Using mean disposable income for all and low-income households by state or territory.

Source: Offer data from Energy Made Easy. Income data are unpublished ABS estimates of household disposable income.

Consumption based on [Frontier Economics, Report to the AER - Residential energy consumption benchmarks](#).

Figure 2.19 Gas bills for low-income and average-income households – ACT, NSW, and South Australia

Note: Based on single rate offers for residential customers and average consumption for the ACT, NSW, and South Australia gas distribution network. Using mean disposable income for all and low-income households by state or territory. Source: Offer data from Energy Made Easy. Income data are unpublished ABS estimates of household disposable income. Consumption based on [Frontier Economics, Report to the AER - Residential energy consumption benchmarks](#).

Figure 2.20 Gas bills for low-income and average-income households – Victoria

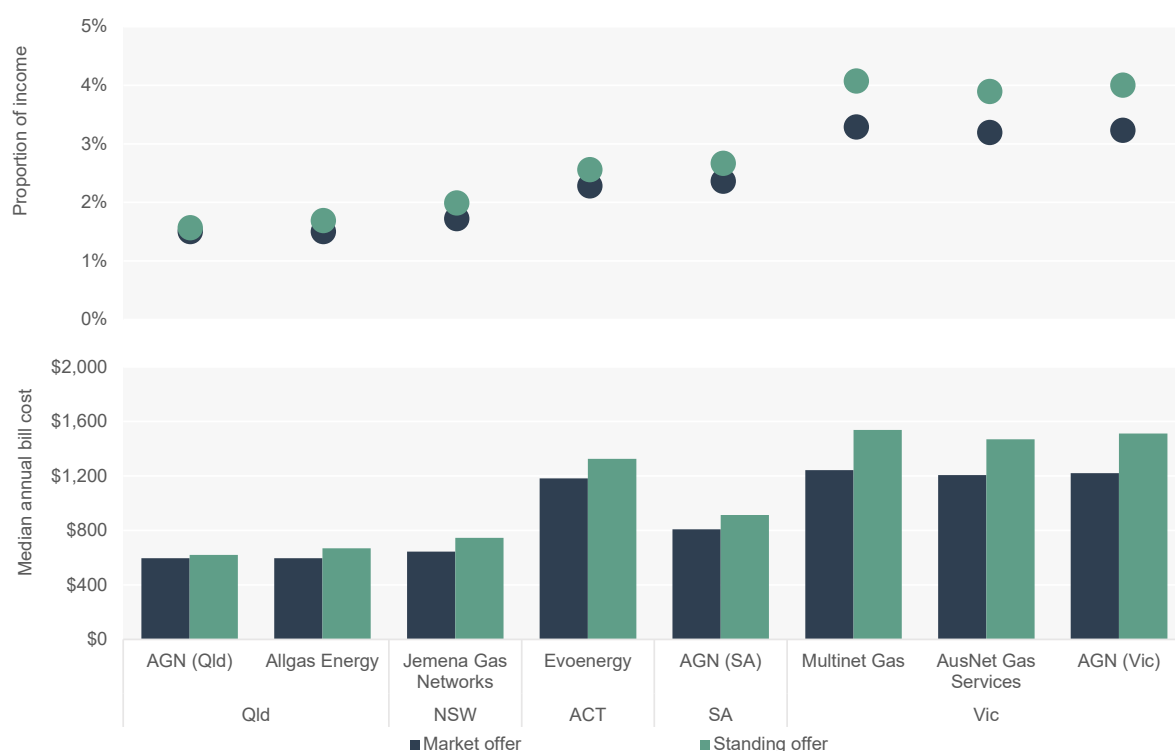
Note: Based on single rate offers for residential customers and average consumption in each Victorian gas distribution network. Using mean disposable income for all and low-income households by state or territory. Source: Offer data from Energy Made Easy and Victorian Energy Compare. Income data are unpublished ABS estimates of household disposable income. Consumption based on [Frontier Economics, Report to the AER - Residential energy consumption benchmarks](#).

Range of gas costs and affordability for low-income households

Gas standing offers remained higher than gas market offers across all jurisdictions. Figure 2.21 shows median annual bill costs for market and standing offers as an annual dollar figure and a proportion of disposable income in 2021–22.

The difference in bills between jurisdictions is largely driven by usage. Although Victorian customers pay the cheapest gas prices on a cents per MJ basis, a higher average usage results in their bills being the least affordable (as discussed in 2.2.2).

Figure 2.21 Gas bills for low-income households on a median market and standing offer



Note: Based on offers for residential customers and average consumption in each jurisdiction. Using mean low-income by state or territory.

Source: Offer data from Energy Made Easy and Victorian Energy Compare. Income data are unpublished ABS estimates of household disposable income. Consumption based on [Frontier Economics, Report to the AER - Residential energy consumption benchmarks](#).

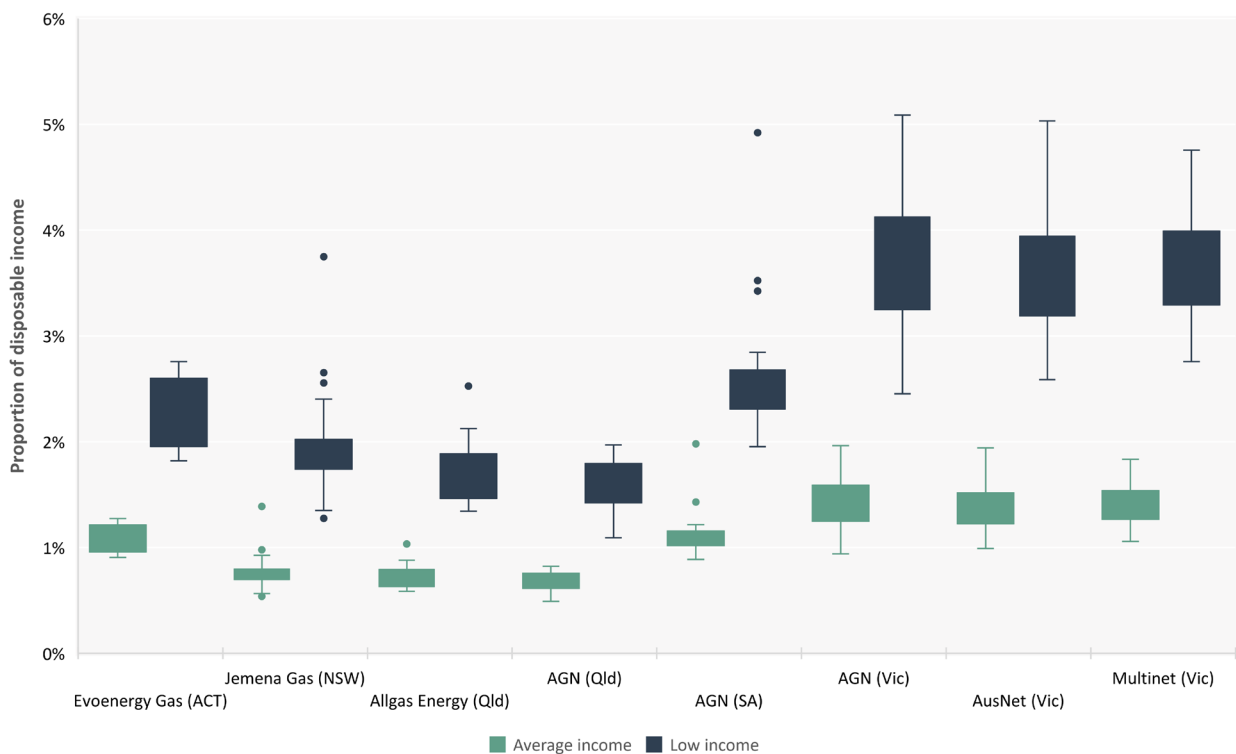
In switching from the median standing offer to the median market offer, low-income households could save between 0.1% and 1% of their disposable income, depending on their gas distribution network. For NSW households, by moving from the median standing offer to the median market offer would save \$100.

Victorian households can make savings by switching to a new offer. In moving from the median standing offer to the median market offer, Victorians can save up to 0.3% of their disposable income. For low-income customers in the Multinet, AGN (Victoria and Albury) and AusNet Gas Services gas distribution networks, this is a saving of around \$260 to \$300 per year based on average gas usage. For those already on market offers, low-income customers in Victoria could save \$250 to \$360 on their annual bill by switching from the median to lowest market offer.

In the Evoenergy ACT gas distribution network, where gas usage is also high, every market offer is either cheaper than or equal to the lowest standing offer. Low-income households stand to save \$366 by switching from the median standing offer to the lowest available market offer. The lowest market offer was around \$17 below the median market offer.

In contrast to electricity, the range of gas offers as a proportion of disposable income for average and low-income households remains consistent since last year. However, several retailers have priced offers at the higher end in 2021–22. While most offers are closer to the median price, some low-income households may have paid over 5% of their disposable income on gas if they were on these offers in 2021–22 (Figure 2.22).

Figure 2.22 Gas bills as a proportion of disposable income for average and low-income households



Note: Based on offers for residential customers and average consumption in each jurisdiction.

Source: Offer data from Energy Made Easy and Victorian Energy Compare. Income data are unpublished ABS estimates of household disposable income. Consumption based on [Frontier Economics, Report to the AER - Residential energy consumption benchmarks](#).

3 Payment difficulties and hardship

Key findings

Energy debt (excludes customers on hardship)

- In 2021–22 the number of customers with debt over \$2,500 and more than 24 months old increased by 39%.
- In 2021–22 the proportion of customers in residential energy debt decreased from the previous year in every jurisdiction except Tasmania.
- The average debt of residential customers has varied across jurisdictions over the past year. Overall debt has remained fairly stable in 2021–22.
- In 2021–22 the overall average debt of small business customers remained steady. However, the change in the average debt of small business customers varied greatly across jurisdictions.

Payment plans

- Overall, the proportion of residential electricity customers being placed on payment plans has remained fairly stable over the last financial year.
- Tasmanian customers were the most likely to be on electricity payment plans in 2021–22 and Queensland customers were the most likely to be on gas payment plans.
- The proportion of electricity customers with payment plans cancelled, primarily due to being unable to meet the terms of the payment plan, increased across all jurisdictions in 2021–22.

Hardship programs

- The number of residential customers who are accruing debt for longer before entering a hardship program has increased and customers entered hardship programs with higher levels of debt in 2021–22.
- Average debt of hardship customers increased and almost half of all customers on hardship programs are not meeting their ongoing energy usage costs, suggesting customers are accumulating more debt while on a hardship program.
- The number of residential customers on hardship programs dropped at the start of the COVID-19 pandemic because many customers deferred payment of their bill rather than pursuing formal payment assistance.
- Similar to payment plans, South Australia and Tasmania have the highest proportion of electricity hardship customers and South Australia has the highest proportion of gas hardship customers.
- Most residential customers exiting a hardship program are being removed for non-payment.

Concessions

- The proportion of customers receiving concessions remained relatively stable over the past 5 years across all jurisdictions. The proportion of electricity customers receiving a concession was highest in Tasmania and the proportion of gas customers receiving a concession was highest in Queensland.

Disconnections

- In 2021–22 disconnections increased above the level in 2020–21 as retailers recommenced previous debt management practices. However, disconnections have not returned to pre-COVID-19 pandemic levels.
- Where disconnection did occur, customer debt levels at the time of disconnection were higher in 2021–22 than in 2020–21.

Credit collection

- Since COVID-19 pandemic restrictions have been lifted, the proportion of customers referred to credit collection agencies in 2021–22 has varied across jurisdictions but overall remains below pre-COVID-19 pandemic levels.
- Credit defaults increased during 2021–22 but not to pre-COVID-19 pandemic levels.

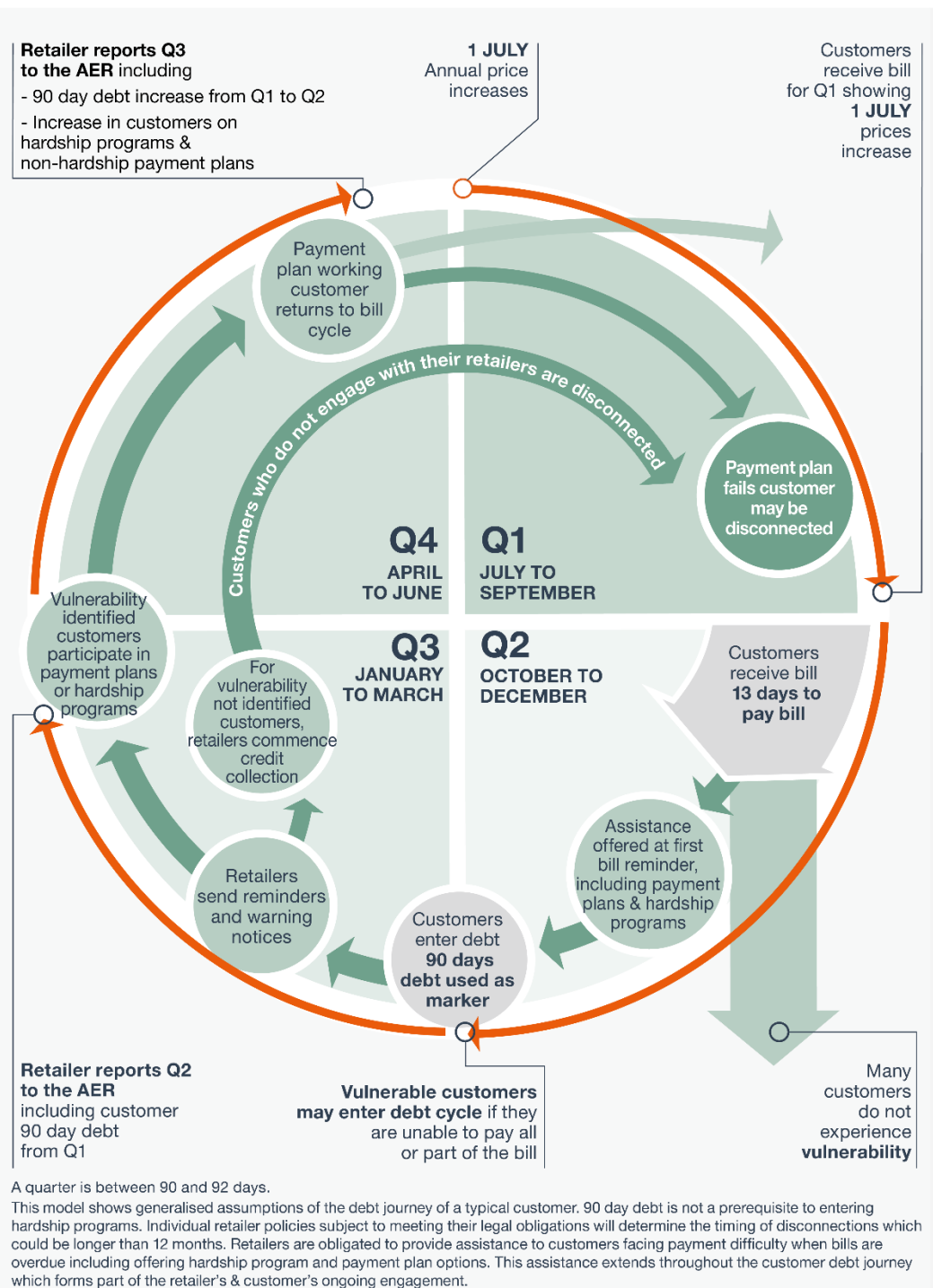
In this section, we describe the aspects of a customer's experience of payment difficulties using data reported by retailers. To illustrate how customers experiencing payment difficulties are being supported and the outcomes for these customers, we explore:

- debt levels
- payment plans
- hardship programs
- concessions
- disconnections
- credit collection.

Payment difficulties and hardship are challenging and complex experiences. There is no single way that customers are affected and there is no single solution to resolve affordability issues. Governments support customers through concessions, policies, and regulations, while retailers use their customer hardship policy to identify residential customers experiencing payment difficulties due to hardship and to assist those customers to better manage their energy bills on an ongoing basis.

The customer vulnerability cycle is unique and not all customers will experience payment difficulties. The journey for those customers, the support offered, and customer outcomes are illustrated in the diagram below, noting the timing and outcomes vary for each customer.

Debt journey



The *National Energy Retail Law* and *National Energy Retail Rules* lay down a framework of the types of assistance retailers must provide to customers facing payment difficulties. The [AER's Customer Hardship Policy Guideline](#) details the expectations around retailer policies and practices.

Despite the framework and policies in place, energy debt levels are rising. Many indebted customers are not receiving enough support through payment plans or hardship programs. Even customers on hardship programs are often unable to meet their usage costs. The AER's *SoE* temporarily helped protect many customers from disconnection or credit collection activity during the COVID-19 pandemic, but a long-term strategy is needed.

Changes in the ability of customers to meet repayments for energy can be caused by a number of different factors. While some may stem from the energy market or energy products, at other times it can be a result of a change in personal circumstances such as reduced income or job loss.

We expect that higher wholesale energy prices will increase customer debt in the immediate future. This customer debt will be exacerbated by customers dealing with other cost-of-living pressures. The first objective in the AER's [Strategic Plan 2020–2025](#) commits to protecting consumers experiencing vulnerability while enabling consumers to participate in energy markets. In October this year, the AER published [Towards energy equity – a strategy for an inclusive energy market](#)⁵². The strategy included among other things, a focus on improving identification of consumers experiencing vulnerability and strengthening protections for consumers experiencing payment difficulty.

Key terminology – payment difficulties and hardship

Terminology about payment difficulties and hardship can be confusing. We explain the key terminology here to help understand this section.

Energy debt (non-hardship customers)

This term refers to those customers in debt but not on hardship programs. These customers may be experiencing difficulties that have resulted in them not meeting their bill repayments. Energy debt only includes electricity and gas charges that are outstanding for more than 90 days.

Payment plans

Payment plans are intended to provide a framework for customers to repay their energy debt in affordable, regular instalments. Retailers must provide residential customers with the option to join a payment plan⁵³ if a customer informs them they are experiencing payment difficulties or if the retailer considers the customer is experiencing payment difficulties. This obligation applies to all residential customers, not only those on formal hardship programs.

⁵² AER, [Towards energy equity – a strategy for an inclusive energy market](#), AER, 2022.

⁵³ [National Energy Retail Law](#), Division 7, Section 50—Payment plans.

Payment plans are among the minimum forms of assistance that retailers must offer customers on hardship programs.

Payment plans cancelled

This refers to a situation where a customer's arrangement is terminated by the retailer due to noncompliance with the plan by the customer. The most common reason for cancellation is non-payment by the customer.

Hardship programs

The purpose of a retailer's customer hardship policy is to identify residential customers experiencing payment difficulties due to hardship and to assist those customers to better manage their energy bills on an ongoing basis. This includes flexible payment options such as payment plans, other programs to assist the customer (for example, energy efficiency audits) and processes to identify other forms of financial assistance the customer may be eligible for. Retailers must consider the customer's ability to pay, current arrears and expected consumption over the next year. All retailers are required to publish a hardship policy approved by the AER according to our [Customer Hardship Policy Guideline](#). The *National Energy Retail Law* and *National Energy Retail Rules* set down minimum assistance that retailers must provide to customers on hardship programs.⁵⁴

Concessions

State and territory governments provide a range of concessions that eligible consumers can use towards their energy bills. We only report on customers with concessions that are administered by the consumer's retailer. Concessions target specific groups such as those in financial difficulty or with specific medical requirements.

Disconnection

Disconnection means that the retailer ceases to supply the customer's premises with energy. Given the serious consequences this can have, the *National Energy Retail Law* and *National Energy Retail Rules* set down strict processes that retailers must follow before disconnection. A retailer must view disconnection for non-payment as a last resort.

Credit collection

Residential customers who have overdue debt may be referred by their retailer to an external credit collection agency, for the purposes of debt recovery.

A credit default refers to a negative listing on a consumer's credit file and is commonly referred to as an overdue debt. We report on residential electricity and gas customers who have had a credit default applied against their name for debt associated with the retailer. A credit default may be applied by an external credit collection agency or by the customer's retailer if the retailer recovers overdue debt through internal credit collection processes.

A credit reversal is when a credit default listing is reversed for the debt associated with the retailer.

⁵⁴ [National Energy Retail Law](#), Division 6, Section 43–44.

3.1 Debt levels

The proportion of customers in energy debt, and the average level of debt, provide an insight into the extent to which customers are experiencing difficulty paying their energy bills and how effectively retailers are assisting their customers to meet their energy debt repayments.

Our [Performance Reporting Procedures and Guidelines](#) define energy debt as electricity and gas charges that are outstanding for more than 90 days. The number of customers repaying debt excludes customers on hardship programs and non-active debts that retailers may still have on record.

Many customers experienced the adverse financial effects of the COVID-19 pandemic during 2020 and early 2021 but the debt data in this section captures some of the effects of this period because:

- energy arrears are only classified as in debt after 90 days
- retailers typically administer billing in 3-monthly cycles.

3.1.1 Less residential customers in energy debt, average debt steady

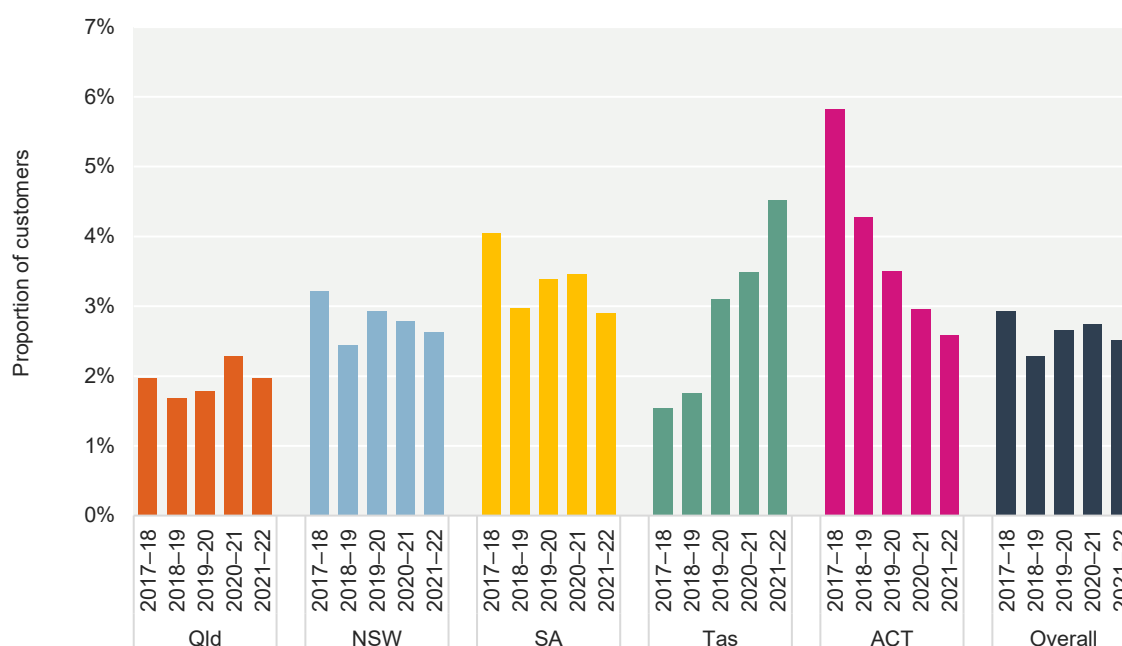
In 2021–22 the proportion of customers in residential energy debt decreased from the previous year in every jurisdiction except Tasmania (Figure 3.1).

South Australia reported the most substantial decrease in residential customers in debt from 2020–21 to 2021–22, which was largely Origin Energy customers. The proportion of residential debt also decreased in Queensland, again largely due to Origin Energy customers. Ergon Energy also had a decrease in 2021–22 after increasing in 2020–21 due to a long pause on their disconnection notices during the COVID-19 pandemic. These customers may have accumulated more debt because disconnection notices, which may act as a catalyst for customers to contact their retailer for payment assistance, were not distributed for a substantial period.

Tasmania's proportion of customers in residential energy debt has continued to increase each year, growing from 1.5% in 2017–18 to 4.5% in 2021–22.

In 2021–22 the number of ACT residential customers in debt continued to drop from 5.8% in 2017–18 to 2.6% in 2021–22 due to primary regional retailer ActewAGL having fewer customers in debt. NSW also reported a drop in customers in residential debt from 2020–21 to 2021–22, again driven by Origin Energy customers offsetting increases from other retailers.

Overall residential customer debt levels are compared with levels of customers in hardship debt in section 3.3.2, subsection 'Higher average debt levels for hardship program customers.

Figure 3.1 Residential customers in energy debt by state/jurisdiction

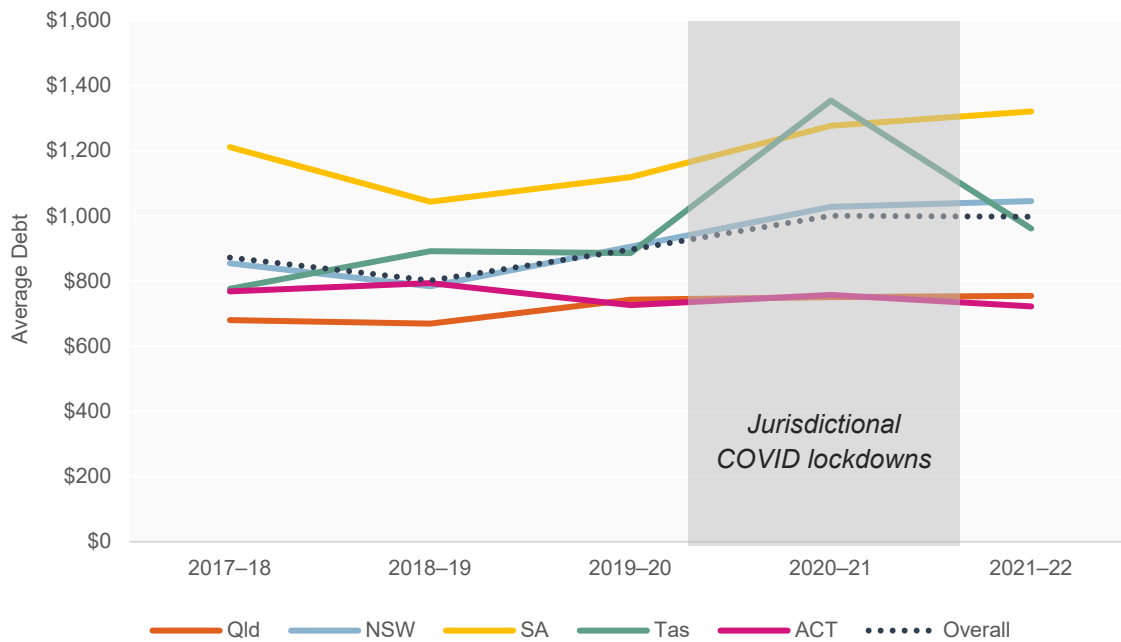
Note: Excludes debt of customers on hardship programs. Data as at 30 June each year.
Source: AER.

The average debt of residential customers has varied across jurisdictions over the past year (Figure 3.2). Overall debt remained fairly stable in 2021–22.

South Australia has returned to being the jurisdiction with the largest average debt, with average debt in Q4 2021–22 \$323 above the overall average. Tasmania had a substantial decrease in average debt in 2021–22, which brought it back under the overall average (after having the highest debt in 2020–21).

NSW and Queensland both had a minor increase in average debt in 2021–22, whereas the ACT had a minor decrease.

The ACT and Queensland continue to have the lowest average debt of residential customers, approximately \$550 less than South Australia. This reflects the ACT having relatively affordable electricity due to its higher incomes in both typical and low-income households.

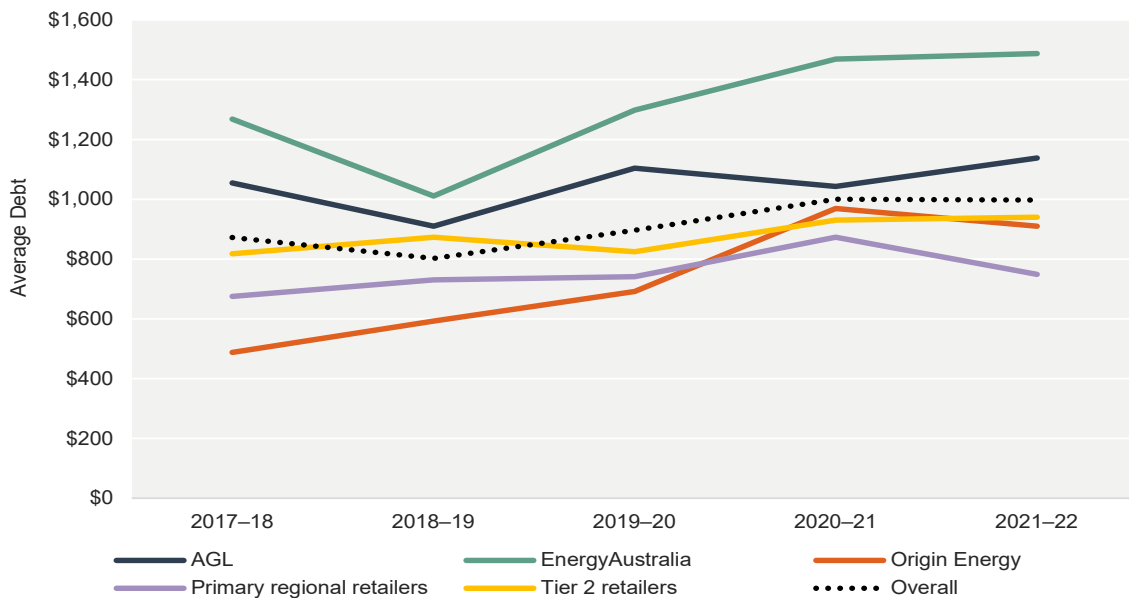
Figure 3.2 Average debt of residential customers by state/jurisdiction

Note: Excludes debt of customers on hardship programs.
Source: AER.

Average residential customer debt has varied across retailer groupings in 2021–22, after increasing across all retailer groups in 2020–21 (Figure 3.3). AGL, EnergyAustralia and Tier 2 retailers all had increases in average debt in 2021–22 whereas Origin Energy and the primary regional retailers had decreases.

There was a marked difference in the average debt of residential customers between the retailer groupings. EnergyAustralia customers maintained the highest average debt throughout 2021–22, approximately \$500 above the overall average. AGL customers had the second highest average debt in 2021–22, at approximately \$100 above the overall average. Origin Energy and the Tier 2 retailers had debt levels just below the overall average.

Primary regional retailers' customers had the lowest average debt of residential customers again this year and also had the largest decrease of \$124 in 2021–22. Aurora Energy drove this decrease; it had a large drop in average residential debt, back to pre-COVID-19 pandemic levels, after a large increase in 2020–21. Ergon Energy and ActewAGL remained relatively steady.

Figure 3.3 Average debt of residential customers by retailer

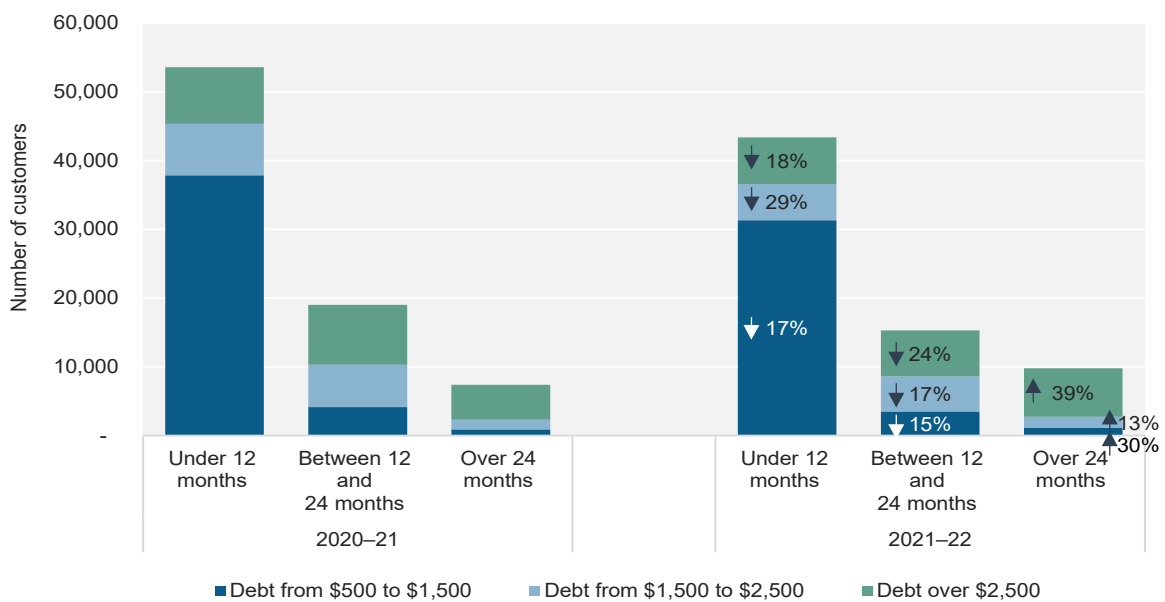
Note: Excludes debt of customers on hardship programs.

Source: AER.

In 2020–21 and 2021–22 most customers in debt had held their debt for less than 12 months, with debt values of \$1,500 or less (Figure 3.4).

Concerningly, in 2021–22 the number of customers with debt over \$2,500 and more than 24 months old increased by 39%.

Most customers in debt for more than 24 months had debt over \$2,500. This may imply that once debt gets older, it is more likely to become entrenched and difficult to repay or that large, difficult to repay debts tend to persist and accumulate over time.

Figure 3.4 Customers in debt – Debt amount and debt age

Note: Excludes debt of customers on hardship programs. Data as at 30 June each year.

Source: AER.

3.1.2 Average small business energy debt remains steady

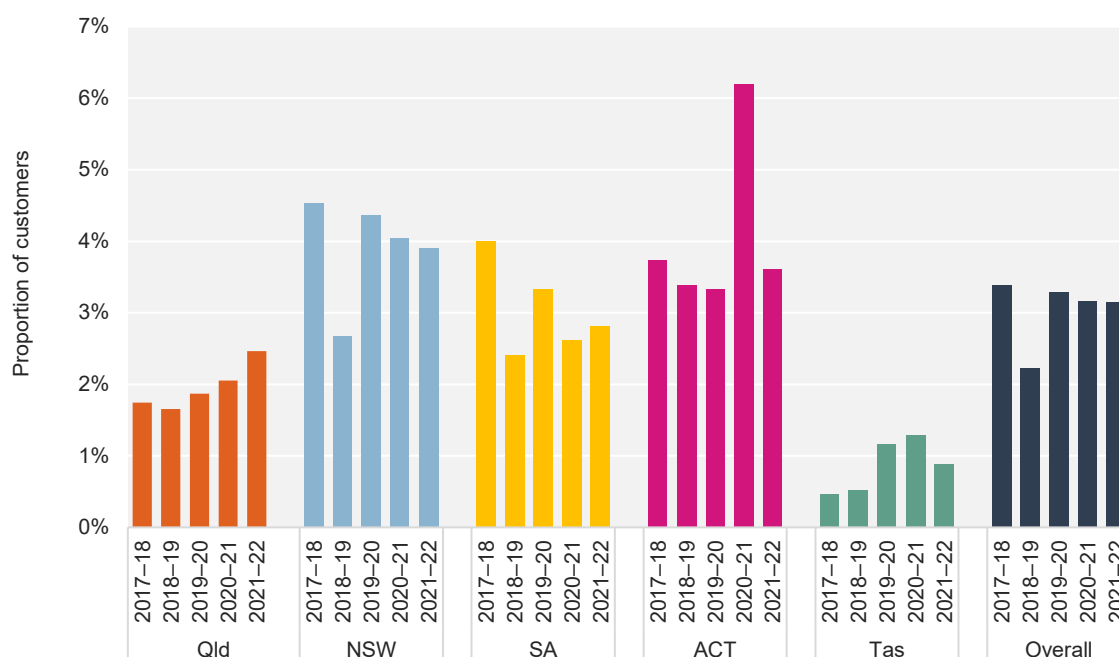
The overall proportion of small business customers in debt remained steady in 2021–22 (Figure 3.5). This followed a slight decrease in 2020–21, after significant increases in 2019–20 due to the effects of the COVID-19 pandemic lockdowns across different jurisdictions. However, the proportion of small business customers with debt was extremely low in 2018–19, primarily driven by NSW and South Australia.

The overall proportion of small business customers in debt remained steady in 2021–22, but at a jurisdictional level the results varied. NSW, the ACT and Tasmania's proportion of small business customers in debt declined; in contrast, South Australia and Queensland experienced an increase.

NSW had the highest proportion of small business customers in debt in 2021–22. The ACT had a large decrease in small business customers in debt in 2021–22, falling from 6.2% to 3.6%. This resulted in the ACT no longer having the highest proportion of all the jurisdictions and bringing it much closer to the overall average of 3.2%. This decrease was driven by Origin Energy returning to debt levels similar to 2019–20.

Queensland had the largest increase of small business customers in debt compared with 2020–21. This was primarily due to customers of Origin Energy.

Figure 3.5 Small business customers in debt by state/jurisdiction



Note: Excludes debt of customers on hardship programs. Data as at 30 June each year.
Source: AER.

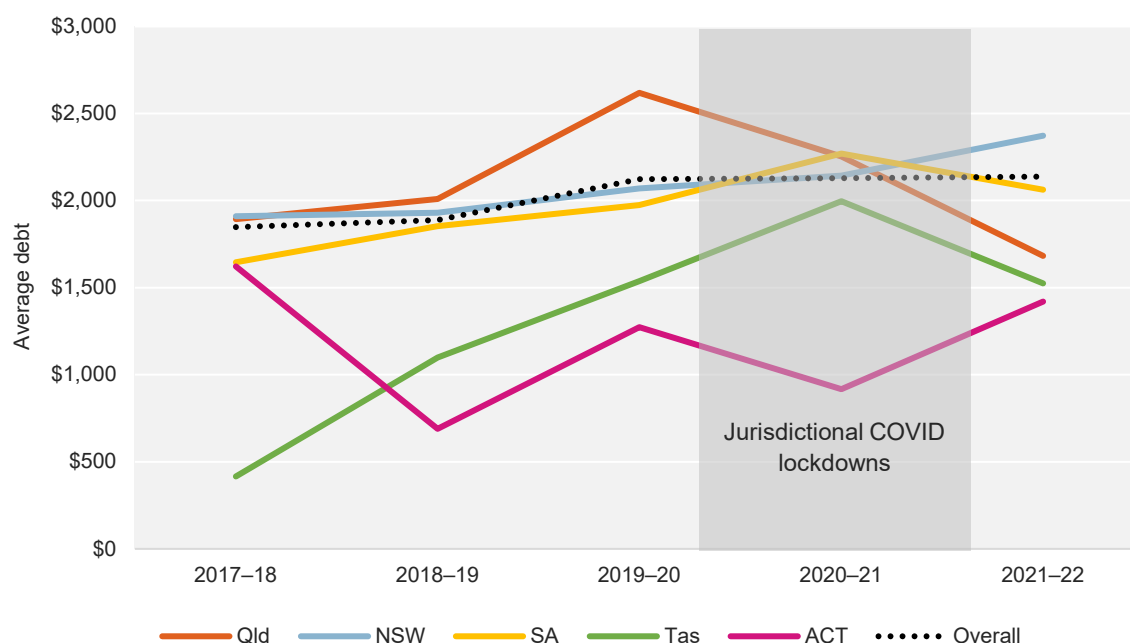
In 2021–22 the overall average debt of small business customers remained steady (Figure 3.6). However, the change in the average debt of small business customers varied greatly across jurisdictions.

NSW had the highest small business average debt in 2021–22 after it increased by \$228. NSW was the only jurisdiction to have higher debt than the overall average, by approximately

\$230. The ACT also had a large increase in the average small business debt by \$503, but it was still well below the overall average.

Queensland, South Australia, and Tasmania all had large decreases in average small business debt. The ACT was the jurisdiction with the lowest debt, at approximately \$600 below the overall average.

Figure 3.6 Average debt of small business customers by state/jurisdiction



Note: Excludes debt of customers on hardship programs. Data as at 30 June each year.
Source: AER.

3.2 Payment plans

Retailers must offer a payment plan to a residential customer if the customer informs the retailer that they are experiencing payment difficulties or if the retailer otherwise believes the customer is experiencing payment difficulties. Payment plans are intended to allow customers to repay their energy debt in affordable, regular instalments.

Many retailers have signed up to the AER's voluntary [Sustainable Payment Plans Framework](#),⁵⁵ which came into effect in July 2016. It aims to help customers and retailers agree to affordable and sustainable payment plans. It outlines good practice principles of flexibility, consistency, empathy, and respect to guide retailers' behaviour when setting up payment plans with residential customers.

At the start of the COVID-19 pandemic, the AER's *SoE* provided for retailers that had residential or small business customers who indicated they may be in financial stress to offer

⁵⁵ See more information on the [Sustainable Payment Plan Framework](#).

a payment plan⁵⁶ as an option to manage repayments regardless of whether the customer met the ‘usual’ criteria for that assistance.

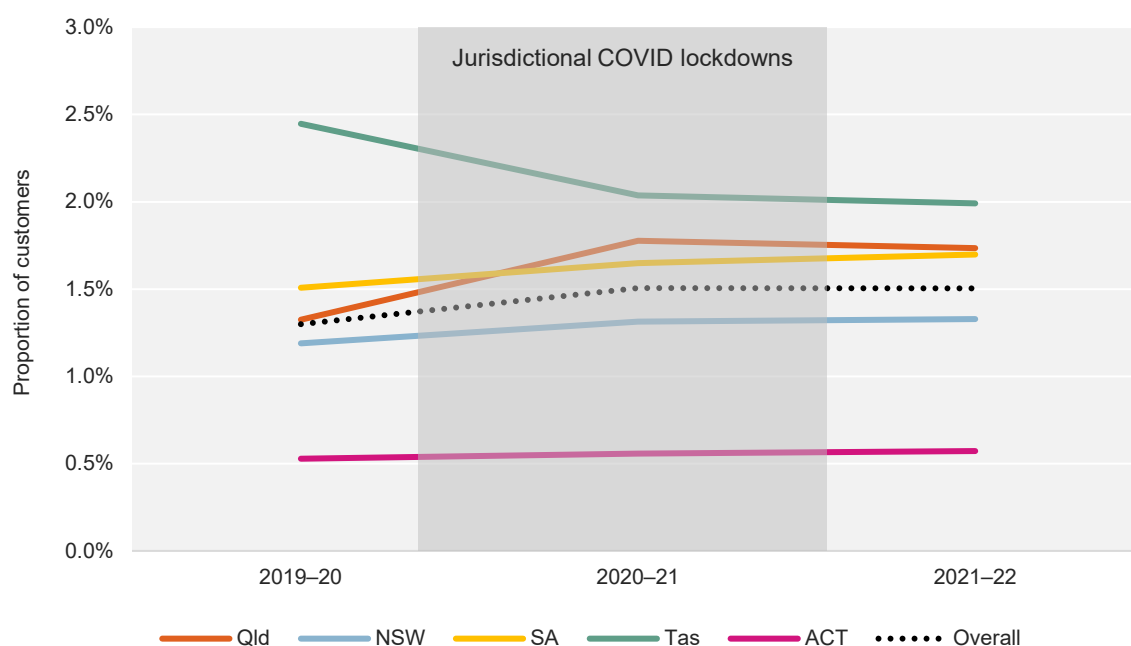
Payment plans decreased across all relevant jurisdictions at the start of the COVID-19 pandemic (Q4 2019–20). This aligns with when many retailers began offering customers alternative debt management arrangements that were easily accessible and simpler than a formal payment plan. This contributed to a decrease in the number of customers on formal payment plans, despite an increase in the number of customers receiving some form of assistance from their retailer.

Overall, the proportion of residential electricity customers being placed on payment plans has remained fairly stable over the last financial year at around 1.5% (Figure 3.7). Across all jurisdictions, there has been movement across the quarters but the proportion of residential electricity customers on payment plans has remained similar from 2020–21 to 2021–22.

In NSW, the ACT and South Australia it remained relatively flat across 2021–22 and just below pre-COVID-19 pandemic levels last seen in Q3 2019–20. Customers in the ACT were the least likely to be on payment plans in 2021–22, which reflects relatively high incomes in the ACT.

Despite the large decrease in electricity customers on payment plans in Tasmania in 2020–21, Tasmanian customers were still the most likely to be on payment plans. In 2021–22 there was an increase in payment plans in Q1 to Q3 but returned to Q4 2020–21 levels in Q4.

Figure 3.7 Residential electricity customers on payment plans by state/jurisdiction



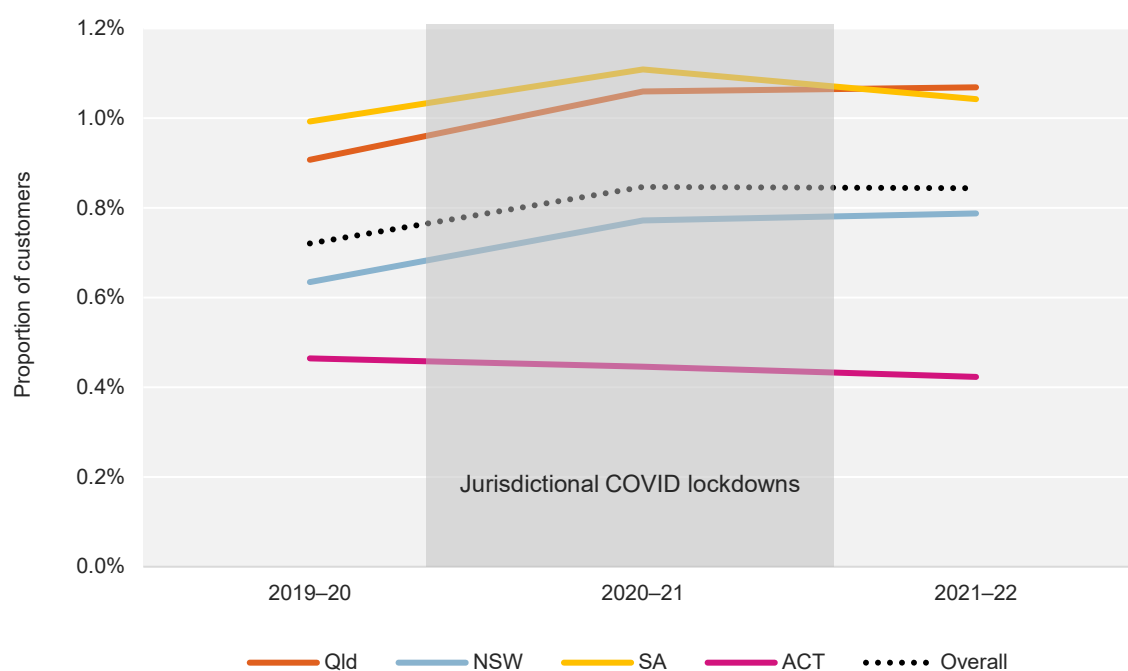
Note: Data for previous years is unavailable for this indicator.
Source: AER.

⁵⁶ Hardship programs were also included in the SoE to assist customers with payment difficulties.

Similar to previous years, gas customers were less likely to be on payment plans than electricity customers. This reflects that electricity bills typically make up a higher proportion of a customer's expenditure and gas is also mainly used as a secondary fuel source rather than being essential.

The proportion of gas customers on payment plans remained steady in 2021–22 across all jurisdictions (Figure 3.8). Similar to electricity, gas customers in the ACT were the least likely to be on payment plans. In 2021–22 gas customers in Queensland were the most likely to be on payment plans, edging just ahead of South Australia.

Figure 3.8 Residential gas customers on payment plans by state/jurisdiction

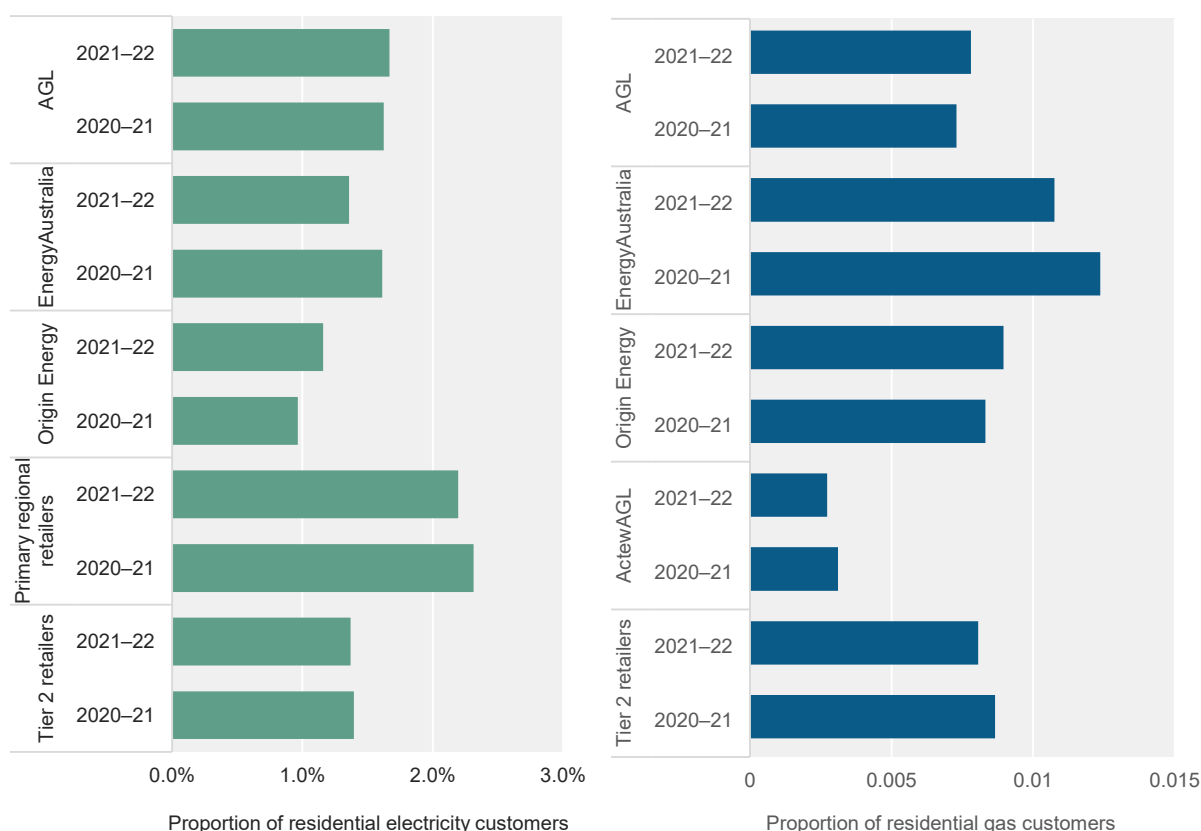


Note: Data for previous years is unavailable for this indicator.

Source: AER.

Electricity customers of primary regional retailers were the most likely to be on payment plans in 2021–22 and Origin Energy customers were the least likely (Figure 3.9). There was an increase in electricity customers on payment plans in 2021–22 for Origin Energy and AGL customers, whereas there was a decrease for EnergyAustralia and customers of primary regional retailers. Aurora Energy and Ergon Energy drove this decrease for the primary regional retailers. Tier 2 retailers' electricity customers on payment plans held steady in 2021–22.

Similar to 2020–21, EnergyAustralia gas customers were the most likely to be on payment plans and ActewAGL customers were the least likely. The proportion of gas customers on payment plans decreased for EnergyAustralia and customers of Tier 2 retailers but there was an increase for Origin Energy and AGL customers. Payment plans for ActewAGL customers remained low and stable.

Figure 3.9 Residential electricity and gas customers on payment plans by retailer

Source: AER.

Proportion of cancelled electricity payment plans increasing

A retailer may cancel a payment plan if the customer fails to comply with the terms of their payment agreement. If a customer makes all instalments and payments in line with their agreement, they are considered to have successfully completed their payment plan.

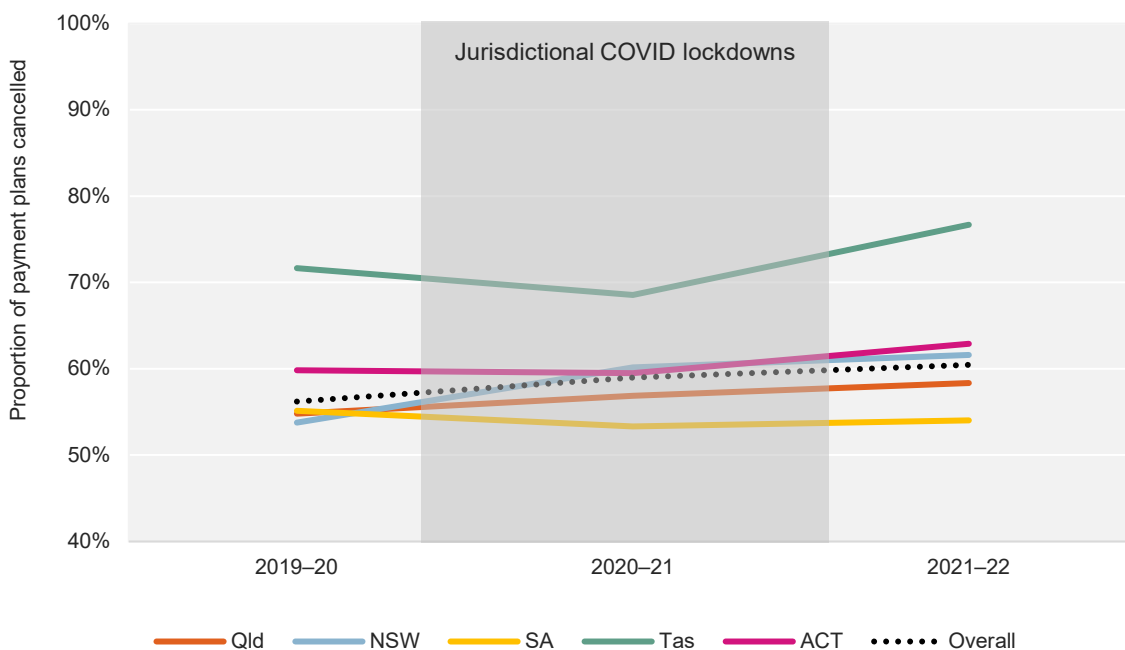
The proportion of payment plans cancelled is expressed as a percentage of those completed plus those cancelled. Some customers cycle on and off payment plans more than once in a year. This tends to increase the proportion of payment plans cancelled relative to the proportion of payment plans successfully completed. It may reflect the extent to which enduring circumstances are causing customers to need a payment plan.

We do not collect data from retailers that details reasons for payment plan cancellations. There may be many reasons why a customer may not make a payment. However, agreed payment plans must be designed to be sustainable and affordable, otherwise a customer is unlikely to be able to continue to make the required payments.

When a payment plan is cancelled, the customer returns to a normal billing and debt collection cycle. Customers may subsequently be provided with an opportunity to re-establish a payment plan or engage with a hardship program. Eventually, some customers may be disconnected from supply by their retailer or have a credit default recorded against their name if they are unable to make their required payments.

More than 50% of payment plans across all jurisdictions are cancelled, with almost 80% of payment plans cancelled in Tasmania. The proportion of electricity customers with payment plans cancelled increased across all jurisdictions in 2021–22 (Figure 3.10). Customers in Tasmania had the highest percentage of payment plans cancelled and also had the biggest increase in 2021–22. Conversely, customers in South Australia had the smallest increase in the percentage of payment plans cancelled and had the lowest percentage in 2021–22. This was closely followed by Queensland, which had the second lowest percentage of payment plans cancelled. Customers in the ACT and NSW had fairly large increases in the percentage of payment plans cancelled and remained above the overall average.

Figure 3.10 Electricity payment plans cancelled by state/jurisdiction

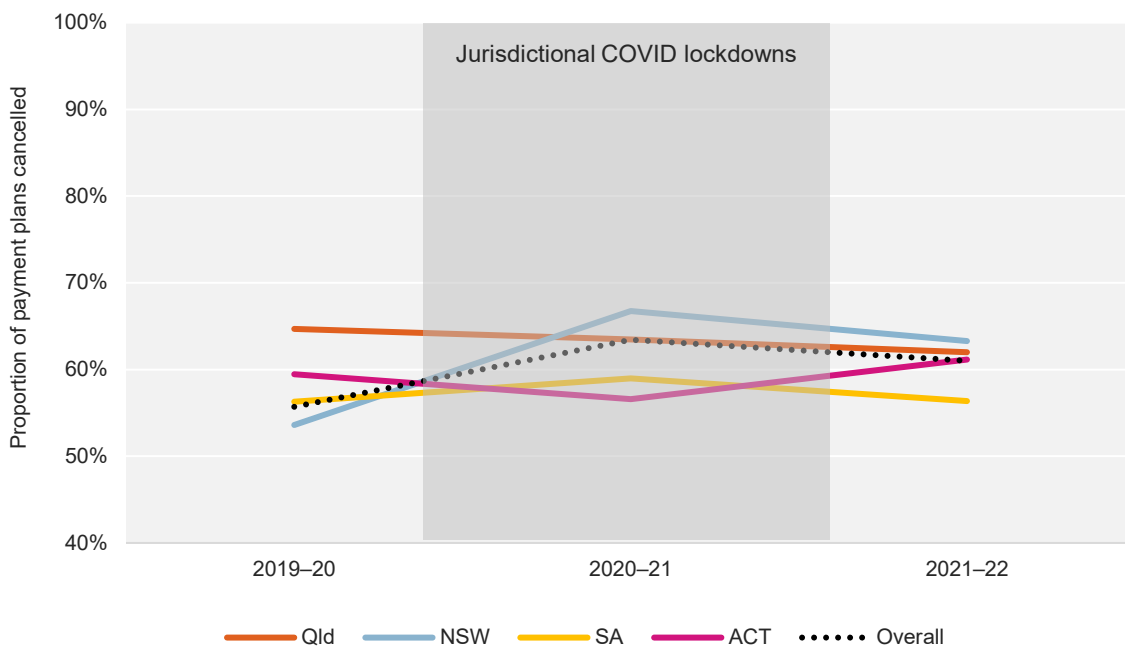


Note: Data for previous years is unavailable for this indicator.

Source: AER.

For gas customers, the change in the percentage of payment plans cancelled varied across jurisdictions (Figure 3.11). In the ACT there was a large increase, in Queensland it remained steady and in NSW and South Australia there was a decrease.

The percentage of payment plans cancelled remains the highest in NSW in 2021–22 and the lowest in South Australia.

Figure 3.11 Gas payment plans cancelled by state/jurisdiction

Note: Data for previous years is unavailable for this indicator.
Source: AER.

3.3 Hardship programs

Hardship programs are intended to provide the most appropriate form of assistance to eligible residential customers in ongoing financial difficulty. These customers may not have the capacity to manage their ongoing usage charges, let alone their existing energy debt.

The minimum assistance that retailers must provide in their hardship programs is set out in the *National Energy Retail Rules*⁵⁷. This includes flexible payment options and help to identify government concessions for the customer. Participation in hardship programs provides customers with protections from disconnection for non-payment.

The AER's [Customer Hardship Policy Guideline](#), which came into effect on 2 April 2019, makes clear that the onus is on retailers to take early steps to identify customers in hardship.⁵⁸ The purpose of a retailer's customer hardship policy is to identify residential customers experiencing payment difficulties due to hardship and to assist those customers to better manage their energy bills on an ongoing basis.

Early in the COVID-19 pandemic in 2020–21, the number of electricity and gas customers on hardship programs dropped. This was largely because many retailers provided bill payment deferral options to customers and these alternative debt arrangements were often easier to access than formal hardship programs. In addition, government COVID-19 pandemic support payments protected customers, including customers on hardship programs, from experiencing further financial difficulty.

⁵⁷ AEMC, [Rule Determination – National Energy Retail Amendment \(Strengthening protections for customers in hardship\) Rule 2018](#), AEMC, 2018.

⁵⁸ AER, [Customer Hardship Policy Guideline](#), AER, 2019, para 31(a).

As the COVID-19 pandemic continued, the AER encouraged retailers to move customers from alternative debt arrangements to formal payment plans and hardship programs. For customers in ongoing financial difficulty, hardship programs provide greater protections and flexibility than bill deferral and are specifically tailored to a customer's circumstances.

In 2021–22 the AER's compliance and enforcement priority 1, focused on effective identification of residential customers in financial difficulty and offer of payment plans that have regard to the customer's capacity to pay.⁵⁹ The AER took enforcement actions during 2021–22 to support this priority, by instituting proceedings in the Federal Court against Origin Energy, alleging systemic failures in implementing its hardship policy and assessing customers' capacity to pay. We also investigated concerns that, from September 2019 to March 2020, Alinta Energy may have required customers in vulnerable circumstances to make upfront payments or seek financial counselling, when it should have offered customers access to payment plans or assistance to join Alinta Energy's hardship program.

Hardship programs should protect customers from accumulating larger amounts of debt over time. They should also protect customers from continuing toward disconnection for non-payment. Nevertheless, during the COVID-19 pandemic, we observed a considerable increase in debt on entry to hardship programs and average debt levels for hardship customers. This may indicate a large proportion of hardship customers are not meeting their usage costs, let alone paying off debt. These trends will be explored in more depth over the course of this section.

3.3.1 More customers are entering hardship programs with more debt

Identifying hardship customers

Our *Customer Hardship Policy Guideline* requires retailers to take early steps to identify residential customers experiencing hardship. Early identification maximises opportunities for effective intervention to help customers overcome and manage their financial difficulties. Retailers may be contacted by a financial counsellor or a representative acting on behalf of a customer, or by customers themselves.

Some circumstances that may help retailers identify customers who might benefit from hardship programs are:

- difficulty meeting payments, irregular or sporadic payments, or partial payments
- a history of broken payment arrangements
- receipt of a higher than expected bill
- repeated reminder or multiple disconnection warning notices.

A customer may also wish to notify their retailer of a change in personal circumstances that has resulted in them experiencing financial difficulty, such as:

⁵⁹ AER, [Annual compliance and enforcement report 2021–22](#), AER, 2022.

- a prolonged change in personal circumstances, such as a loss of or decrease in employment
- a relationship breakdown or change of home circumstances
- a death in the family
- an unexpected one-off expense.

Number of residential customers entering hardship programs has increased, not to pre-COVID-19 pandemic level

The number of residential customers entering hardship programs dropped substantially at the start of the COVID-19 pandemic in 2020–21. Since then, entries to hardship programs have risen but remain consistently below pre-COVID-19 pandemic levels. In 2019–20, before the COVID-19 pandemic, over 130,000 electricity customers entered hardship programs. During 2021–22 around 107,000 customers entered hardship programs. Similarly, around 33,000 gas customers entered hardship programs in 2019–20, whereas around 27,000 gas customers entered hardship programs in 2021–22. The initial decrease at the start of the COVID-19 pandemic was potentially driven by retailers allowing customers to defer payment of their energy bill. These alternative debt arrangements could be accessed more easily than formal payment plans or hardship programs – often simply via their website. Many customers who may otherwise have joined a hardship program instead deferred payment of their bill.

Customers may enter hardship programs through various ways. Many customers self-identify as being in hardship and apply to join their retailer's hardship program. However, the AER's *Customer Hardship Policy Guideline* also requires retailers to take steps to identify customers who may be in hardship, so many customers also join hardship programs due to referral by their retailer. Finally, a small number of customers enter hardship programs via a financial counsellor referral.

At the start of the COVID-19 pandemic, the most pronounced drop in customers entering hardship programs was due to hardship self-identification. Among electricity customers, there was a 41% drop in self-identified entries from Q3 to Q4 2019–20, compared with a 36% drop in retailers instigating entry. In gas, there were 43% fewer customer-instigated entries in Q4 2019–20, compared with a 27% drop in retailer referrals. This suggests that readily accessible deferred debt arrangements were the most significant reason for the drop in hardship program entries.

Since the drop at the beginning of the COVID-19 pandemic, hardship program entries have rebounded but remain below pre-COVID-19 pandemic levels. Rising debt levels, including debt levels on entry to hardship programs, may suggest that the current lower numbers of hardship entries are not due to fewer customers being in financial difficulty. Instead, the lower number of hardship entries may be due to lower levels of customer engagement.

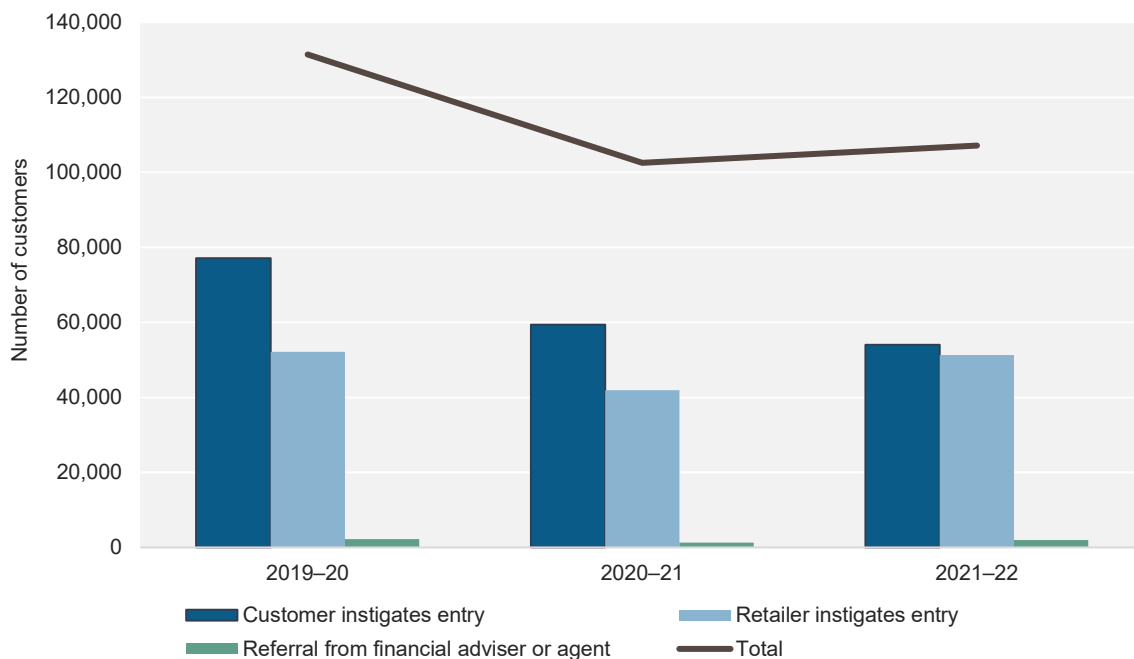
Another reason for the decrease in enrolment in hardship programs may be the temporary increase in government supports available to customers experiencing financial difficulty. Australian Government supports such as the JobKeeper Payment and the increased

JobSeeker Payment⁶⁰, as well as various state government supports and energy concessions⁶¹, protected many customers from severe payment difficulty during the COVID-19 pandemic.

In 2021–22, 48% of electricity and gas customers were entering hardship programs due to retailer referral, up from 41% in 2020–21, with self-identifying customers reducing from 58% in 2020–21 to 50% in 2021–22 (Figure 3.12 and Figure 3.13). Retailers should continue to proactively identify customers experiencing hardship and encourage customer engagement so that customers in hardship can receive timely assistance.

The increase in retailer referrals may also reflect the actions taken to support the AER's compliance and enforcement priority, which focuses on effective identification of residential customers in financial difficulty and offer of payment plans that have regard to the customer's capacity to pay, including actions against Origin Energy and Alinta Energy.

Figure 3.12 Reasons for electricity residential customers entering hardship programs

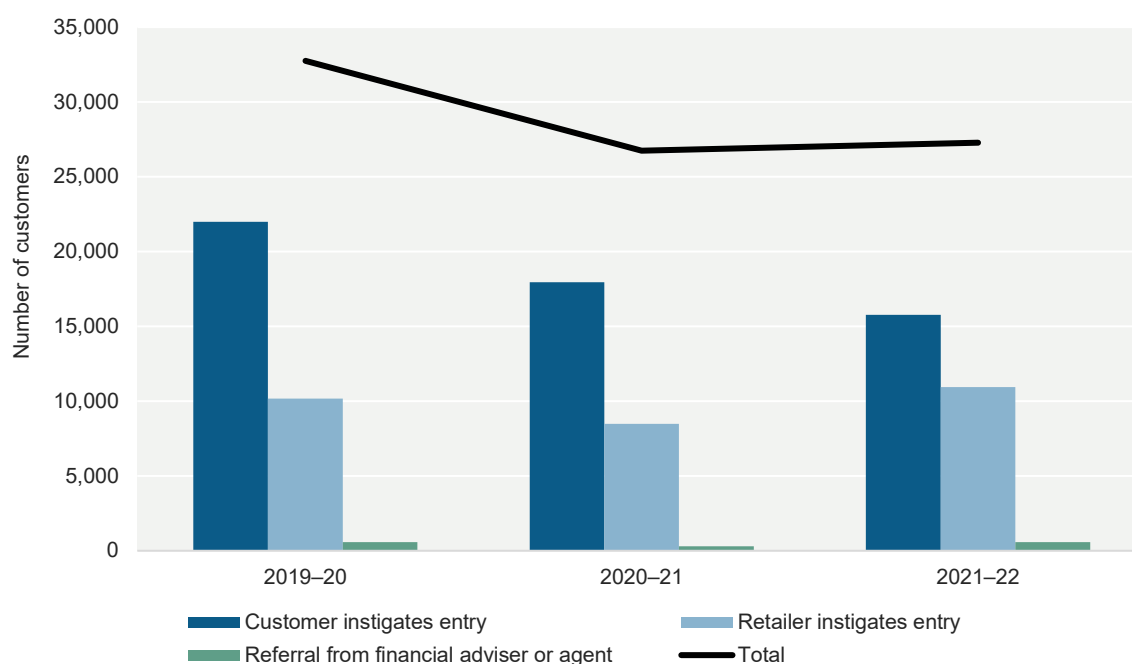


Note: Data for previous years is unavailable for this indicator.

Source: AER.

⁶⁰ The ABS [Household Impacts of COVID-19 Survey](#), June 2020, suggests that in May and June 2020 around 30% of customers who received a government stimulus payment used it to pay household bills.

⁶¹ Nearly every jurisdiction offered additional support to help energy consumers pay their bills during the COVID-19 pandemic. Energy Consumers Australia (ECA), [Australia's Energy Transition: A snapshot of the Changing Policy Landscape](#), ECA, 2021, p. 29.

Figure 3.13 Reasons for gas residential customers entering hardship programs

Note: Data for previous years is unavailable for this indicator.
Source: AER.

Debt levels on entry to hardship programs rising

Residential customers are entering hardship programs with higher levels of debt. In 2021–22, 22% of customers entering electricity hardship programs were carrying over \$2,500 in debt, up from 20% in 2020–21. Of electricity customers entering hardship programs with debt over \$2,500⁶², 68% of those customers in this category had debt over \$3,500 in 2021–22, up from 65% in 2020–21 (Figure 3.14).

In 2021–22 electricity customers' average debt on entry to hardship programs was \$1,692, up from \$1,586 in the previous year and \$1,306 in 2019–20. Tasmania had the highest debt on entry to electricity hardship programs at \$3,662, up from \$2,609 a year ago. This increase reflects Tasmania's major retailer Aurora Energy's policy to cease disconnecting customers for non-payment following the AER's *SoE* during the COVID-19 pandemic, and its subsequent proactive engagement to transition many of those customers into their hardship programs in 2021–22. Queensland had the lowest level of debt on entry to hardship, at \$1,123. This is visualised in section 3.3.2, subsection 'Level of hardship debt', where we compare average debt on entry to hardship programs with average hardship debt.

Debt on entry is generally lower in gas but the trend has been similar to electricity. In 2021–22, 8% of customers entering gas hardship programs were carrying over \$2,500 in debt, up from 7% in 2020–21 (Figure 3.15). In section 3.3.2 we compare average debt on entry to gas hardship programs with average gas hardship debt.

The upward trend in debt on entry to hardship is concerning and mirrors increases we have observed in average hardship debt and debt at disconnection. These rising debt levels may

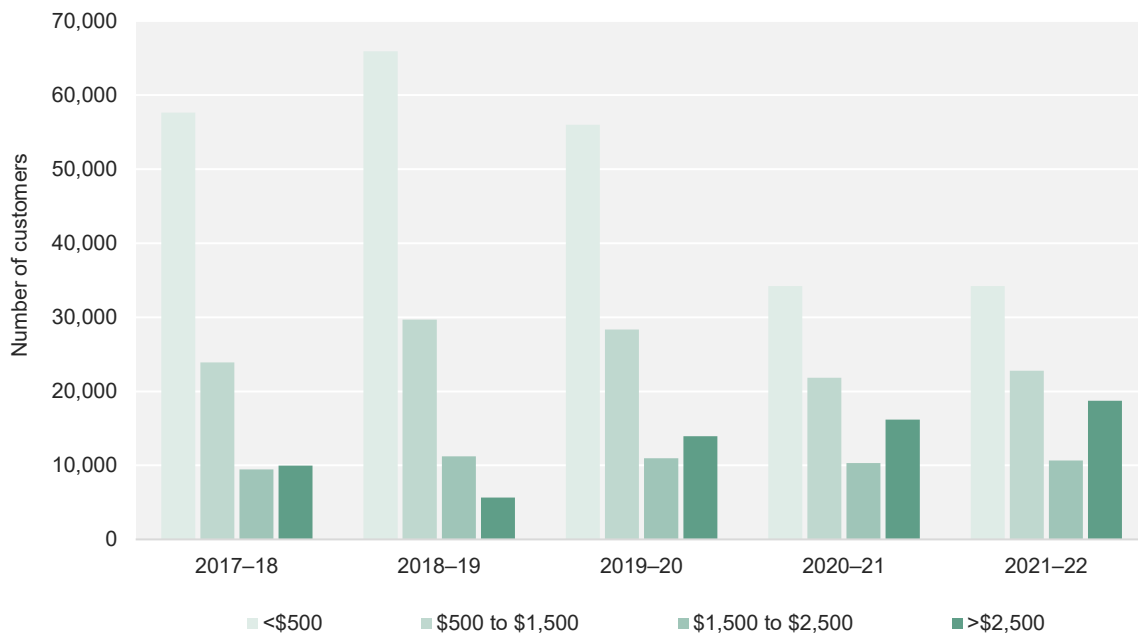
⁶² Since Q3 2018–19, the category of debt over \$2,500 includes the category of debt over \$3,500.

reflect that customers are experiencing greater financial difficulty or accumulating debt for longer before receiving assistance. This may also indicate lower levels of engagement with customers, especially given there have been fewer entries to hardship programs despite overall increases in debt levels.

Customers often seek payment assistance after receiving a disconnection notice. However, retailers paused disconnections, which resulted in held back disconnection notices and customers not being prompted to contact their retailers for payment support.

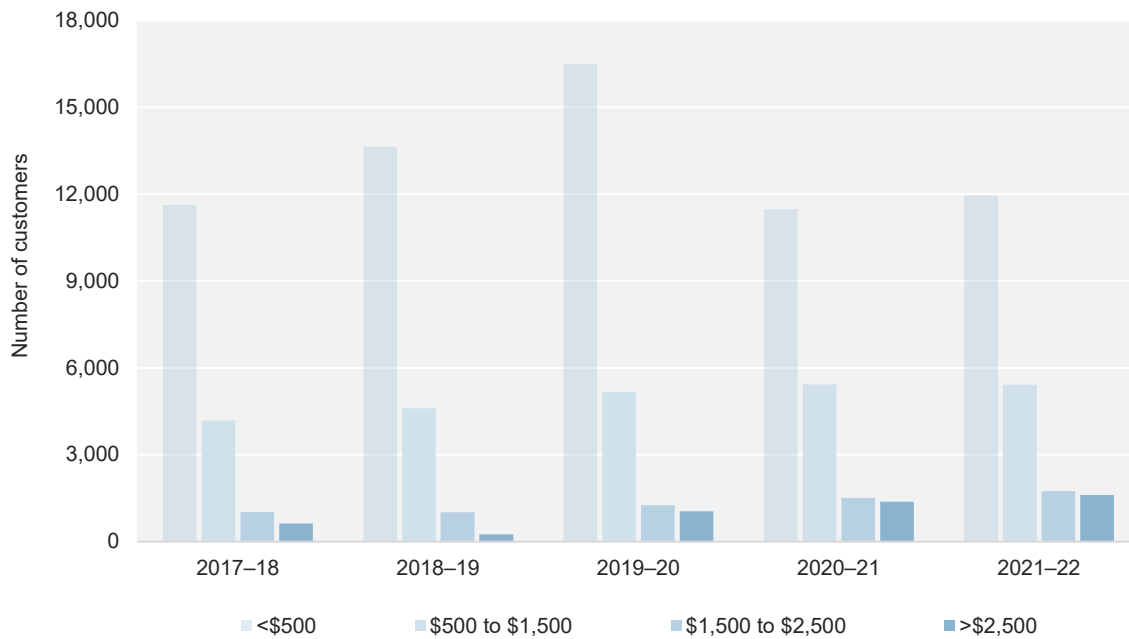
The lack of engagement with customers may have contributed to a customer accumulating more debt, attributing to higher debt levels for customers entering hardship programs. It is important for retailers to find ways to engage with their customers without the threat of disconnection, which is a last resort under the *National Energy Retail Law*. Retailers should proactively identify customers who may be experiencing hardship and should work hard to engage these customers without resorting to the threat of disconnection.

Figure 3.14 Debt levels for electricity residential customers entering hardship programs



Note: From Q3 2018–19, the category of debt over \$2,500 includes the category of debt over \$3,500.

Source: AER.

Figure 3.15 Debt levels for gas residential customers entering hardship programs

Note: From Q3 2018–19, the category of debt over \$2,500 includes the category of debt over \$3,500.

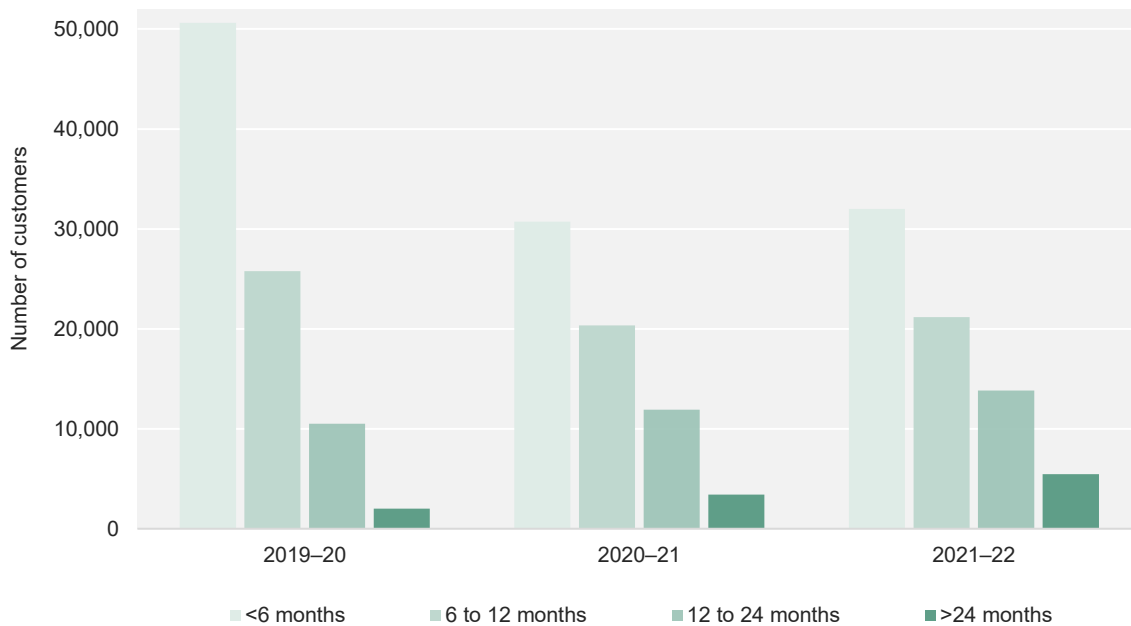
Source: AER.

Number of residential customers entering hardship programs with older debt is increasing

Electricity and gas residential customers entering hardship programs are most likely to owe debt to their retailer for an extended period.

There were small increases in the number of customers entering hardship programs with recently incurred debt, but they remain significantly below pre-COVID-19 pandemic levels. In 2019–20, 50,634 electricity customers entered hardship programs with debt less than 6 months old, compared with 30,712 in 2020–21 and 32,010 in 2021–22 (Figure 3.16). The number of customers entering with debt aged from 6 to 12 months old and 12 to 24 months old had minor increases.

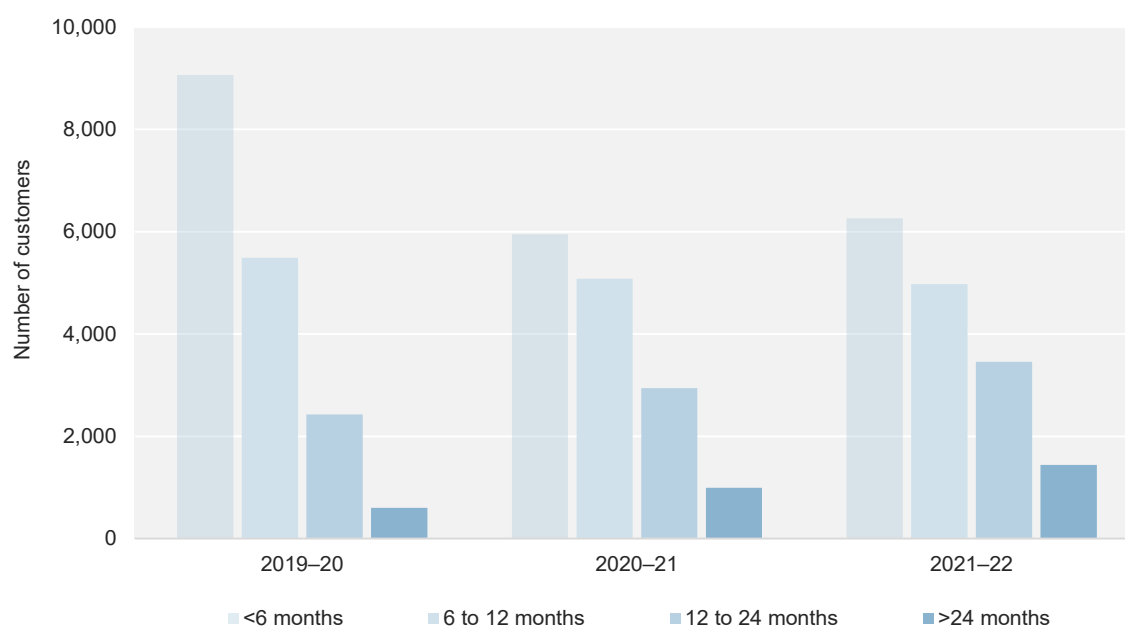
Meanwhile, 5,458 customers entered hardship programs with debt older than 24 months in 2021–22, up from 3,441 in 2020–21 and 2,038 in 2019–20. The increase in customers entering hardship programs with older debt may imply that some customers are accruing debt for longer and accruing more debt before entering hardship programs.

Figure 3.16 Debt aging for electricity customers entering hardship programs

Note: Debt is defined as the oldest energy bill debt for customers who entered hardship programs during the reporting period, as at the last calendar day of the reporting period. Data for previous years is unavailable for this indicator.

Source: AER.

The trends for gas customers are similar to electricity. The number of customers with debt less than 6 months old who entered a hardship program increased from 5,950 in 2020–21 to 6,264 in 2021–22, after previously falling during the COVID-19 pandemic (Figure 3.17). Similarly, more customers with debt 12 to 24 months old and with debt greater than 24 months old have entered a hardship program. This again implies an increase in the delay before customers in financial difficulty are entering hardship programs.

Figure 3.17 Debt aging for gas customers entering hardship programs

Note: Data for previous years is unavailable for this indicator.

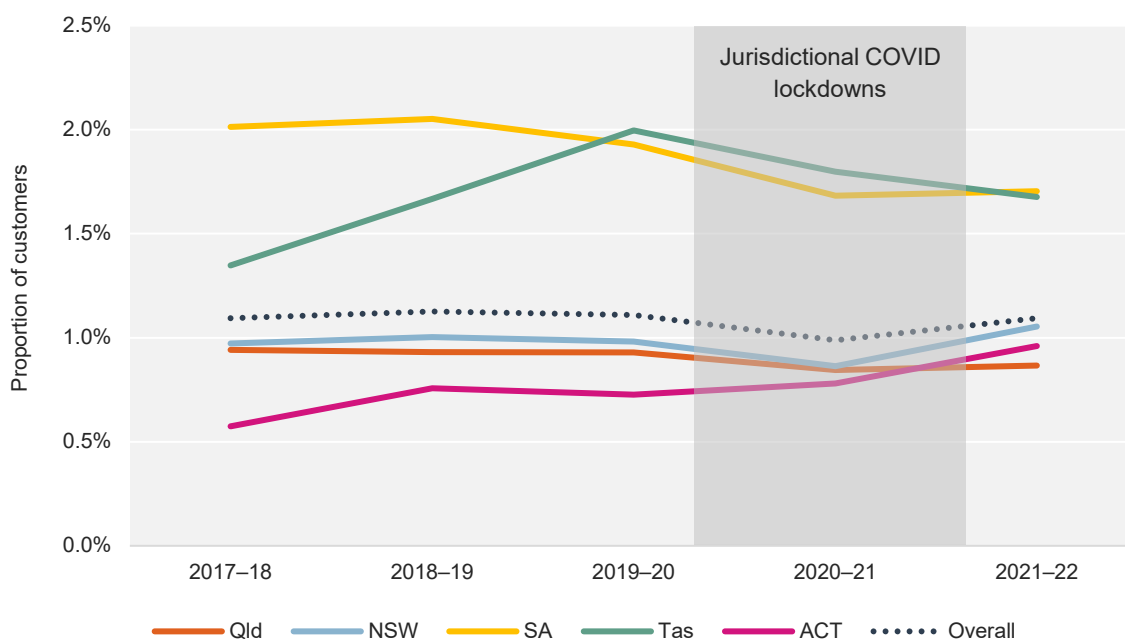
Source: AER.

3.3.2 Number of customers on hardship programs is increasing

Proportion of customers in hardship rises in most jurisdictions

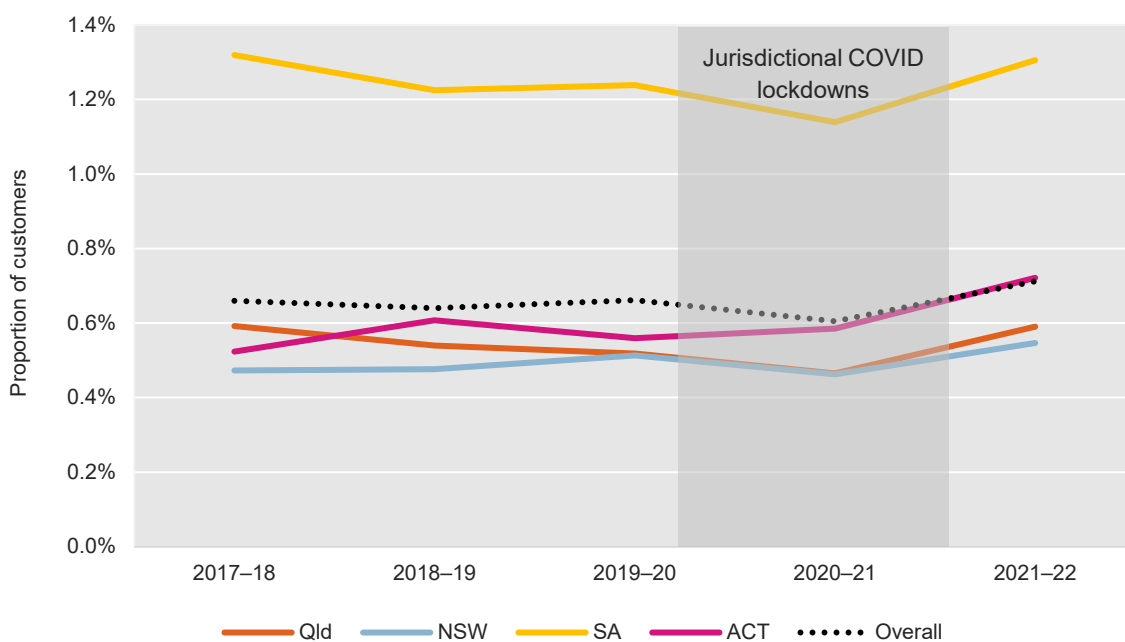
The proportion of electricity and gas customers on hardship programs increased in 2021–22, reflecting an increase in the number of customers entering hardship programs in 2021–22 compared with in 2020–21 (discussed in section 3.3.1).

South Australia had the highest proportion of customers on electricity hardship programs in 2021–22, just ahead of Tasmania (Figure 3.18). This reflects that South Australia and Tasmania have the lowest average incomes. However, Tasmania is the only jurisdiction where the proportion of customers on hardship programs decreased in 2021–22, compared with 2020–21. Queensland had the lowest proportion of electricity customers on hardship programs, closely followed by the ACT.

Figure 3.18 Electricity customers on hardship programs by state/jurisdiction

Note: Data as at 30 June each year.
Source: AER.

Like in electricity, the number of gas customers on hardship programs increased in 2021–22 (Figure 3.19). South Australia had the highest proportion of gas customers on hardship programs.

Figure 3.19 Gas customers on hardship programs by state/jurisdiction

Note: Data as at 30 June each year.
Source: AER.

Higher average debt levels for hardship program customers

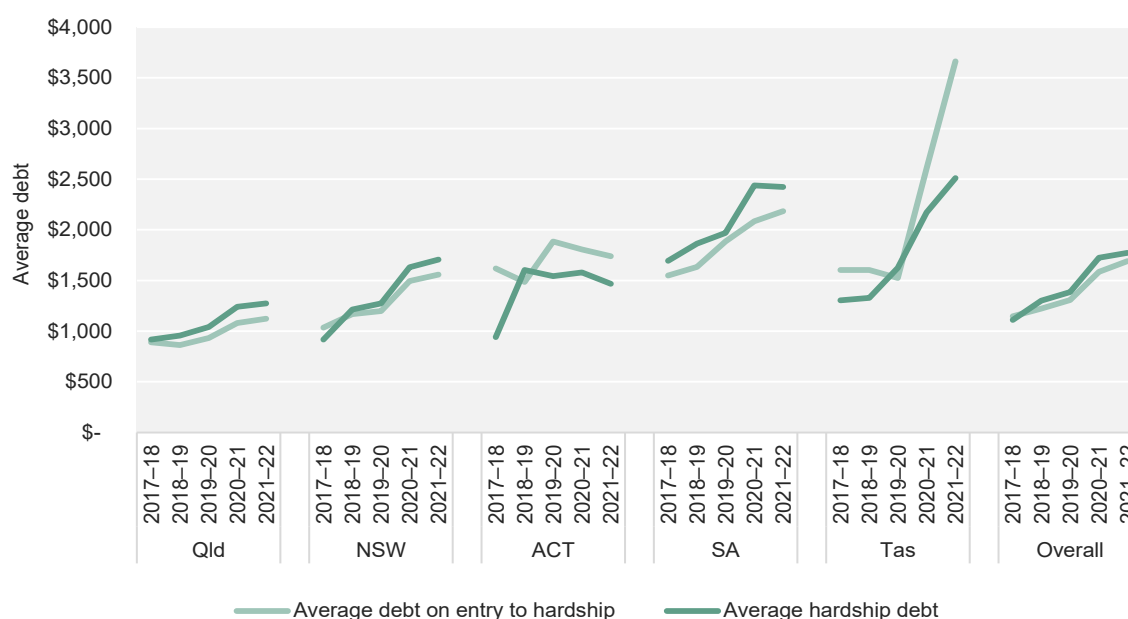
Average debt for both electricity and gas customers on hardship programs has increased. The upward trend has been observed over several years but grew steeper during the COVID-19 pandemic and continues to increase in some jurisdictions.

Average hardship debt across the jurisdictions was \$1,773 in 2021–22. Tasmania had the highest average hardship debt at \$2,511.

Concerningly, average hardship debt is higher than average debt on entry to hardship in most jurisdictions. This suggests that customers on hardship programs are often accumulating more debt while on a program, rather than reducing their debt. However, Tasmania experienced a sharp increase in average debt on entry to hardship programs, making it significantly higher than their average hardship debt.

In most jurisdictions both electricity debt on entry to hardship and average electricity hardship debt are trending upwards (Figure 3.20). Average electricity hardship debt was higher than average debt on entry in Queensland, NSW, and South Australia.

Figure 3.20 Average electricity hardship debt and average debt at time of entry to hardship programs by state/jurisdiction



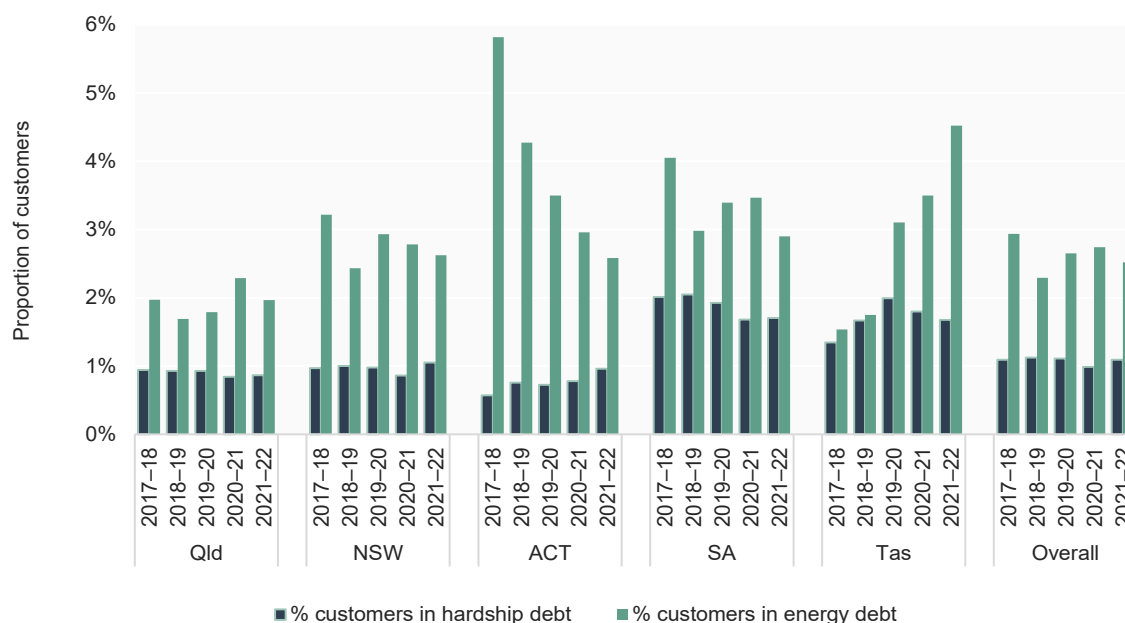
Note: Data as at 30 June each year.

Source: AER.

For residential customers, the proportion of customers in hardship debt increased across most jurisdictions in 2021–22 (Figure 3.21).

For energy (non-hardship) debt, the proportion of customers with debt has slightly decreased, which may reflect an increase in the number of newly indebted customers being identified and brought onto hardship programs.

In the ACT, the proportion of customers in energy (non-hardship) debt continued to decrease over recent years. The proportion of hardship debt customers remained relatively steady.

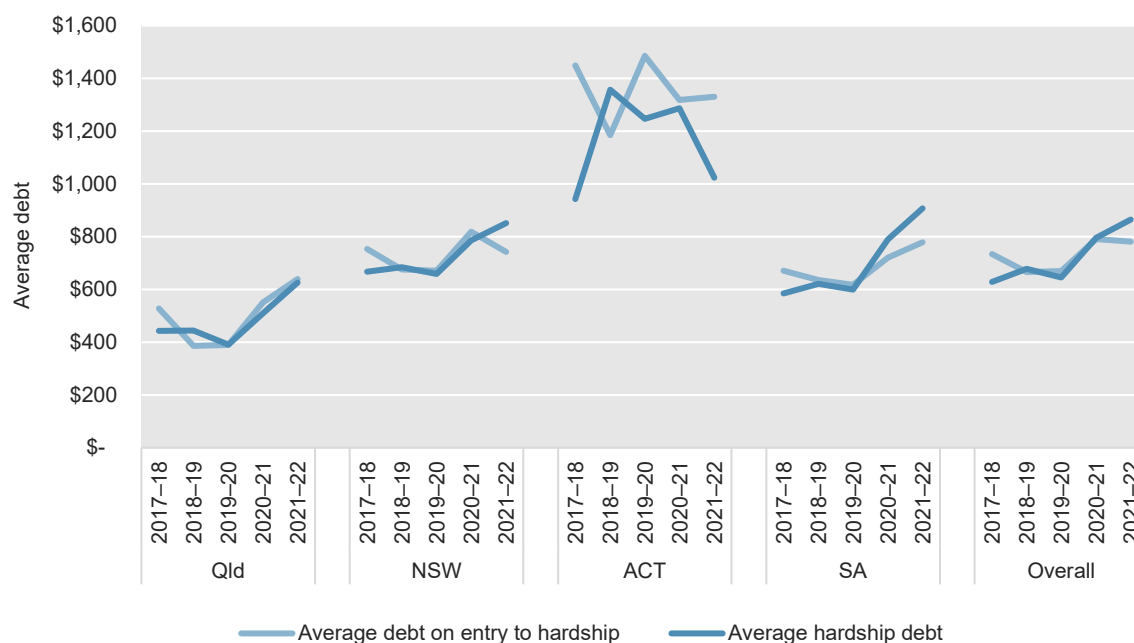
Figure 3.21 Residential customers in hardship debt and energy debt by state/jurisdiction

Source: AER.

Debt trends for gas customers on hardship programs are not as high as for electricity customers. Gas hardship debt did not begin to trend upwards until the start of the COVID-19 pandemic and, even then, the trend (for both average debt on entry and average hardship debt) was less pronounced than in the electricity market.

Also, positively, average debt on entry to gas hardship programs is typically about the same or lower than average gas hardship debt (Figure 3.22). This implies that gas customers have generally avoided accumulating more debt while on a hardship program.

Both gas hardship debt on entry and average gas hardship debt are highest in the ACT and lowest in Queensland. This reflects more customers with high gas usage in the ACT, where gas is often used for heating. Gas is very much a secondary fuel source in Queensland.

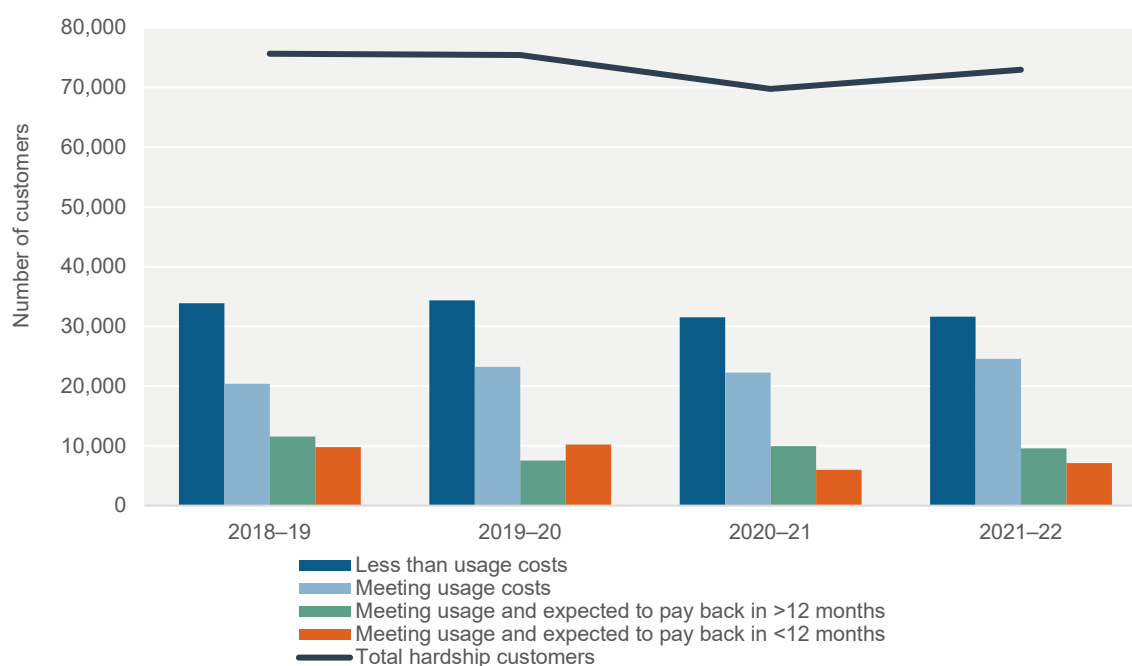
Figure 3.22 Average gas hardship debt and average debt at time of entry to hardship programs by state/jurisdiction

Note: Data as at 30 June each year.

Source: AER.

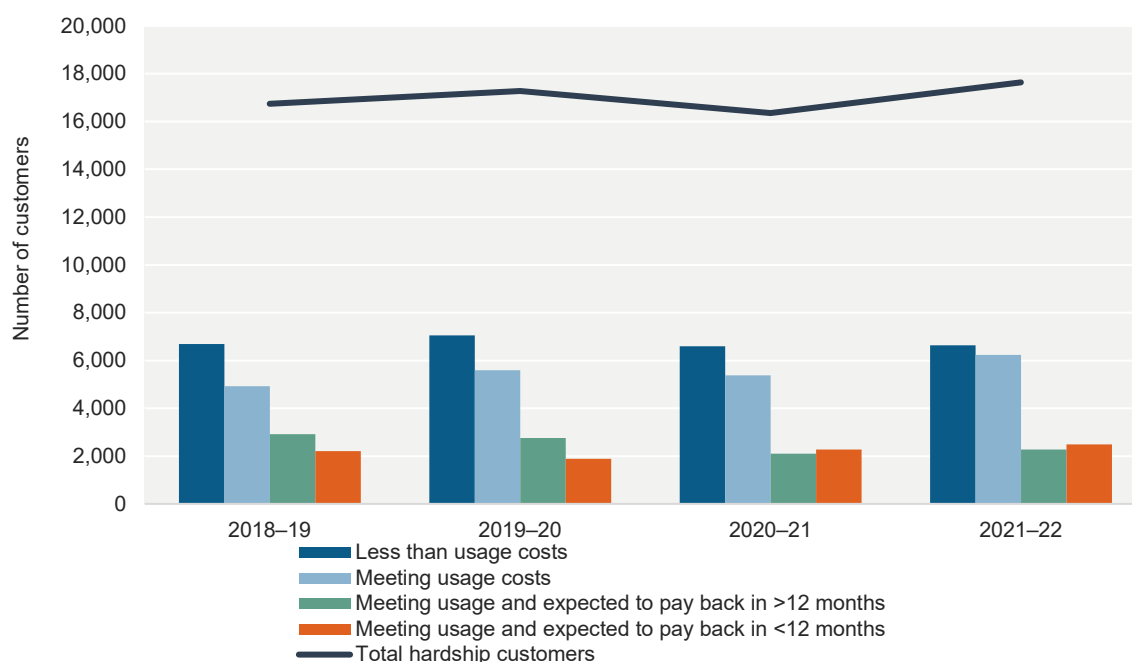
Number of hardship customers not meeting usage costs remains steady

Just under half of electricity hardship customers are not meeting their usage costs – a proportion that has held relatively steady over the past few years (Figure 3.23). The number of hardship customers who are meeting usage costs increased by 10% in 2021–22 compared with 2020–21 but compared with the last few years it is still fairly stable. For hardship customers who are meeting usage costs, there was a 4% decrease in customers expected to clear their arrears in 12 months, while there was a 20% increase in customers expected to clear their arrears in 24 months. This reflects that average hardship debt has been increasing and that more customers are expected to take longer to clear their arrears.

Figure 3.23 Electricity hardship customers meeting usage costs

Note: Data for previous years is unavailable for this indicator.
Source: AER.

Customers on gas hardship programs are faring slightly better than customers on electricity hardship programs in paying their usage costs (Figure 3.24). The number of gas customers unable to meet usage costs has held relatively steady during 2020–21 and 2021–22 but the number of gas customers who are meeting usage costs, including clearing arrears in less than 12 months, has increased.

Figure 3.24 Gas hardship customers meeting usage costs

Note: Data for previous years is unavailable for this indicator.
Source: AER.

Majority of hardship program customers on program for less than a year

At the end of 2021–22, about three-quarters of customers on both electricity and gas hardship programs had been on a program for less than a year. Meanwhile, around 10% of customers in each segment had been on a hardship program for more than 2 years.

Of customers exiting hardship programs in 2021–22, over half were excluded⁶³ from the program (section 3.3.3). However, some customers may later return to a hardship program.

Assistance offered to hardship customers

The *National Energy Retail Law* sets the minimum assistance retailers must offer in their hardship program, including:

- processes to identify residential customers experiencing payment difficulties due to hardship
- processes for early response to assist hardship customers
- flexible payment options, such as Centrepay⁶⁴
- processes to identify government concession programs and financial counselling services, and to notify hardship customers of these
- an outline of the programs the retailer may use to assist hardship customers
- processes to review the appropriateness of a hardship customer's contract
- processes to assist customers with strategies to improve their energy efficiency.

Retailers may also provide assistance beyond the minimum legal requirements. Table 3.1 shows the most common types of assistance that retailers offer their hardship customers and the proportion of hardship customers receiving each type.

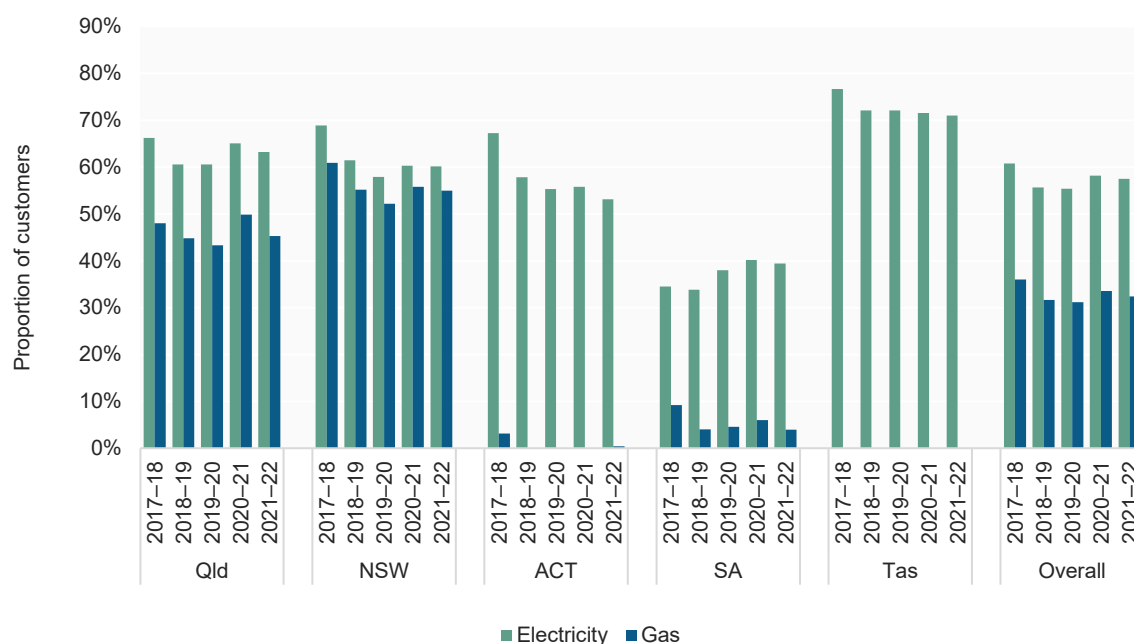
Hardship customers receiving concessions decreased

The proportion of electricity hardship customers receiving energy concessions decreased in every jurisdiction in 2021–22 (Figure 3.25). Tasmania continues to have the highest proportion of hardship customers receiving concessions at 71%, while South Australia had the lowest at 39%.

Gas hardship customers receiving concessions increased in all jurisdictions in 2021–22, except for the ACT. In South Australia and the ACT, a single energy concession covers both electricity and gas and is typically credited to a customer's electricity account. We do not collect gas data for Tasmania, so concessions only include electricity customers. Gas hardship concession levels were highest in NSW at 55% and Queensland at 45%.

⁶³ Excluded means a residential customer who is referred to the hardship program by any means but is removed from the hardship program for any reason other than successfully completing the hardship program or not accepted onto the hardship program. This does not include customers who decline to participate in the program.

⁶⁴ Centrepay involves a customer's energy bills being deducted from their Centrelink payments.

Figure 3.25 Hardship customers receiving concessions by state/jurisdiction

Note: Data as at 30 June each year.
Source: AER.

Table 3.1 Hardship customers receiving assistance

Type of assistance	Electricity			Gas		
	2019–20	2020–21	2021–22	2019–20	2020–21	2021–22
Incentive payments or discounts	50.6%	34.6%	43.4%	51.6%	39.8%	64.8%
Transferred to a different retail market contract	10.8%	12.4%	24.7%	8.6%	11.2%	27.7%
Debt reductions	9.4%	5.7%	6.0%	9.2%	7.7%	6.0%
Rebate that they were not otherwise receiving	10.8%	10.1%	7.9%	14.8%	14.1%	10.5%
Transferral from a standard retail contract to a market retail contract	1.0%	0.7%	0.5%	2.7%	0.7%	0.7%
Concession that they were not otherwise receiving	2.3%	3.6%	3.3%	1.4%	2.1%	1.6%
Reimbursement/credit of lost pay on time discount	1.2%	0.4%	0.4%	0.6%	0.6%	0.1%
Onsite energy audits completed by the retailer	0.1%	0.8%	0.3%	0.0%	0.1%	0.0%
Reimbursement/credit of late payment fees	0.1%	0.3%	0.2%	0.2%	0.4%	0.4%
New appliances through appliance replacement programs	0.2%	0.1%	1.0%	0.0%	0.0%	0.0%

Source: AER.

3.3.3 Fewer residential customers exiting hardship programs

A ‘successful’ exit of a hardship program occurs where a residential customer completes a hardship program and, by agreement with the retailer, returns to normal billing cycles. This includes a customer agreeing to a new payment plan or flexible payment arrangement.

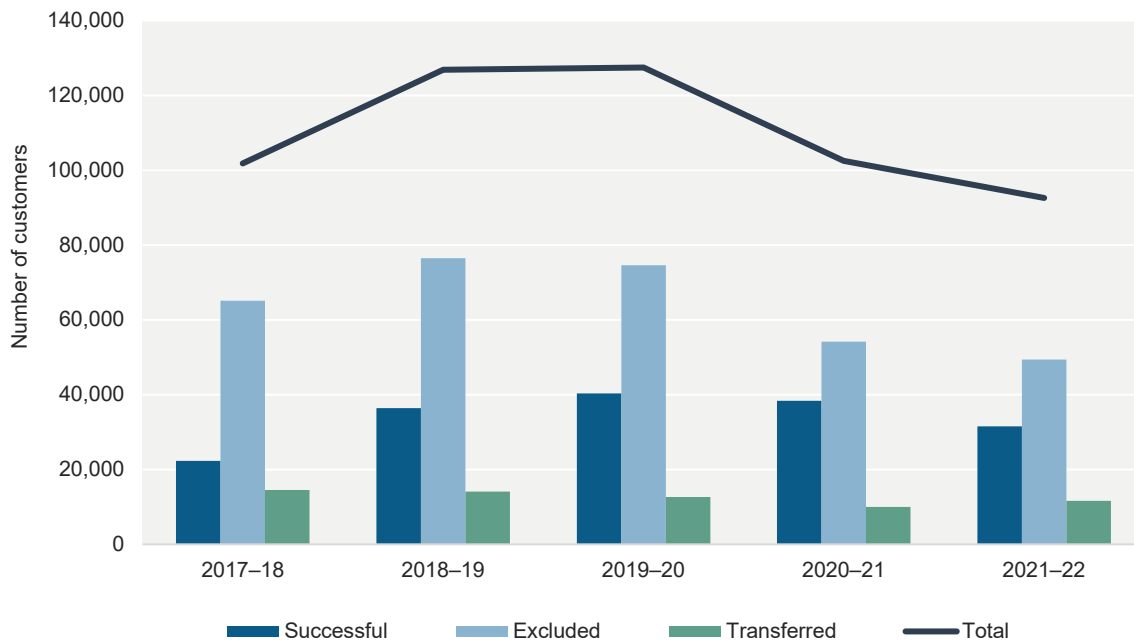
However, customers will not always exit hardship programs successfully. Customers may be excluded for non-compliance if they do not adhere to the terms of the hardship program – for example, if they do not make the agreed payments. Customers may also exit hardship programs if they leave their retailer – for example, if they switch to another retailer.

The number of electricity customers exiting hardship programs dropped at the start of the COVID-19 pandemic, due to substantially fewer customers being excluded for non-compliance.

Electricity hardship program exclusions decreased from a peak of 74,559 in 2019–20 to 54,181 in 2020–21 and continued to decrease in 2021–22 to 49,414 (Figure 3.26). Exclusion for non-compliance remained the most common reason for a customer to exit a hardship program in 2021–22.

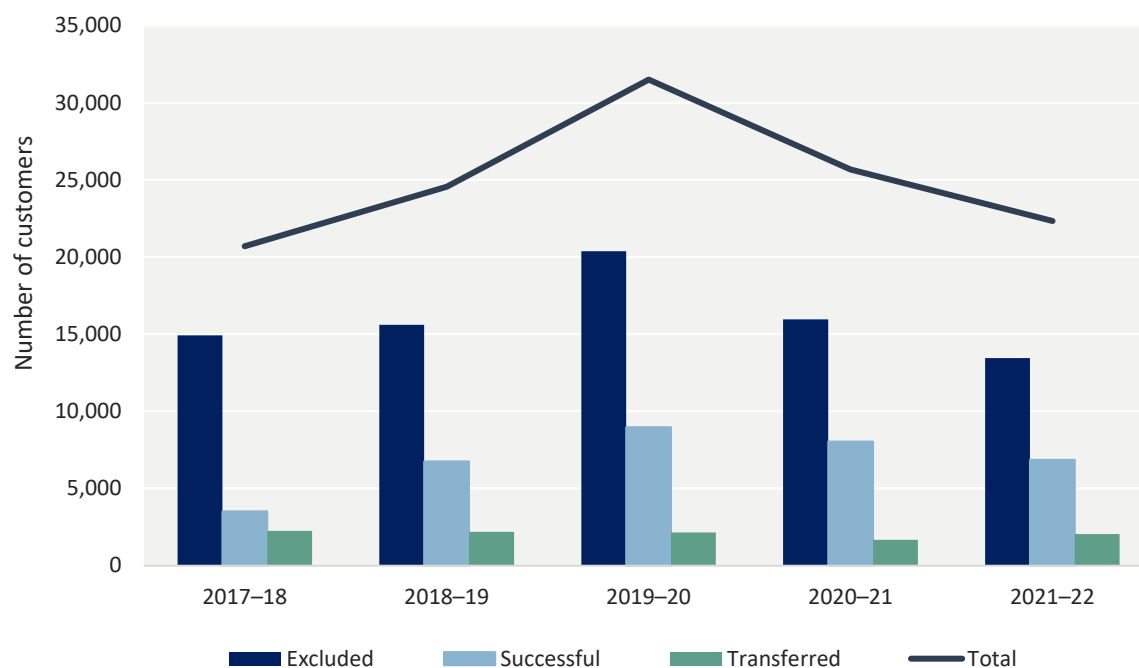
The number of customers successfully completing electricity hardship programs decreased by 18% in 2021–22 compared with 2020–21. The number of customers exiting due to leaving the retailer increased by 16%.

The decrease in exclusions from the hardship program is a positive development, which may reflect that retailers’ have been more effectively assisting energy customers in hardship. The AER’s compliance and enforcement activities to support priority 1 in focusing on the effective identification of residential customers in financial difficulty and offer of payment plans that have regard to the customer’s capacity to pay, may have also contributed to a decrease in exclusions.

Figure 3.26 Electricity customers exiting hardship programs

Source: AER.

Gas customers exiting hardship programs followed similar trends to electricity. After a spike in gas customers exiting hardship programs in 2019–20, gas hardship exits started to decrease in 2020–21 and this trend continued in 2021–22 (Figure 3.27). This was mostly driven by a drop in the number of gas customers excluded from hardship programs, but in 2021–22 there was also a reduction in the number of hardship customers exiting after successfully completing the program – from 8,047 in 2020–21 to 6,848 in 2021–22.

Figure 3.27 Gas customers exiting hardship programs

Source: AER.

Retailers are required to report the number of customers excluded from hardship programs for a variety of reasons, as displayed in Figure 3.28 and Figure 3.29.

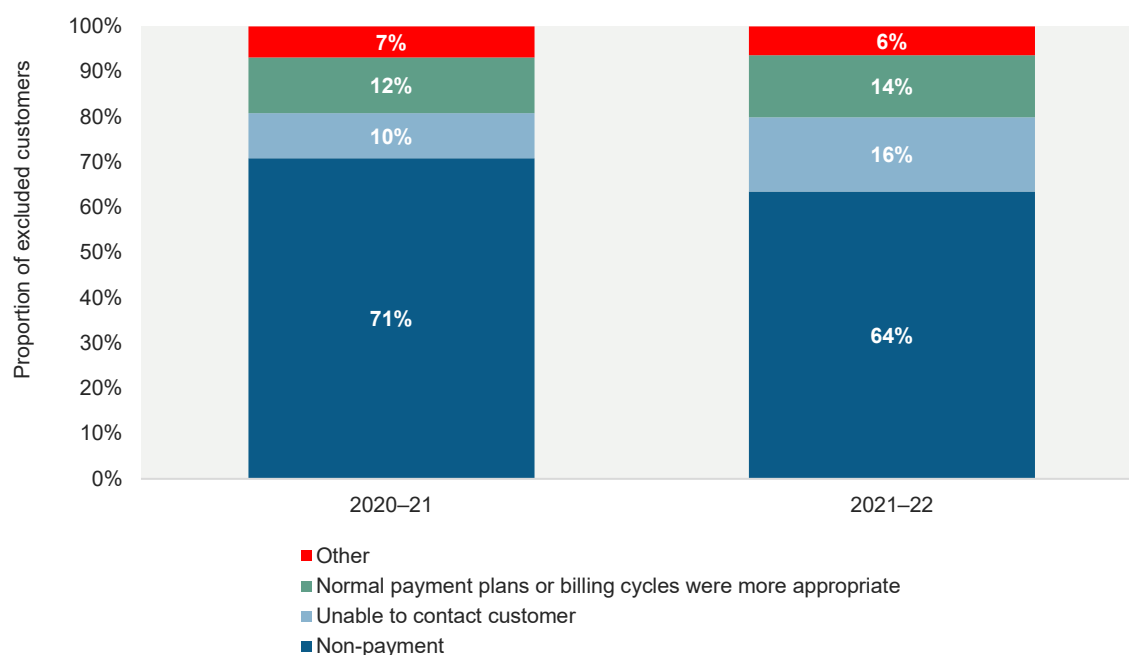
Failure to make the requested payments was the main reason for most hardship exclusions over the past 2 years. This was particularly the case in gas, where 80% of hardship exclusions occurred for this reason, compared with 64% of exclusions in electricity. In both cases, the number of exclusions decreased when compared with 2020–21.

A growing proportion of both electricity and gas hardship customers were excluded from hardship programs because normal payment plans, or billing cycles were more appropriate (14% of electricity customers and 10% of gas customers). Authorised retailers are obligated to identify residential customers experiencing payment difficulties due to hardship and to assist those customers to better manage their energy bills on an ongoing basis through a hardship policy. Normal payment plans or billing cycles are not valid reasons for exclusion.

16% of electricity customers and only 6% of gas hardship customers were excluded because the retailer could not contact the customer.

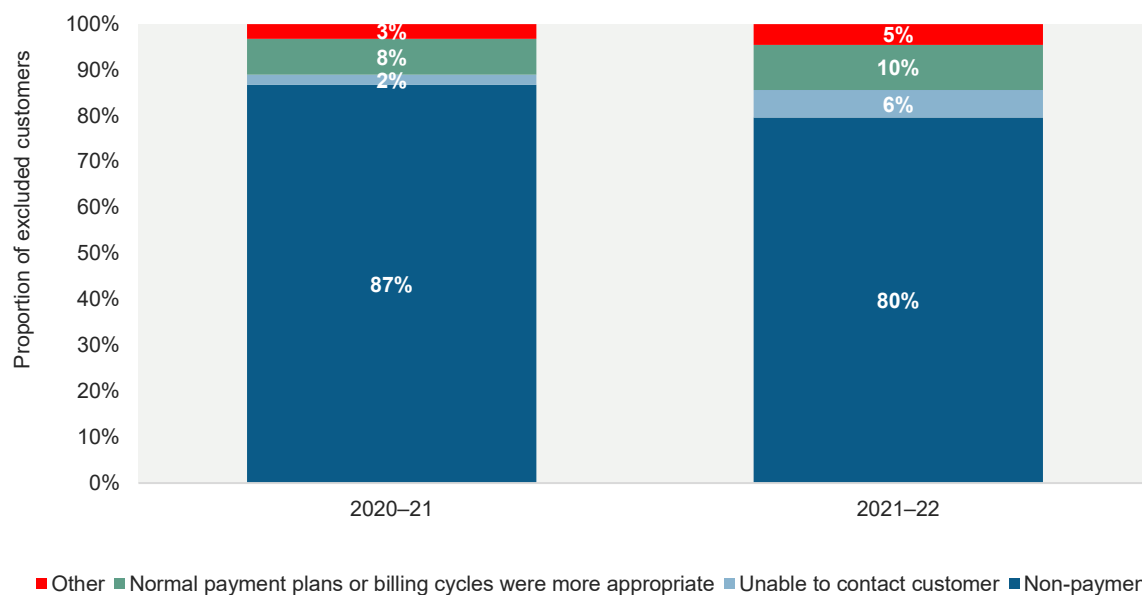
Although it is positive that fewer customers are being excluded for non-payment, rates of exclusion remain high and a large proportion of these exclusions still occur for non-payment. This reflects the high proportion of hardship customers unable to meet their ongoing usage costs. The AER is working to address these ongoing issues as part of [Towards energy equity – a strategy for an inclusive energy market](#)⁶⁵, which will seek to help customers facing payment difficulty to receive effective, tailored assistance.

⁶⁵ AER, [Towards energy equity – a strategy for an inclusive energy market](#), AER, 2022.

Figure 3.28 Electricity customers excluded from hardship programs

Note: Retailers also submit the number of customers excluded because they did not agree to the suggested payment plans, but we have grouped this with 'other' because the number of customers in this category was negligible. Data as at 30 June each year.

Source: AER.

Figure 3.29 Gas customers excused from hardship programs

Note: Retailers also submit the number of customers excluded because they did not agree to the suggested payment plans, but we have grouped this with 'other' because the number of customers in this category was negligible. Data as at 30 June each year.

Source: AER.

3.4 Concessions

Our [Retail Performance Reporting Guidelines](#) define energy concession customers as residential customers who are recorded by a retailer and are entitled to receive an energy concession, where the concession is administered or delivered by the retailer.

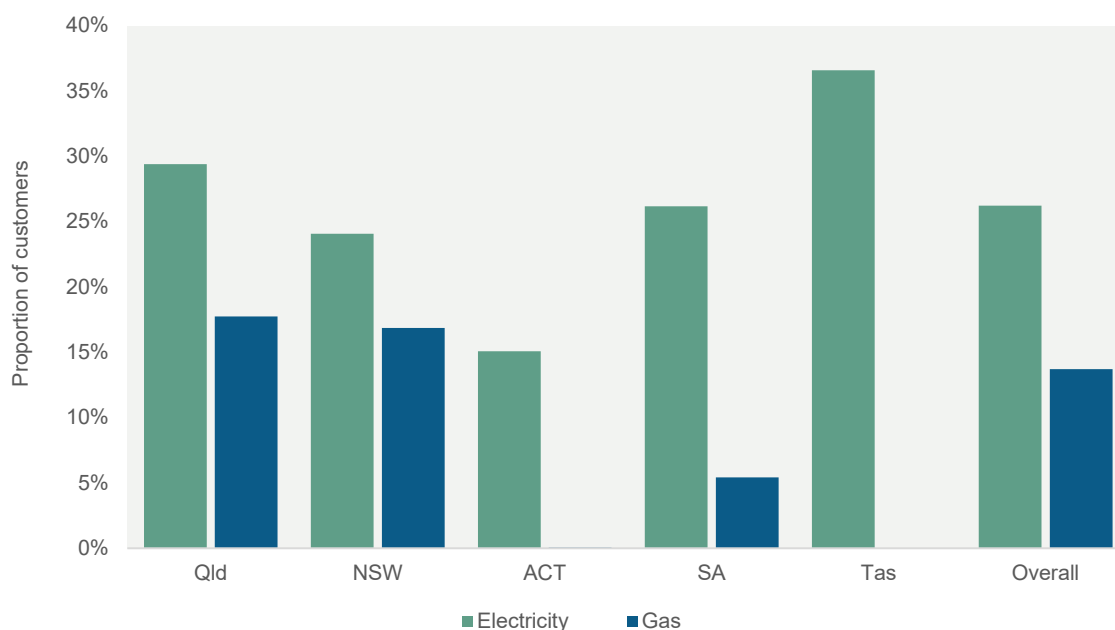
How concessions are applied, and the level of concessions, varies across jurisdictions. Although income levels affect the proportion of customers receiving energy concessions, different eligibility criteria across jurisdictions are also likely to be reflected in the figures. Table A2.3 in Appendix 2 sets out the assumptions we make about the energy concessions available across jurisdictions. Generally, customers must hold a valid government-issued concession card (for example, a Pensioner Concession Card) to be eligible to receive an energy concession.

Concession data informs us of the number of customers who access additional financial support to help pay their energy bills. Concession data should be assessed alongside other indicators, including debt levels and customers on hardship programs, because on its own the data may not represent the full extent of customer payment difficulties. To provide greater detail of customers receiving a concession, we also collect the number of hardship customers who were entitled to receive a concession (section 3.3.2) and customers who were entitled to receive a concession and were disconnected (section 3.5).

The proportion of electricity and gas customers receiving an energy concession varied across jurisdictions in 2021–22 (Figure 3.30). However, concession rates have remained relatively stable over the past several years, on a jurisdictional basis.

Once again, Tasmania had the highest proportion of customers receiving an energy concession in 2021–22 and the ACT had the lowest. This reflects that the ACT has the highest average income per household and Tasmania has the lowest (see section 2). South Australia, NSW and Queensland have a similar proportion of electricity customers receiving a concession despite South Australia having lower energy affordability.

South Australia had the lowest proportion of gas customers receiving energy concessions and Queensland had the highest.

Figure 3.30 Electricity and gas residential customers receiving an energy concession by state/jurisdiction – 2020–21

Note: Energy concessions in the ACT and South Australia cover both fuel types. Most retailers record the concession against a customer's electricity account, which explains the low proportions of gas customers receiving concessions in the ACT (effectively zero) and South Australia. In Tasmania, residential gas retailers (Aurora and Tas Gas) are licensed by the Office of the Tasmanian Economic Regulator (OTTER), rather than being authorised by the AER. As a result, these retailers are not required to provide data on retail gas customers to the AER. Data as at 30 June 2022.

Source: AER.

3.5 Disconnections and reconnections

Retailers may disconnect customers who are unable to pay their energy bills as a last resort option. Payment assistance (payment plans and hardship programs) should be offered before a disconnection, which should only happen after the strict processes in the *National Energy Retail Rules*⁶⁶ have been followed.

3.5.1 Residential electricity disconnections and reconnections increased

Historically, the rate of disconnections reflected retailers' effectiveness in helping customers manage debt while ensuring they continued to receive energy supply. It also indicated energy affordability, given that non-payment and subsequent disconnection for non-payment was the likely outcome of a customer being unable to meet their energy costs.

Since the COVID-19 pandemic and the easing of SOE requirements, disconnections have risen but not to pre-COVID-19 pandemic levels.

Electricity disconnections increased, but not to pre-COVID-19 pandemic levels

The number of residential electricity disconnections fell dramatically during the COVID-19 pandemic and the proportion of customers disconnected for non-payment continued to fall

⁶⁶ *National Energy Retail Rules*, [Part 6 De-energisation \(or disconnection\) of premises—small customers](#).

throughout 2020–21. In 2021–22 disconnections increased above the level in 2020–21 as retailers recommenced previous debt management practices (Figure 3.31). However, disconnections have not returned to pre-COVID-19 pandemic levels.

The increase in the proportion of disconnections in 2021–22 has been across all jurisdictions except NSW, which has continued to trend marginally downwards compared with last year. This was due to the stay-at-home orders in NSW that remained in place during the first half of 2021–22 and had ongoing impacts on disconnections in different parts of NSW.

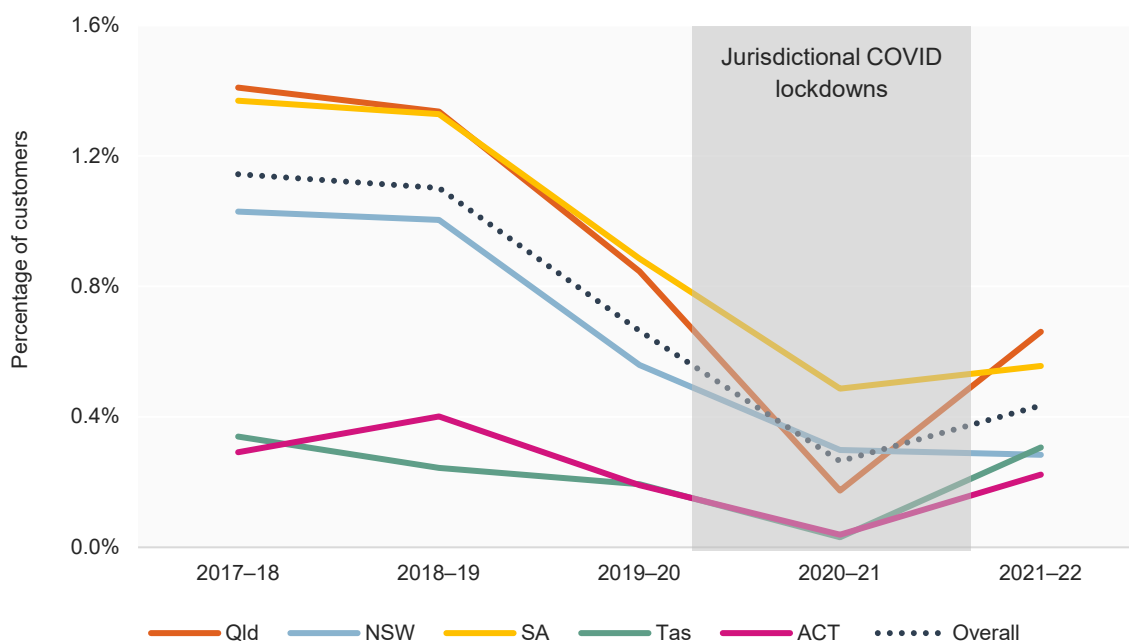
The increase in the proportion of disconnections in Queensland, the ACT, South Australia, and Tasmania largely reflected that these jurisdictions did not have any lockdowns during the year (there was a short 9 week lockdown from August to October 2021 in ACT) and that retailers had recommenced normal debt management practices.

In 2021–22 Queensland was the only jurisdiction to have a large increase in the proportion of customers disconnected. This was due to a combination of the increase in the number of disconnections made by Ergon Energy, which returned to pre-COVID-19 pandemic levels, and some Tier 2 retailers having an increase in the proportion of customers disconnected.

South Australia's disconnection rate remains high, as has often been the case over the past 5 years. This supports our finding that South Australia is one of the jurisdictions with the least affordable energy.

Tasmania and the ACT continued to have the lowest proportion of customers disconnected, but the increase in 2021–22 was due to the entry of new retailers into these jurisdictions. The overall low rate may reflect a higher degree of retail market regulation in both these jurisdictions as well as the ACT having better energy affordability.

Figure 3.31 Residential electricity disconnections by state/jurisdiction



Source: AER.

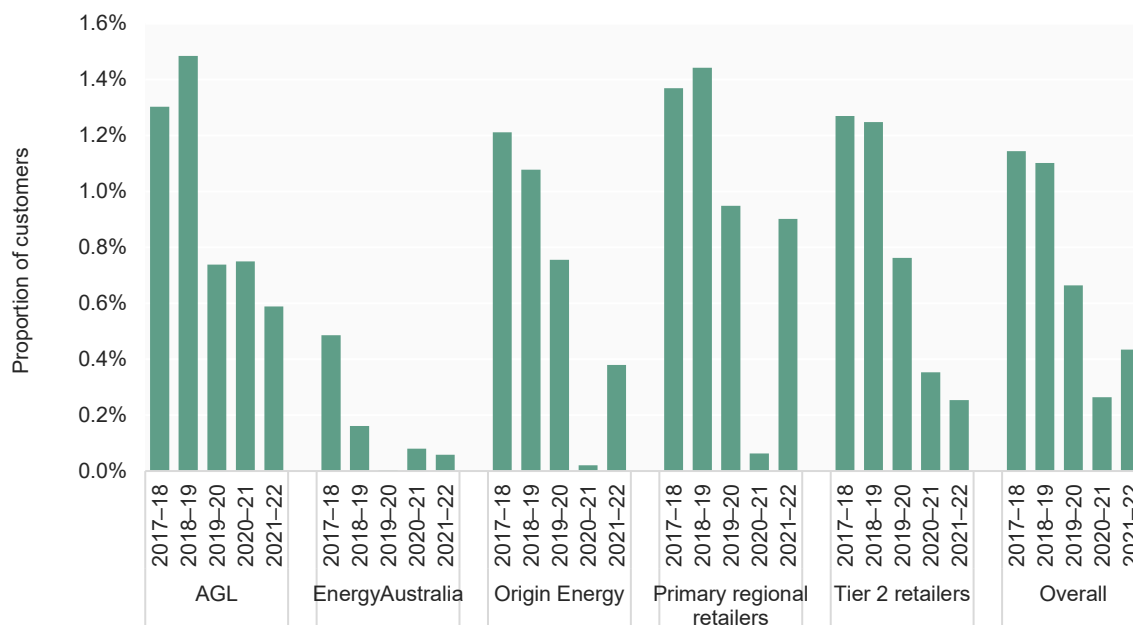
During 2021–22 AGL and Energy Australia’s disconnections were lower than in the previous year. Although Origin Energy’s disconnections was significantly higher, all 3 retailers’ disconnections remain below pre-COVID-19 pandemic levels (Figure 3.32).⁶⁷

The proportion of primary regional retailer disconnections increased to levels close to pre-COVID-19 pandemic rates, driven by Ergon Energy with an annual proportion of customers disconnected of 1.3% compared with the primary regional retailer average of 0.9%.

The majority of Tier 2 retailers’ disconnections were lower than the previous year, while the remaining Tier 2 retailers were at or marginally above 2020–21.

AGL’s and Energy Australia’s disconnections continued to remain lower in 2021–22 than in previous years and were 0.6% and 0.1%, respectively, while Origin, EnergyAustralia and the primary regional retailers each disconnected 0.4%, 0.1% and 0.9% of their customers, respectively. Tier 2 retailers disconnected nearly 0.3% of their customers.

Figure 3.32 Residential electricity disconnections by retailer

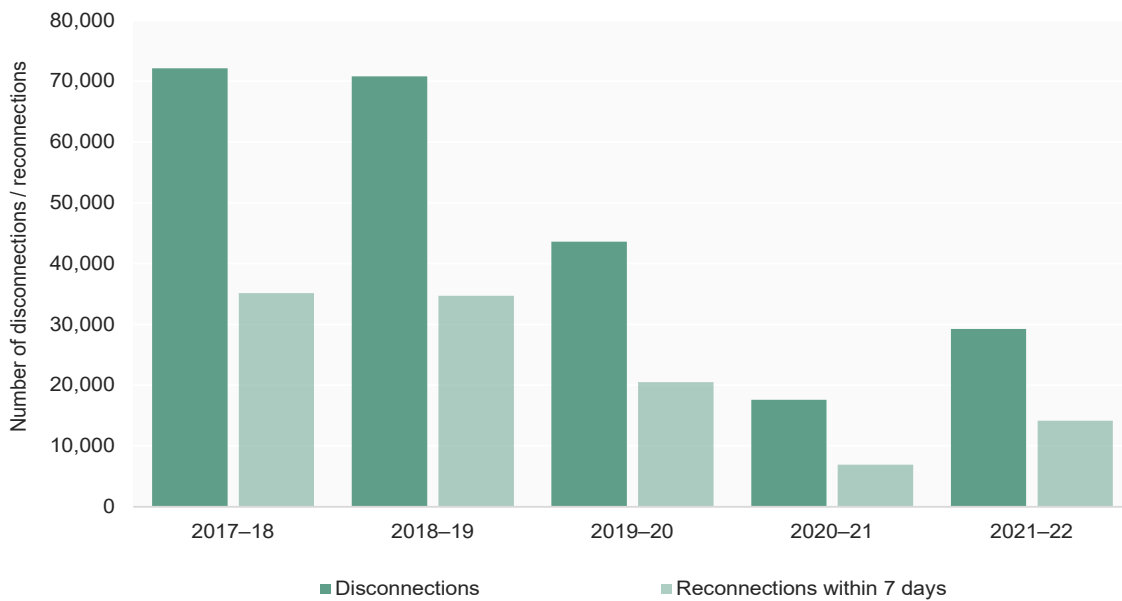


Source: AER.

Reconnections within 7 days increased

Disconnected customers may be reconnected. The AER collects data on the number of customers reconnected (by the same retailer and at the same address) within 7 days of disconnection. Historically, a little less than half of disconnected customers are reconnected within this period. In 2021–22 this ratio was at 48%, up from a low of 39% of customers being reconnected in the previous year (Figure 3.33). Timely reconnection ensures that customers are not without energy for long periods of time.

⁶⁷ EnergyAustralia paused disconnections in 2019–20 while they conducted a review of their life support customer registrations.

Figure 3.33 Residential electricity disconnections and reconnections

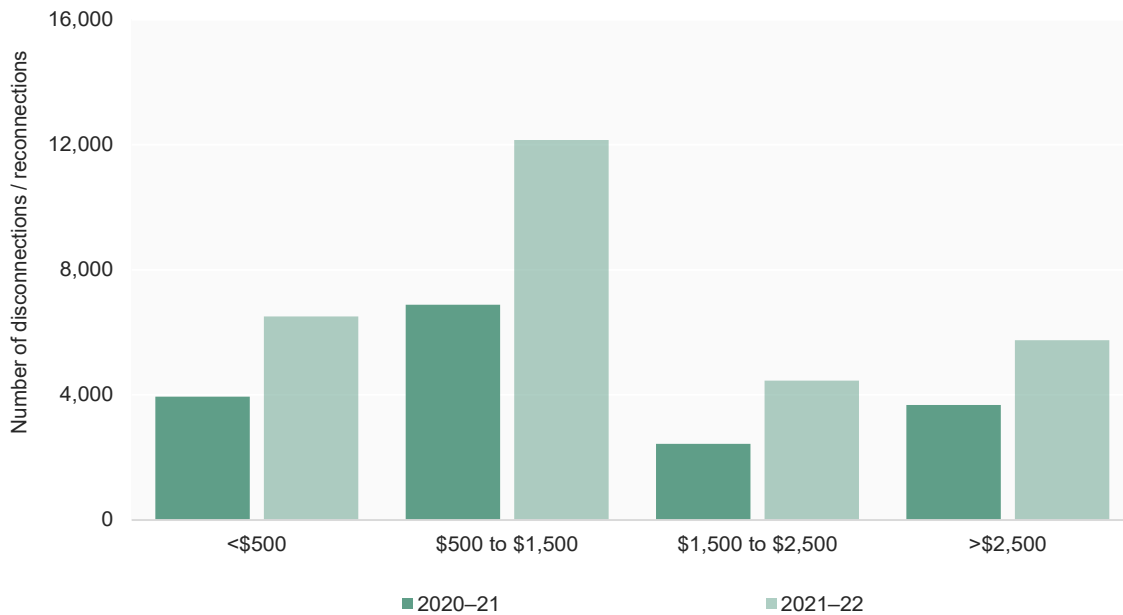
Source: AER.

Debt levels for disconnected residential electricity customers increased

The number of residential electricity customers with a debt at the time of disconnection increased significantly, showing a 70% increase to 28,865 customers being disconnected with debt compared with the previous year (Figure 3.34).

During 2021–22, 42% of those customers with debt at the time of disconnection had debt levels of between \$500 and \$1,500, which is a similar proportion to last year. The proportion of customers with debt greater than \$1,500 was 35%, up from 24% pre-COVID-19 pandemic.

This further reflects the general increasing debt trend noted throughout this section, including higher average debt, higher debt on entry to hardship programs and higher average hardship debt.

Figure 3.34 Residential electricity customers' debt at disconnection

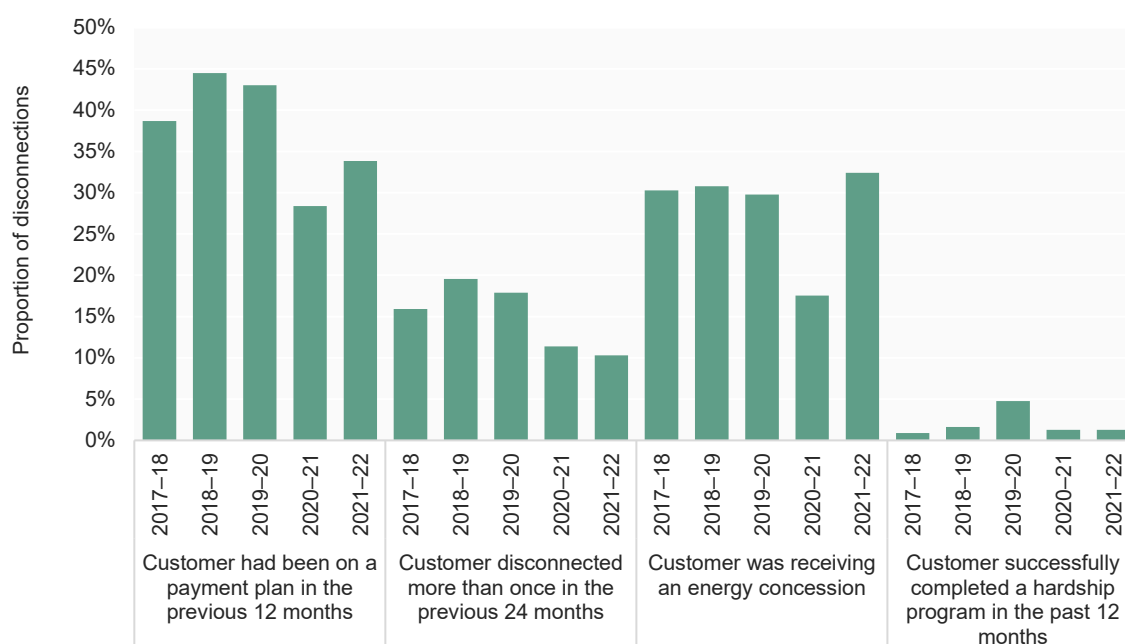
Source: AER.

Customer profiles for disconnected electricity customers hold steady

Typically, around 35% to 40% of disconnected customers have had two payment plans cancelled by their retailer in the previous 12 months before disconnection. In 2020–21 this decreased to 28% but increased to 34% in 2021–22, returning to similar pre COVID-12 pandemic levels.

In 2021–22 there was an increase in the proportion of customers disconnected while receiving an energy concession to 32%, similar to the 5-year trend of 30%. Customers who had recently been on a hardship program in the previous 12 months remains at a similar level as in the previous year (Figure 3.35).

Previously, a large proportion of customers had engaged with forms of payment assistance but were still eventually disconnected. During 2021–22 the number of customers that received recent payment assistance remained relatively steady.

Figure 3.35 Residential electricity disconnection by customer profile

Source: AER.

3.5.2 Gas disconnections and reconnections increased

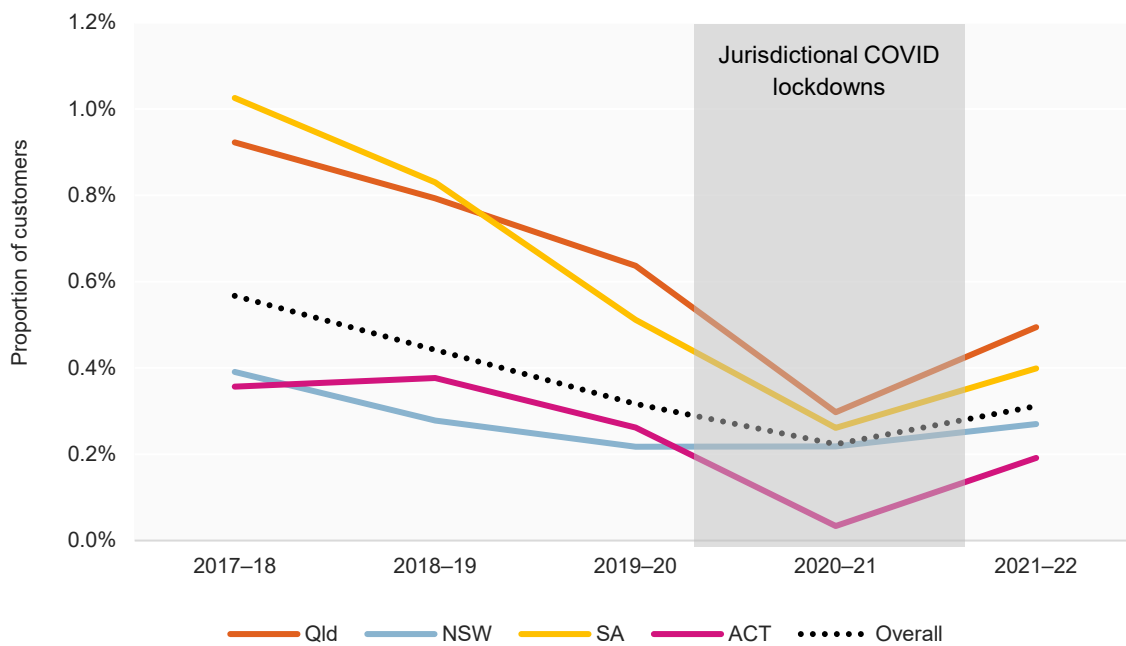
Gas disconnections and reconnection trends historically are similar to those for electricity.

Gas disconnections increased in all jurisdictions

Gas disconnection trends were similar to those in electricity, where residential gas disconnections fell during the COVID-19 pandemic but increased in 2021–22 (Figure 3.36). All jurisdictions had increased gas disconnections compared with the prior year but have not returned to pre-COVID-19 pandemic levels, except in NSW.

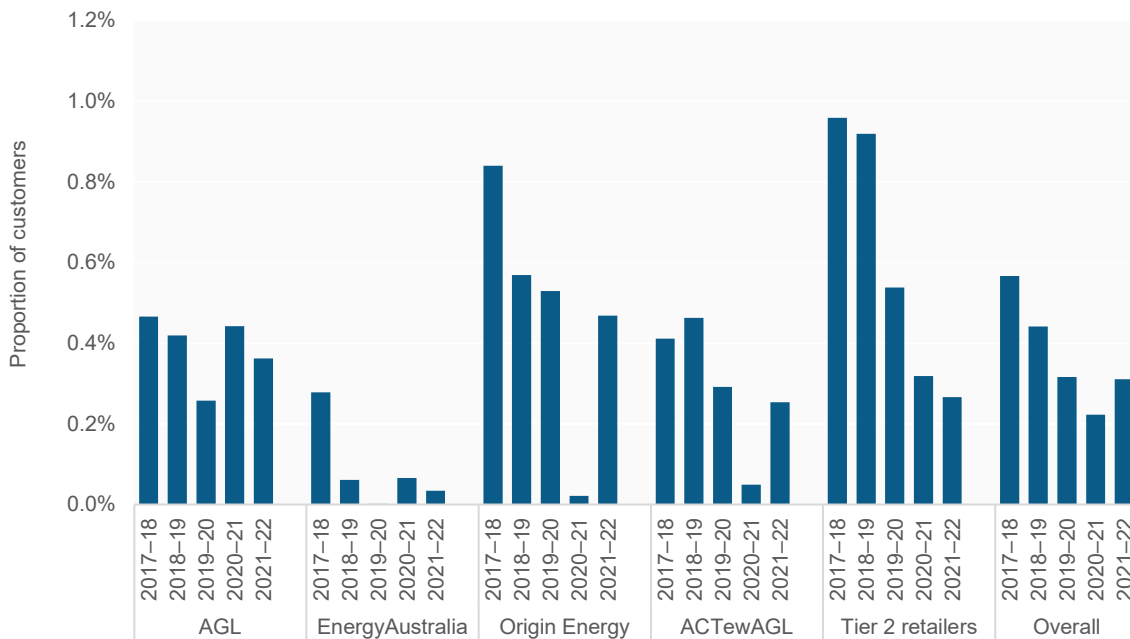
The proportion of gas disconnections in Queensland and South Australia remained higher than the national average, driven by Tier 1 retailer disconnections in those jurisdictions. This also reflects lower energy affordability in South Australia and that gas is mostly a secondary fuel in both these jurisdictions.

Overall, residential gas disconnections were closer to the pre-COVID-19 pandemic levels of 2018–19 than electricity disconnections over the same period.

Figure 3.36 Residential gas disconnections by state/jurisdiction

Source: AER.

As was the case with electricity, AGL and EnergyAustralia's gas disconnections were lower than in the previous year, while Origin Energy and ActewAGL's disconnections have trended back towards pre-COVID-19 pandemic levels (Figure 3.37). Tier 2 retailers' proportion of gas disconnections continues to trend downwards, noting that there are only a small number of Tier 2 gas retailers.

Figure 3.37 Residential gas disconnections by retailer

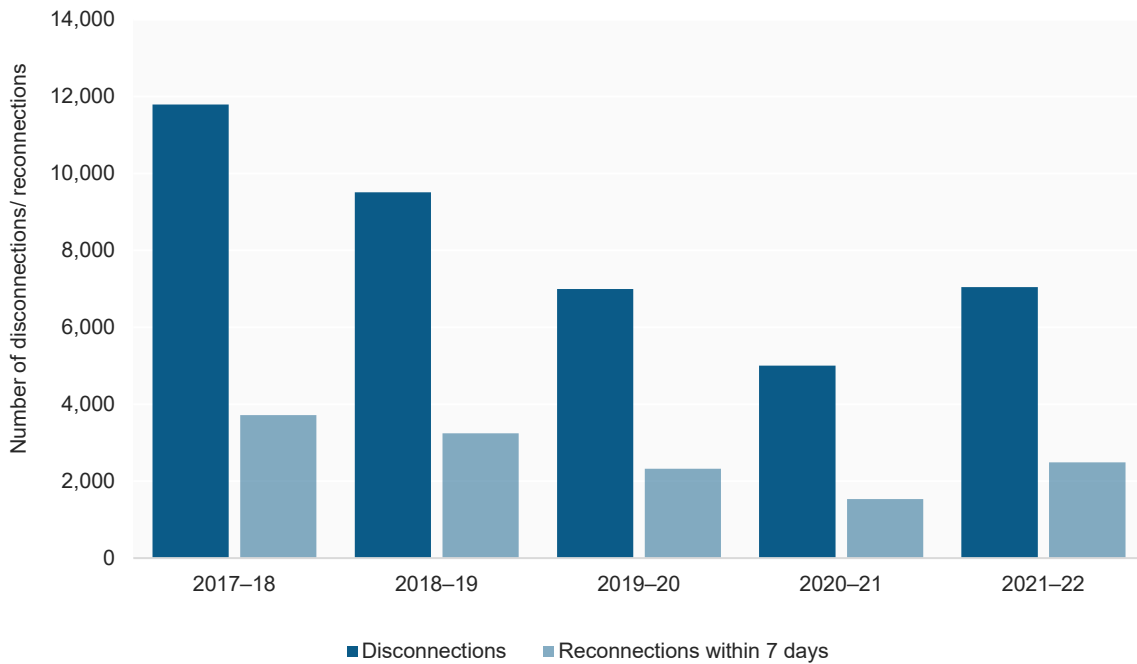
Note: In Tasmania, residential gas retailers (Aurora and Tas Gas) are licensed by the Office of the Tasmanian Economic Regulator (OTTER), rather than being authorised by the AER, and Queensland's primary regional retailer Ergon Energy does not sell reticulated gas. As a result, ActewAGL is the only primary regional retailer that is required to provide data on retail gas customers to the AER.

Source: AER.

Reconnections within 7 days remains steady

The proportion of gas customers reconnected remained lower than electricity. This likely reflects that gas is often considered a secondary fuel (Figure 3.38).

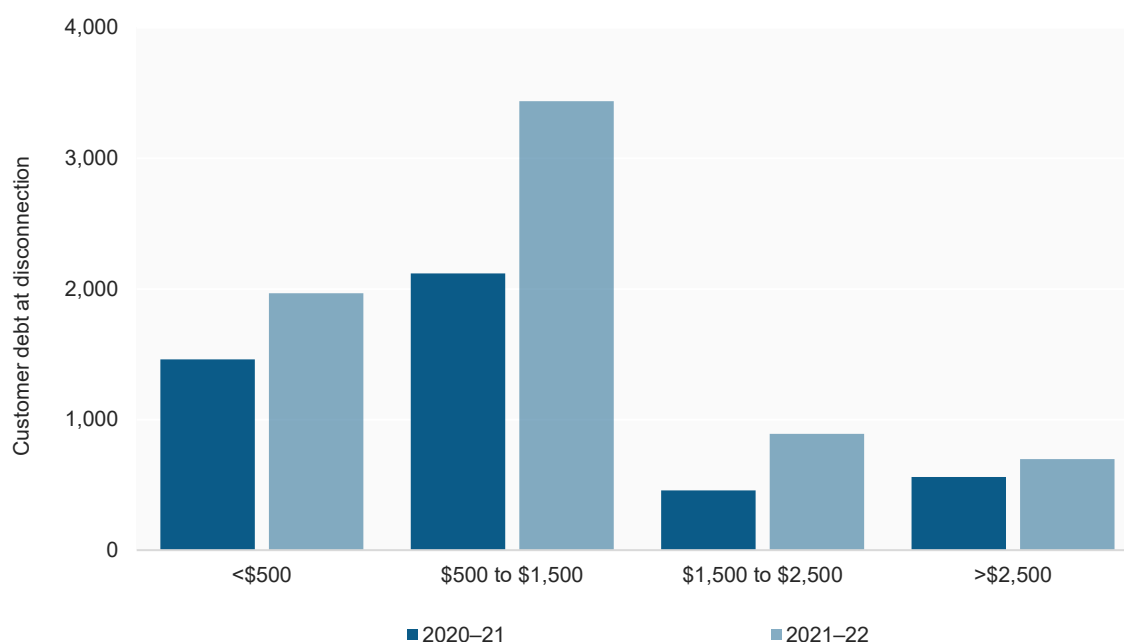
Typically, about one-third of disconnected gas customers are reconnected within 7 days by the same retailer and at the same address. This ratio has held steady over the 5-year trend, despite the higher number of disconnections in 2021–22.

Figure 3.38 Residential gas disconnections and reconnections

Source: AER.

Gas customers are accumulating more debt before disconnection

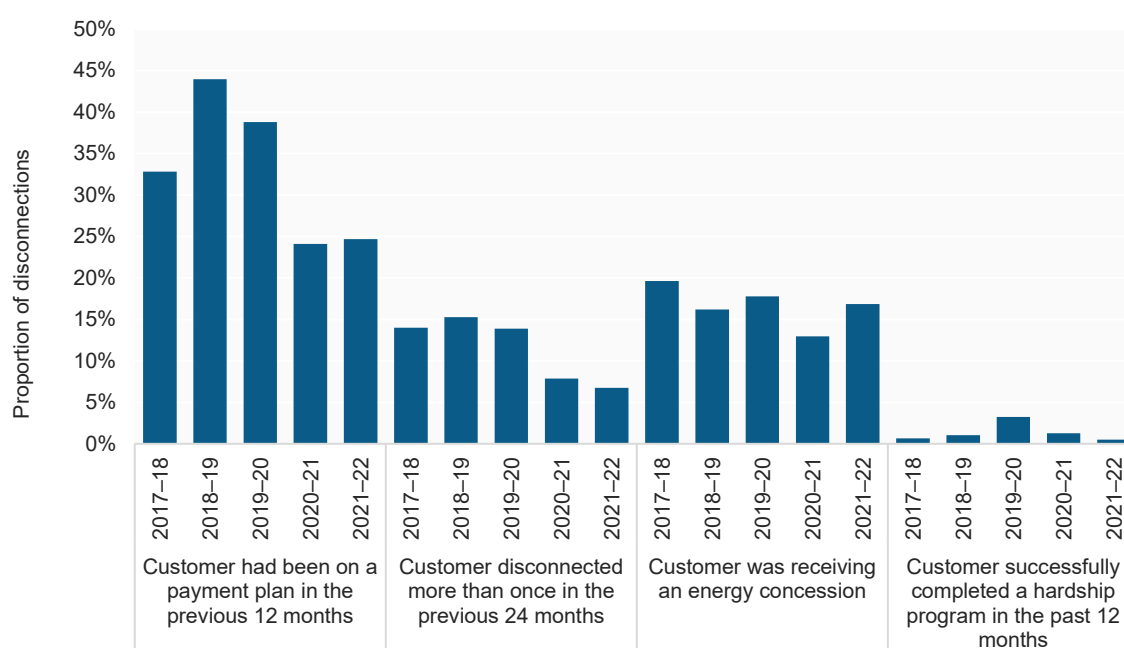
Before the COVID-19 pandemic, the most common amount of debt at the time of disconnection was between \$500 and \$1,500. This remains true in 2021–22, with 49% of disconnected gas customers with debt in this bracket, up from 46% in the previous year (Figure 3.39). The increase for this bracket appears to be a shift from the less than \$500 bracket, with a decrease in the proportion of disconnected customers having less than \$500 debt to 28% from 32% in 2020–21.

Figure 3.39 Residential gas customers' debt at disconnection

Source: AER.

Customer profiles for disconnected gas customers changed slightly

In 2021–22 the proportion of disconnected gas customers who were on a payment plan in the previous 12 months or had been disconnected more than once in the previous 24 months remained steady compared with 2020–21 (Figure 3.40). The number of customers receiving an energy concession when disconnected increased in 2021–22, while there was a reduction in disconnections for gas customers who had successfully completed a hardship program in the past 12 months.

Figure 3.40 Residential gas disconnection by customer profile

Source: AER.

3.5.3 Small business disconnections increasing but below pre-COVID-19 pandemic levels

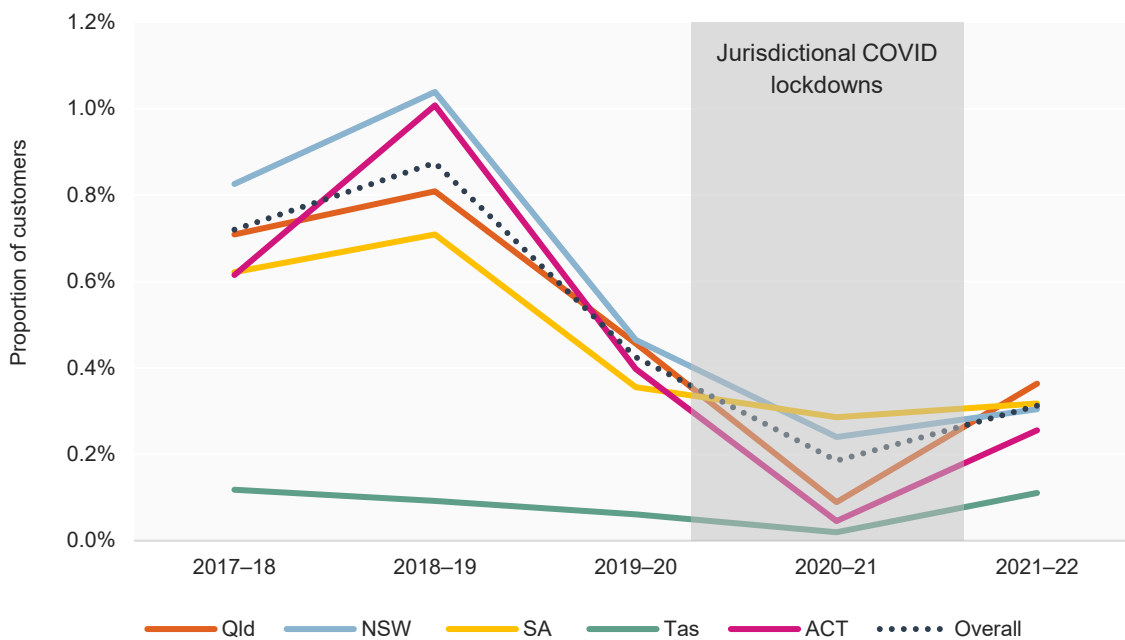
The proportion of small business customers disconnected has broadly mirrored residential trends in 2021–22, for both electricity and gas.

Since the COVID-19 pandemic and the lifting of AER's *SoE* restrictions, small business electricity and gas disconnections have started increasing but both remain below pre-COVID-19 pandemic levels.

Disconnections in the small business electricity market peaked in 2018–19 before dropping in 2019–20 and 2020–21 (Figure 3.41). The proportion of South Australian small business electricity customers disconnected did not fall as much as in Queensland, NSW, and the ACT. Queensland now has the highest small business electricity disconnections across the jurisdictions.

The proportion of small business electricity disconnections in Tasmania continued to be the lowest despite an increase due to Aurora recommencing previous debt management practices.

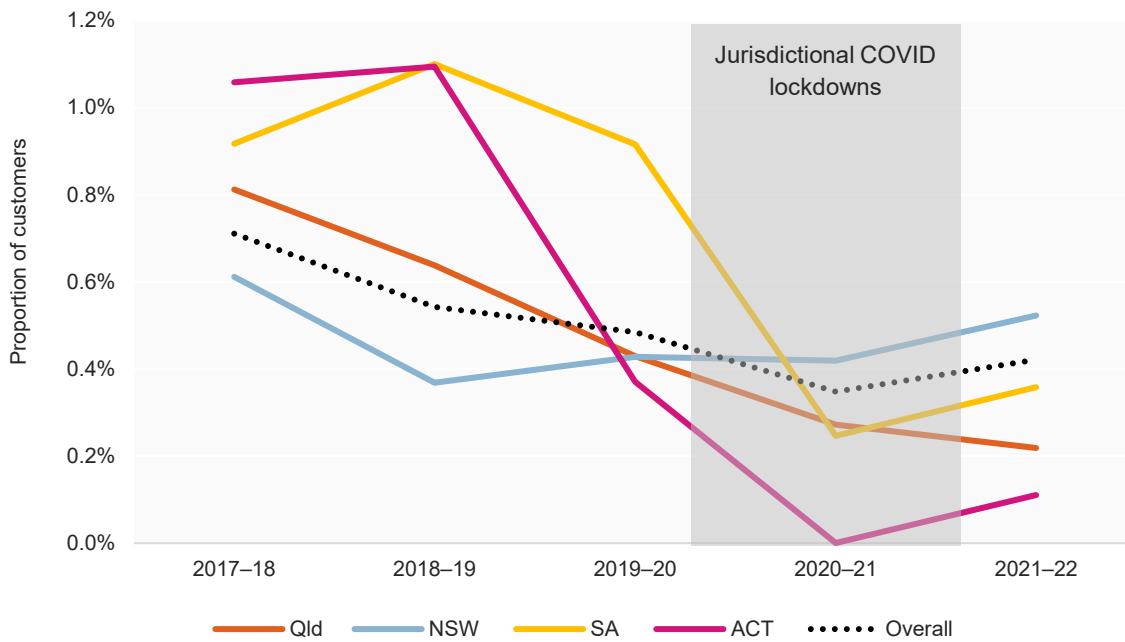
Figure 3.41 Small business electricity disconnections by state/jurisdiction



Source: AER.

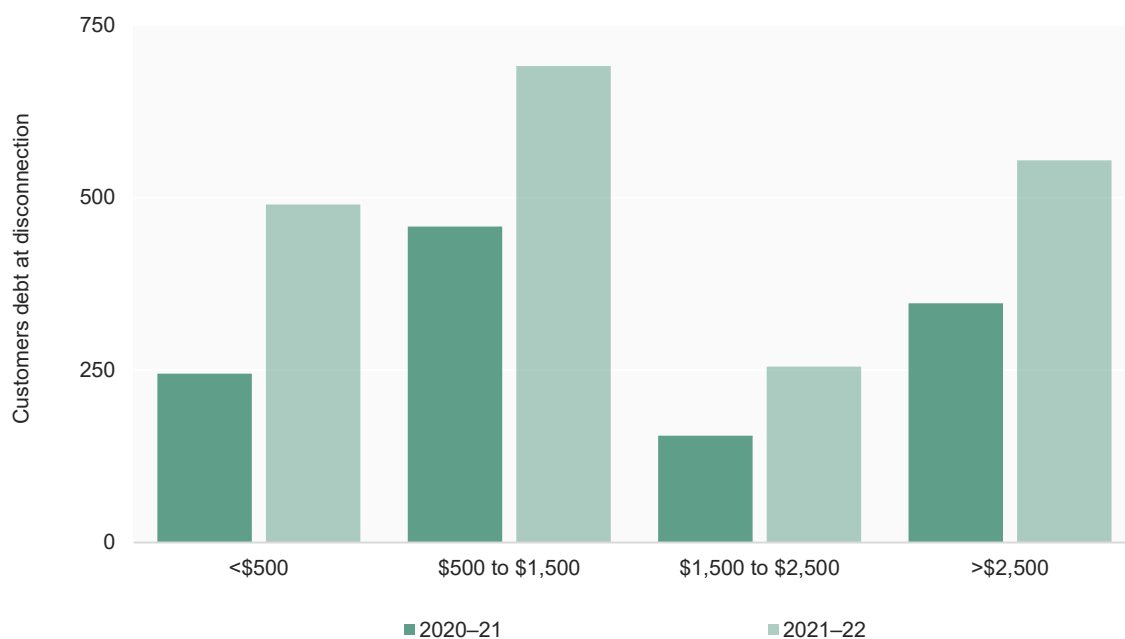
Small business gas is a very small market segment, with only 357 recorded small business disconnections in 2021–22. This was an increase of 22% from 294 in 2020–21 (Figure 3.42).

All jurisdictions except Queensland had an increase in the proportion of small business gas customers disconnected. NSW had the largest number of disconnections of 277, representing 78% of the national total of disconnections. EnergyAustralia reported disconnections above pre-COVID-19 pandemic levels.

Figure 3.42 Small business gas disconnections by state/jurisdiction

Source: AER.

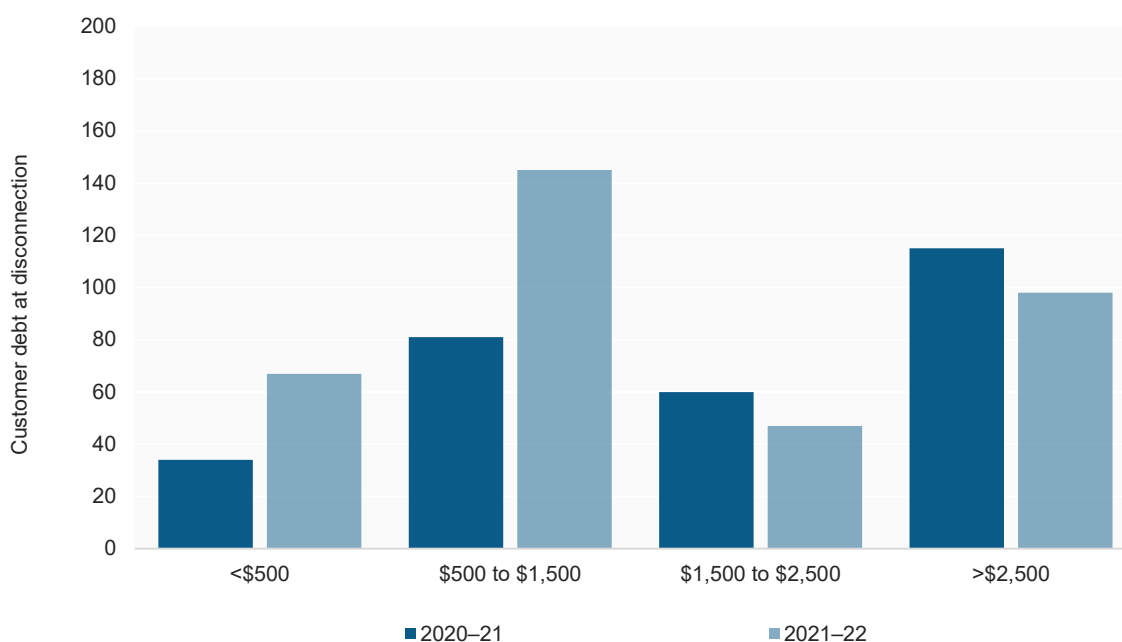
The number of small business electricity customers with debt on disconnection increased by 65% to 1,990 customers over the last year (Figure 3.43). In 2021–22 the key increase was in the number of small business customers with over \$1,500 of debt, which now represents 41% of those small businesses with debt on disconnection and is about the same level as last year. The number of small business customers with debt on disconnection in the less than \$500 and \$500 to \$1,500 debt brackets increased to a combined 59%, up marginally from 58% compared with 2020–21.

Figure 3.43 Small business electricity customers' debt at disconnection

Source: AER.

For the number of small business gas customers with debt on disconnection, there was also an increase of 23% to 357 customers over the last year (Figure 3.44). However, for this group, there was a reduction in the number of customers with debt on disconnection greater than \$1,500 from 60% to 41%. The reduction in this bracket was offset by increases in the less than \$500 and \$500 to \$1,500 brackets. Combined, these 2 brackets now represent 59% of small business gas customers with debt on disconnection, up from 40% in 2020–21.

Figure 3.44 Small business gas customers' debt at disconnection



Source: AER.

We encourage retailers to work with their small business customers to avoid disconnection including through using the AER's [Sustainable Payment Plan Framework](#),⁶⁸ which includes retailer guidance on how to engage with small businesses when tailoring payment plans.

3.6 Credit collection and credit defaults

3.6.1 Credit collections increased overall but varied across jurisdictions

Retailers may refer customers to a credit collection agency for debt recovery when the retailer cannot recover a customer's debt. This is the final stage for a customer facing payment difficulties, where the customer may hold a current and active account or a closed account with retailer debt. Commonly, customers are no longer being billed by the retailer.

[Towards energy equity – a strategy for an inclusive energy market](#)⁶⁹ also considers the risks and costs retailers face in supporting customers, including the risks and costs associated with credit collection activities.

⁶⁸ See more information on the [Sustainable Payment Plan Framework](#).

⁶⁹ AER, [Towards energy equity – a strategy for an inclusive energy market](#), AER, 2022.

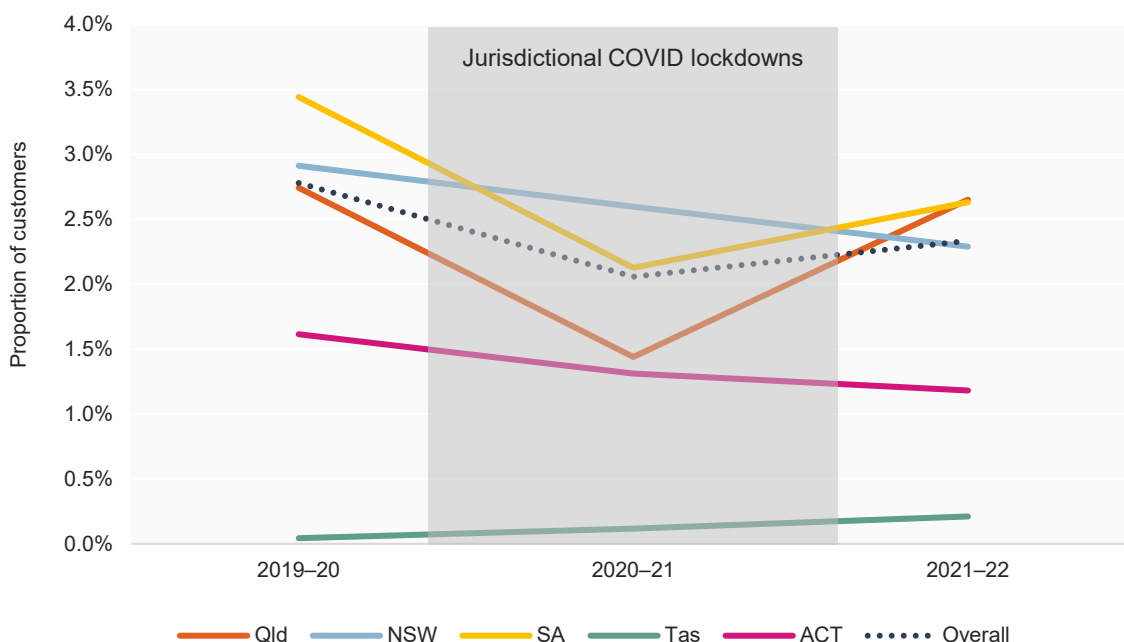
Restrictions imposed to limit the spread of COVID-19, which resulted in the closure of businesses and increased unemployment, resulted in a decrease in the number of customers referred by retailers to credit collection agencies during 2020–21.

Since restrictions were lifted, the proportion of customers referred to credit collection agencies has varied across jurisdictions in 2021–22. All jurisdictions except Queensland remain below pre-COVID-19 pandemic levels (Figure 3.45).

Historically, South Australia has had the highest proportion of electricity customers referred to credit collection agencies. However, during 2021–22 Queensland and South Australia both reported increases in the number and proportion of residential electricity customers referred to a credit collection agency and are marginally above the overall average. The increases in these jurisdictions were driven by increased referrals from larger Tier 2 retailers, primarily due to Alinta Energy, which ceased referral during 2020–21 and recommenced referrals during 2021–22.

In contrast, Tasmania has historically recorded the lowest proportion of residential customers referred to credit collection agencies. This is because Aurora, Tasmania's largest retailer, does not refer customers to credit collection agencies and manages all debt issues in-house. However, Tasmania experienced minor increases in 2020–21 and 2021–22, due to credit collection activities by retailers that have recently entered the Tasmanian market.

Figure 3.45 Residential electricity customers referred to credit collection agencies by state/jurisdiction



Note: The AER does not collect credit collection data for small businesses. Credit collection indicators have only been reported by retailers for residential customers since September 2019, resulting in 3 years of data. Data for previous years is unavailable for this indicator.

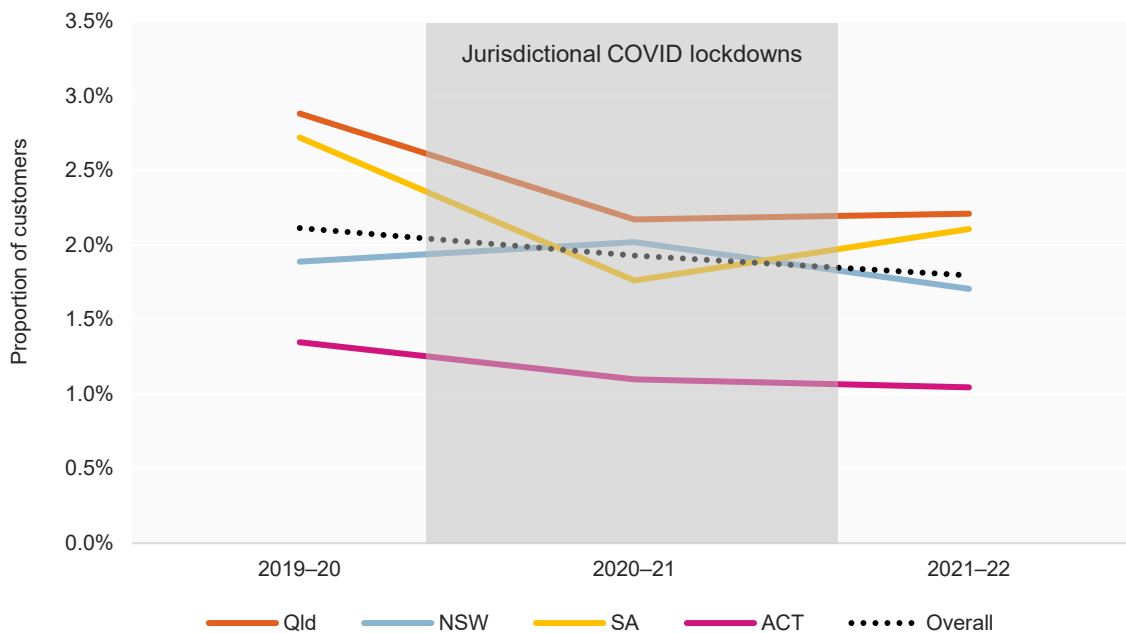
Source: AER.

The proportion of residential gas customers referred to credit collection agencies has seen an overall downward trend since the peak during the COVID-19 pandemic in 2020–21 (Figure 3.46). South Australia has reported an increase in customers reported to credit

collection agencies, driven by the larger Tier 2 retailers (primarily Alinta Energy) recommencing referrals in 2021–22.

The proportion of customers referred to a credit collection agency in NSW and the ACT decreased slightly compared with 2020–21. This was due to a reduction in Tier 1 retailers' referrals to a credit collection agency but was offset by an increase in the proportion of Tier 2 retailers' referral of customers to a credit collection agency.

Figure 3.46 Residential gas customers referred to credit collection agencies by state/jurisdiction



Note: The AER does not collect credit collection data for small businesses. Credit collection indicators have only been reported by retailers for residential customers since September 2019, resulting in 3 years of data. Data for previous years is unavailable for this indicator.

Source: AER.

3.6.2 Credit defaults increased but not to pre-COVID-19 pandemic levels

Credit defaults refer to current or previous residential customers who have had a credit default applied against their name for debt associated with the retailer. This is after the customer has been referred to a credit collection agency, or an internal credit collection process, for the purposes of debt recovery.

Credit defaults can have a greater negative effect on a customer than solely being referred to a credit collection agency. A credit default applied against a customer will remain on record for 5 years and is viewed unfavourably by many credit providers because it shows that the customer has failed to pay off debt in the past, increasing the level of risk associated with that customer as an applicant.⁷⁰

⁷⁰ Office of the Australian Information Commissioner (OAIC), [What stays on a credit report?](#), OAIC website, accessed 28 November 2022.

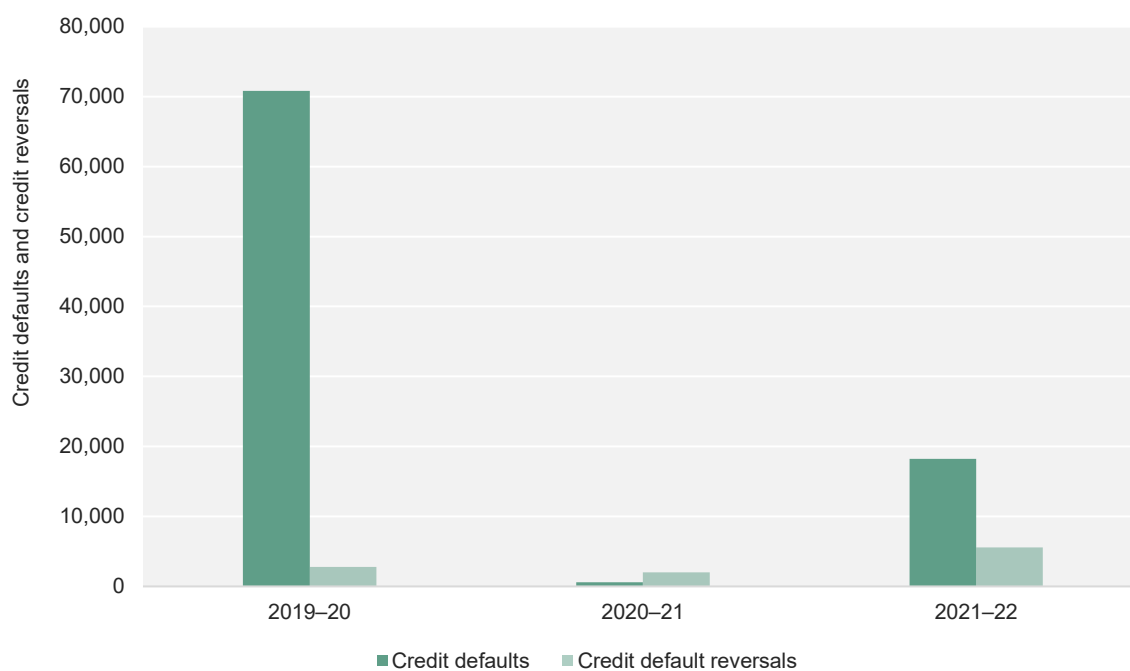
In addition, a credit default may mean that a customer cannot access low-cost market contracts and may result in the customer paying more (compounding their hardship and payment difficulties) and being placed on a standing energy contract. It may also impact a customer's financial borrowing power and other services that require a good credit history outside of the energy market.

Before the COVID-19 pandemic, the level of credit defaulted residential electricity customers peaked in Q4 2018–19 at 35,221. There were then minimal credit defaulted customers in the second half of 2019–20 and in 2020–21 (coinciding with the *SoE* requirements to defer all credit defaults) (Figure 3.47).

Compared with overall credit referrals, credit defaults increased during 2021–22 but not to pre-COVID-19 pandemic levels. This may suggest that retailers are continuing to protect customers experiencing financial difficulty against credit defaults.

The number of residential electricity customers who had a credit default reversed remained relatively steady during 2019–20 and 2020–21, but in 2021–22 there was a sharp increase in credit defaults (to 5,563). This increase was driven by ActewAGL having over 4,000 credit reversals during 2021–22 due to an error on customer letters re legal references.

Figure 3.47 Residential electricity customers credit defaults and credit default reversals



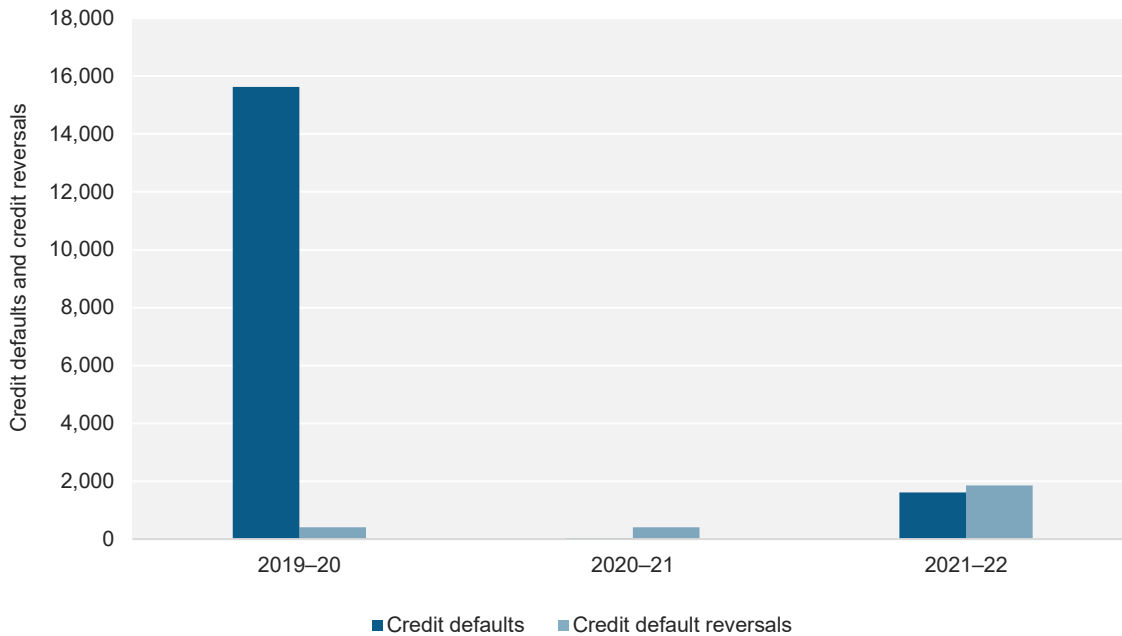
Note: The AER does not collect credit default or credit reversal data for small businesses. Credit default and credit reversal indicators have only been reported by retailers for residential customers since September 2019, resulting in 3 years of data. Data for previous years is unavailable for this indicator.

Source: AER.

Gas customers followed a similar trend to electricity customers for both credit defaults and credit reversals. During the second half of 2019–20 and in 2020–21 both credit metrics were significantly lower (Figure 3.48).

Gas credit reversals have remained relatively steady over the past 2 years (at around 400). However, during 2021–22 there was a large increase in credit reversals (1,850), which was associated with ActewAGL having over 1,500 credit reversals due to an error on customer letters re legal references.

Figure 3.48 Residential gas customers credit defaults and credit default reversals



Note: The AER does not collect credit default or credit reversal data for small businesses. Credit default and credit reversal indicators have only been reported by retailers for residential customers since September 2019, resulting in 3 years of data. Data for previous years is unavailable for this indicator.

Source: AER.

4 Customer service

Key findings

- Customer complaints to retailers fell by between 9% and 24% across most jurisdictions in 2021–22 compared with 2020–21, continuing the trend of declining complaints reported.
- Billing complaints account for over half of all complaints made to retailers and jurisdictional ombudsman.
- Nationally, there were no major changes to call centre responsiveness indicators in 2021–22.
- Retailers saw a decrease in 2 indicators – calls taken within 30 seconds and calls abandoned before being answered.

Customers may contact their retailer for various reasons, including billing enquiries, payment assistance, seeking better deals or to lodge a complaint. A high level of retailer customer service should help give customers confidence that their needs are being considered and met where possible. It may also be a deciding factor in which retailer they choose to take up a plan with.

To assess retailer customer service, we examine 2 groups of indicators focused on customer complaints and call centre responsiveness.

Retailers report on the number and type of complaints received as well as how quickly they respond to enquiries or complaints each quarter.

Complaints data is categorised as:

- billing – includes complaints about prices, billing errors, payment arrangements and debt recovery practices
- energy marketing – includes complaints about sales practices, advertising, contract terms and misleading conduct
- customer transfer – includes complaints about timeliness of transfer, disruption of supply due to transfer and billing problems directly associated with a transfer
- smart meters – includes all complaints related to metering contestability
- other – includes any complaints not covered by the categories above.

Complaints data is also collected from all relevant jurisdictional ombudsmen. This data is useful for looking at the number of complaints and the type of complaints that were not able to be promptly resolved by a retailer and led to a customer engaging with an ombudsman for further assistance.

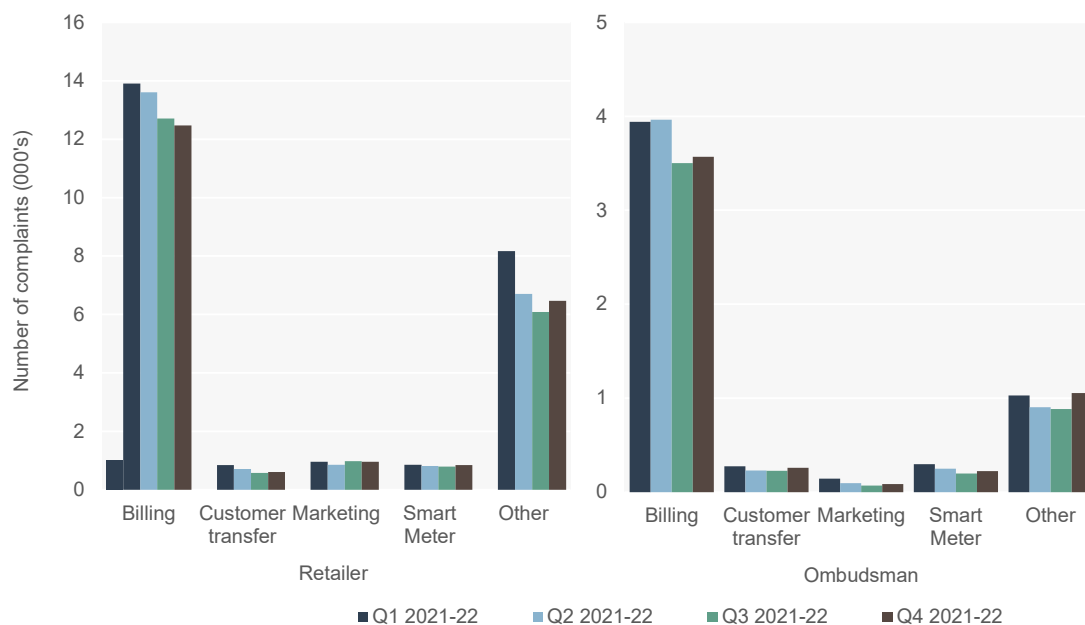
4.1 Complaints

From 2020–21 to 2021–22 the total number of complaints to retailers fell by between 9% and 25% across Queensland, NSW, South Australia, and Tasmania (Figure 4.1). This trend of a decreasing number of complaints has been occurring for several years. The ACT was the

only jurisdiction that had a rise in complaints (28%) but had by far the lowest number of total complaints when compared with other jurisdictions. Combined across all relevant jurisdictions, the proportion of customers making complaints has decreased from 3.2% of total customers in 2017–18 to 1.3% in 2021–22. For each year from 2017–18 to 2021–22, billing accounted for more than half of all complaints made to retailers.

As billing continued to be the focus of complaints to retailers from residential customers in 2021–22, the trend also flowed through to complaints received by ombudsmen, with billing representing around 60% of all complaints received every quarter in 2021–22.

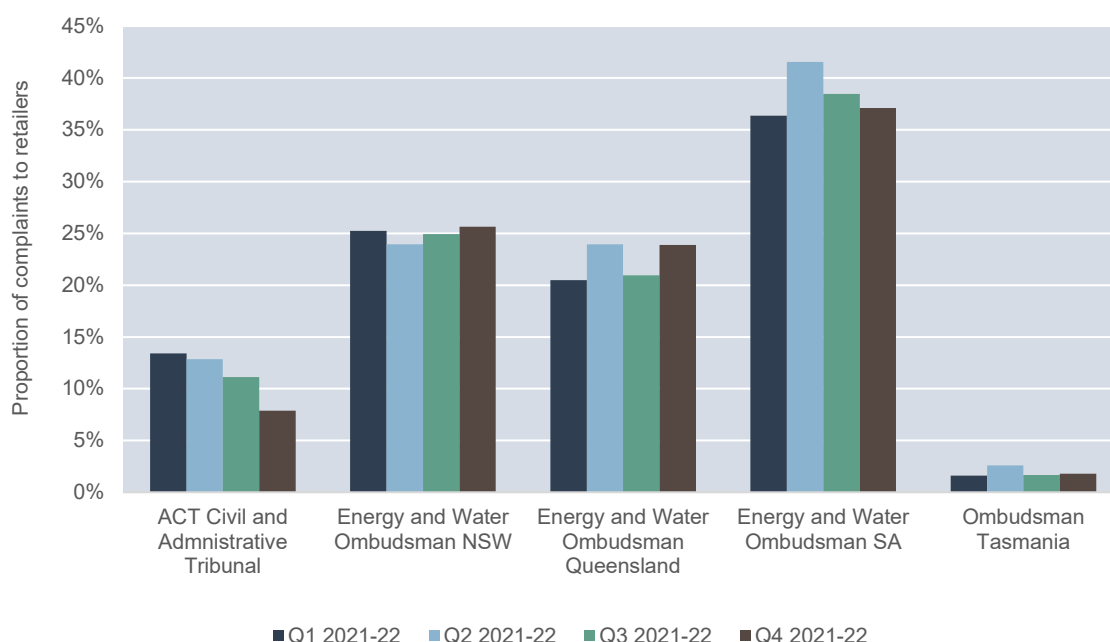
Figure 4.1 Customer complaints by complaint category



Note: Includes customers in Queensland, NSW, the ACT, South Australia, and Tasmania.

Source: AER and Ombudsman data

Data received from each jurisdictional ombudsman highlights the number of complaints made by customers that were unable to be resolved by a retailer and required further assistance (Figure 4.2). When compared with total complaints made to retailers in each jurisdiction, the ombudsman data highlights that, for most jurisdictions, customers seek further assistance for around 10% to 25% of all complaints made to retailers. South Australia saw the highest proportion of customers that required further assistance with around 35% to 40% of complaints progressed to the ombudsman. Tasmania varies significantly from the other jurisdictions with only 1% to 3% of all complaints having been progressed to the ombudsman. This is because Tasmania had a high level of first call resolution of customer complaints, resulting in a low number of complaints referred to the ombudsman.

Figure 4.2 Ombudsman complaints compared to residential complaints

Note: Includes customers in Queensland, NSW, the ACT, South Australia, and Tasmania.
Source: AER and Ombudsman data.

We compare the number of complaints to retailers with the number progressed by customers to the relevant ombudsman, which provides an indication of a retailer's service performance across the previous 2 financial years (Table 4.1).

A high proportion of escalations to an ombudsman indicates a retailer may not be resolving complaints effectively; conversely, a low proportion of complaints escalated to an ombudsman suggests a retailer may have effective dispute resolution processes.

Overall, the number of complaints raised directly with retailers in 2021–22 reduced by 16% and the number of complaints raised with ombudsmen in 2021–22 decreased by 29% compared with 2020–21.

Complaints made to ActewAGL increased by 46% in 2021–22, but they continue to have the lowest total number of complaints of all major retailers.

Complaints made to AGL dropped by 37% in 2021–22. Despite this, 31% of all complaints made to AGL were progressed to an ombudsman, the highest of all major retailers.

Across the industry, around 1% of customers complain to their retailer and 15% of these complaints are referred to an ombudsman for assistance. However, the range of outcomes across retailers is broad.

Table 4.1 Complaints to retailers and ombudsman

Retailer	Complaints to the retailer		Complaints as a % of customers	Complaints to the ombudsman		% of retailer complaints
	2020–21	2021–22	2021–22	2020–21	2021–22	2021–22
Major retailers						
ActewAGL	1,035	1,515	1%	237	170	11%
AGL	15,218	9,660	0%	4,382	2,999	31%
Aurora Energy	9,908	8,950	3%	123	0	0%
EnergyAustralia	17,696	18,615	1%	2,676	2,739	15%
Ergon Energy	3,078	3,663	1%	376	37	1%
Origin Energy	27,189	21,238	1%	5,981	3,569	17%
Tier 2 retailers						
1st Energy	731	832	3%	159	121	15%
Alinta Energy	9,620	6,090	1%	1,207	906	15%
Altogether Group	202	126	1%	0	5	4%
amaysim Energy	1,018	0	0%	369	0	0%
Amber Electric	0	54	1%	0	14	26%
Apex Energy	1	0	0%	0	0	0%
Arc Energy	229	57	1%	86	42	74%
Blue NRG	850	197	2%	47	51	26%
Bright Spark Power	0	1	50%	0	0	0%
CleanPeak Energy	4	0	0%	2	0	0%
CovaU	79	988	4%	55	147	15%
CPE Mascot	9	27	6%	0	0	0%
Diamond Energy	22	19	0%	29	11	58%
Discover Energy	187	232	2%	1	21	9%
Dodo Power & Gas	1,359	1,267	2%	377	357	28%
Electricity in a Box	1	22	26%	2	2	9%
Elysian Energy	6	76	2%	6	91	120%
Energy Locals	564	412	1%	196	197	48%
Enova Energy	114	83	1%	18	11	13%
Evergy	18	14	1%	7	19	136%
Future X Power	78	110	13%	17	17	15%
GEE Power & Gas	0	4	1%	0	10	250%
GloBird Energy	36	125	0%	14	32	26%
GlowPower	56	19	54%	1	16	84%
Humenergy	114	100	9%	41	10	10%
Locality Planning Energy	50	54	0%	27	5	9%

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Retailer	Complaints to the retailer		Complaints as a % of customers	Complaints to the ombudsman		% of retailer complaints
	2020–21	2021–22	2021–22	2020–21	2021–22	2021–22
Lumo Energy	1,693	1,625	2%	232	150	9%
Metered Energy	117	179	1%	0	1	1%
Mojo Power	423	1,117	15%	48	23	2%
Momentum Energy	1,218	915	2%	127	102	11%
Nectr Energy	177	125	1%	14	25	20%
Next Business Energy	51	76	1%	16	7	9%
OC Energy	0	0	0%	2	0	0%
OVO Energy	125	159	3%	14	10	6%
People Energy	33	25	5%	4	0	0%
Pooled Energy	161	123	8%	3	9	7%
Power Club	99	107	14%	23	18	17%
Powerdirect	762	319	1%	152	106	33%
PowerHub	2	10	2%	0	0	0%
Powershop	404	252	0%	83	48	19%
Qenergy	216	257	3%	61	10	4%
Radian Energy	1	12	5%	0	3	25%
Real Utilities	2	1	0%	3	0	0%
ReAmped Energy	227	218	3%	115	162	74%
Red Energy	12,793	11,453	2%	563	523	5%
Savant Energy	14	26	1%	4	8	31%
Shell Energy	3	0	0%	0	6	0%
Simply Energy	5,033	3,706	2%	1,474	928	25%
Smart Energy	0	16	5%	0	5	31%
Social Energy	0	8	3%	0	7	88%
Sumo Power	207	219	1%	92	162	74%
Tango Energy	32	49	0%	5	27	55%
The Embedded Networks Company	2	7	1%	11	0	0%
Winenergy	120	61	1%	75	42	69%
National total	113,387	95,615	1%	19,557	13,981	15%

Notes: Proportional figures have been rounded to the nearest whole number. Ombudsmen staff may raise multiple complaints in their complaint-handling database to effectively manage each issue or element of a customer's complaint. As such, these numbers may not align with total complaint numbers reported by retailers. Complaint-counting methodology may vary by ombudsman, which can lead to variances between retailers based on the jurisdictions in which their customer base is located. Data as at 30 June each year.

Source: The ACT Civil and Administrative Tribunal, Energy and Water Ombudsman NSW, Energy and Water Ombudsman Queensland, Energy and Water Ombudsman SA, Energy and Water Ombudsman Tasmania; AER.

4.2 Call centre responsiveness

We use a rating system to provide an overview of retailers' performance in relation to our call centre responsiveness indicators (Table 4.2).

Table 4.2 Retailer call centre responsiveness rating system

Indicator	Best	Within range	Poor
Calls taken within 30 seconds (%)	80% or more	79% to 51% range	50% or less
Average wait time (sec)	30 secs or less	31 to 59 range	60 secs or more
Calls abandoned before answer (%)	5% or less	6% to 9% range	10% or more

The table groups retailers by:

- major retailers – includes Tier 1 retailers (AGL, Origin Energy and EnergyAustralia) and primary regional retailers (ActewAGL, Aurora Energy and Ergon Energy)
- Tier 2 retailers – all retailers not included in the 'major retailers' category.

Nationally, call centre responsiveness indicators have not changed significantly in 2021–22 compared with 2020–21. Overall, retailers saw a general decrease in calls taken within 30 seconds and calls abandoned before being answered, but Tier 2 retailers improved in the average wait times indicator. Alternative contact methods such as 'online chat' are now being made available by many retailers, meaning the number of callers may reduce as customers opt to make contact via other methods. Many retailers also offer a 'call back' service rather than waiting on hold, which may help to improve average wait times.

The total number of calls made to a retailer dropped by 13% in 2021–22. When looking at only major retailers, calls received decreased by 4%, whereas calls to other retailers dropped by 28%.

All major retailers' average customer call wait times were 60 seconds or longer in 2021–22, falling in the 'poor' rating. For all other retailers, 21 were able to meet the 'best' rating, up from 18 in 2020–21. For calls taken within 30 seconds, all retailers had mixed results while some other retailers saw broad improvements, with 26 retailers achieving a 'best' rating – more retailers also achieved 'poor' rating than in the previous year.

Table 4.3 Retailer call responsiveness

Retailer	Calls taken within 30 seconds (%)		Average wait time (seconds)		Calls abandoned before answer (%)	
	2020–21	2021–22	2020–21	2021–22	2020–21	2021–22
Major retailers						
ActewAGL	62%	56%	97	141	5%	7%
AGL	62%	60%	68	85	6%	7%
Aurora Energy	36%	47%	242	158	20%	14%
EnergyAustralia	69%	50%	111	308	5%	12%

Retailer	Calls taken within 30 seconds (%)		Average wait time (seconds)		Calls abandoned before answer (%)	
	2020–21	2021–22	2020–21	2021–22	2020–21	2021–22
Ergon Energy	56%	20%	94	545	5%	13%
Origin Energy	66%	53%	82	135	4%	8%
Tier 2 retailers						
1st Energy	75%	66%	41	66	7%	6%
Alinta Energy	83%	57%	22	102	1%	6%
Altogether Group	39%	25%	47	49	12%	16%
amaysim Energy	86%	–	24	–	2%	–
Amber Electric	–	100%	–	–	–	–
Apex Energy	95%	97%	15	12	–	1%
Arc Energy	64%	83%	113	21	8%	2%
Blue NRG	63%	81%	46	11	20%	13%
Bright Spark Power	93%	98%	10	10	5%	3%
CleanPeak Energy	86%	0%	24	–	14%	–
CovaU	91%	95%	10	12	1%	1%
CPE Mascot	–	–	–	–	–	–
Diamond Energy	100%	100%	–	–	–	–
Discover Energy	97%	53%	23	100	1%	24%
Dodo Power & Gas	55%	65%	10,080	361	16%	8%
Electricity in a Box	77%	77%	27	60	12%	4%
Elysian Energy	96%	36%	39	273	4%	16%
Energy Locals	64%	40%	62	78	6%	28%
Enova Energy	73%	–	75	–	7%	–
Evergy	75%	85%	10	12	19%	14%
Future X Power	94%	91%	23	12	3%	1%
GEE Power & Gas	–	79%	–	51	–	5%
GloBird Energy	54%	58%	104	156	13%	17%
GlowPower	69%	90%	53	35	9%	10%
Humenergy	77%	89%	21	26	23%	7%
Locality Planning Energy	92%	45%	35	72	8%	6%
Lumo Energy	84%	73%	21	51	1%	3%
Metered Energy	88%	91%	20	18	2%	3%
Microgrid Power	–	39%	–	38	–	100%
Mojo Power	68%	86%	33	5	9%	8%
Momentum Energy	80%	69%	38	57	3%	3%
Nectr Energy	64%	29%	47	256	10%	27%

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Retailer	Calls taken within 30 seconds (%)		Average wait time (seconds)		Calls abandoned before answer (%)	
	2020–21	2021–22	2020–21	2021–22	2020–21	2021–22
Next Business Energy	88%	82%	15	17	1%	1%
OC Energy	–	–	–	–	–	–
OVO Energy	88%	91%	48	27	3%	9%
People Energy	65%	82%	31	6	5%	6%
Pooled Energy	75%	–	53	53	6%	–
Power Club	19%	–	158	158	71%	–
Powerdirect	67%	55%	133	195	8%	11%
PowerHub	86%	86%	33	17	4%	4%
Powershop	61%	57%	71	97	6%	8%
Qenergy	63%	84%	35	6	11%	8%
Radian Energy	78%	74%	65	65	10%	14%
Real Utilities	80%	80%	38	56	5%	6%
ReAmped Energy	98%	–	1,221	1,221	1%	–
Red Energy	52%	36%	68	272	5%	17%
Sanctuary Energy	–	–	–	–	–	–
Savant Energy	98%	71%	8	7	3%	3%
Shell Energy	95%	90%	12	16	3%	2%
Simply Energy	77%	75%	111	41	5%	2%
Smart Energy	86%	82%	42	67	5%	3%
Social Energy	92%	46%	52	47	12%	22%
Sumo Power	40%	26%	106	151	6%	10%
Tango Energy	94%	57%	26	165	2%	10%
Telstra Energy Retail	–	82%	–	27	–	6%
The Embedded Networks Company	86%	84%	25	29	2%	2%
Y.E.S. Energy	–	–	–	–	–	–
ZEN Energy	–	100%	–	1	–	–

Notes: Amber Electric, GEE Power & Gas, Local Volts, Telstra Energy Retail and ZEN Energy reported customers for the first time in 2021–22. Enova Energy, Weston Energy and Pooled Energy were suspended from the wholesale market in 2021–22 and the AER appointed a new retailer under the ROLR scheme. OC Energy's call centre data is included in the reporting for its parent company, Origin Energy. Data as at 30 June each year.

Source: AER.

Appendix 1: Continued decrease in use of prepayment meters

A small number of residential customers in Tasmania have electricity prepayment meters (PAYG) installed. Table A1.1 shows the number of customers using PAYG (as at the end of June each year), as well as the number and length of self-disconnections⁷¹ that occurred over the past few years.

In 2021–22 the number of customers with PAYG decreased from previous years. PAYG in Tasmania have been gradually phased out since late 2018. During 2019, Aurora Energy conducted a large project to switch customers to newer Type 4 meters. A small number of residual PAYG remain which will be decommissioned in the future.

Table A1.1 Disconnection of customers using prepayment PAYG meters in Tasmania

Date	PAYG customers	PAYG systems capable of detecting and reporting self-disconnections	Self-disconnection events	Average duration of self-disconnection events
2012–13	33,158	4,662	1,068	237
2013–14	30,640	7,194	2,069	290
2014–15	29,612	8,902	2,632	327
2015–16	26,670	10,854	3,098	246
2016–17	23,641	10,911	3,232	262
2017–18	21,076	10,841	2,915	252
2018–19	10,599	4,589	2,493	221
2019–20	26	—	430	146
2020–21	10	—	—	—
2021–22	6	—	—	—

Source: AER

⁷¹ Self-disconnection means an interruption to the supply of energy because a prepayment meter system has no credit (including emergency credit) available.

Appendix 2: Pricing and affordability methodology

For pricing analysis, the AER estimates annual bill costs for market and standing offers within each jurisdiction using a range and median of offers. These are comprised of:

- average annual household electricity and gas use in each major distribution area
- retail electricity and gas offers in each major distribution area.

We measure energy affordability for each distribution area, based on:

- annual market and standing offer bill costs
- concessions offered to those who may experience financial hardship
- household disposable income.

These inputs are outlined in more detail below.

Annual bill cost

The calculation of an annual bill cost is comprised of several components including usage levels, usage charges, supply charges, and other fees such as membership or metering fees. Figure A2.1 disaggregates these components and highlights the components that feed into a retailer's offer.

Figure A2.1 Components of retail annual bill costs



Energy use

The sources for estimating energy use vary across electricity and gas, due to the differing availability of public information. The levels of electricity and gas use applied in our analysis can be found in Table A2.1 and Table A2.2.

Electricity

The AER analysis is based on the average household electricity use for each major distribution area in each year. This is sourced from information provided by distribution network businesses in response to Regulatory Information Notices (RINs) issued by the AER. This data includes the total electricity use for all residential users (including through controlled loads), and total residential customer numbers. This data is collected on a financial year basis for all regions.

Table A2.1 Average annual electricity use

Jurisdiction	Distribution network	Average annual electricity usage per customer (kWh)				
		2017–18	2018–19	2019–20	2020–21	2021–22
Queensland	Energex	5,641	5,712	5,808	5,782	5,709
	Ergon Energy	5,823	5,838	6,167	6,305	6,499
NSW	Ausgrid	5,496	5,513	5,472	5,406	5,517
	Endeavour Energy	6,370	6,346	6,096	6,029	5,921
	Essential Energy	6,089	6,093	6,014	6,088	6,170
ACT	Evoenergy	6,545	6,588	6,372	6,370	6,499
South Australia	SA Power Networks	4,752	4,671	4,606	4,662	4,526
Victoria	AusNet	4,507	4,612	4,731	4,701	4,351
	CitiPower	4,353	4,351	4,494	4,362	4,805
	Jemena	4,172	4,162	4,475	4,355	4,365
	Powercor	4,936	4,967	5,161	5,036	4,980
	United Energy	4,526	4,541	4,740	4,662	4,617
Tasmania	TasNetworks (D)	7,976	7,975	8,202	8,478	8,393

Source: Economic Benchmarking RIN responses provided by network businesses to the AER.

Gas

The AER sources average gas use estimates for each jurisdiction from a 2020 bill benchmarking survey conducted by Frontier Economics on behalf of the AER. These surveys are completed every 3 years. The average use for a jurisdiction is applied to all distribution areas in that jurisdiction.

Table A2.2 Annual gas use

	Queensland	NSW	ACT	South Australia	Victoria
Annual gas usage per customer (MJ)	7,238	18,384	34,927	16,199	49,799

Source: Consumption based on [Frontier Economics, Report to the AER - Residential energy consumption benchmarks](#).

Energy offers

Offer details are collected for both electricity and gas from our energy price comparison website [EnergyMadeEasy](#). For Victoria, the AER collected tariff details from DELWP, based on information submitted by retailers to the [Victorian Energy Compare](#) website.

The AER's analysis is based on all unique generally available offers in each distribution area at June 2018, June 2019, June 2020, June 2021, June 2022, and September 2022. The AER only considers single rate offers, which represent the most common offer type that energy customers are on. The offer details are filtered to remove those with additional elements above an accessible, energy-only basic offer. For example, offers with a solar/green component and offers that have specific eligibility criteria are removed.

Annual bill calculation

The energy use estimates in Table A2.1 and Table A2.2 are used to calculate an annual bill cost for each single rate offer. The range of offers illustrates the price spread between the highest and lowest offer in each distribution area. The median (rather than a simple average) is used to ensure the analysis is not skewed by a small number of very cheap or very expensive offers.

The annual bill estimates include key conditional discounts offered by retailers (such as discounts for paying on time or paying by direct debit) but exclude discounts for bundling, dual fuel offers or actions unrelated to energy consumption (such as 'refer a friend' rewards). The value of non-cash incentives is also excluded. Fees or credits that customers cannot avoid in the first year of a contract (such as sign-on, membership or metering fees, or loyalty bonuses) are included in the annual bill calculation.

Seasonal pricing is taken into account when calculating the annual bills but assumes a consistent level of energy use throughout the year.

Electricity

In this report 2 types of analysis are undertaken in electricity.

For analysis of trends in prices, electricity use is kept constant for the time series by applying the figures for the latest year for each distribution area. The annual bill is divided by average electricity use to identify costs on a per unit basis. This analysis isolates the effect of changes in retailer offers on annual bills.

For analysis of the cost impact on households, the electricity use data is varied across each year of the time series. This gives a better sense of what consumers actually pay for their annual bills in each distribution area.

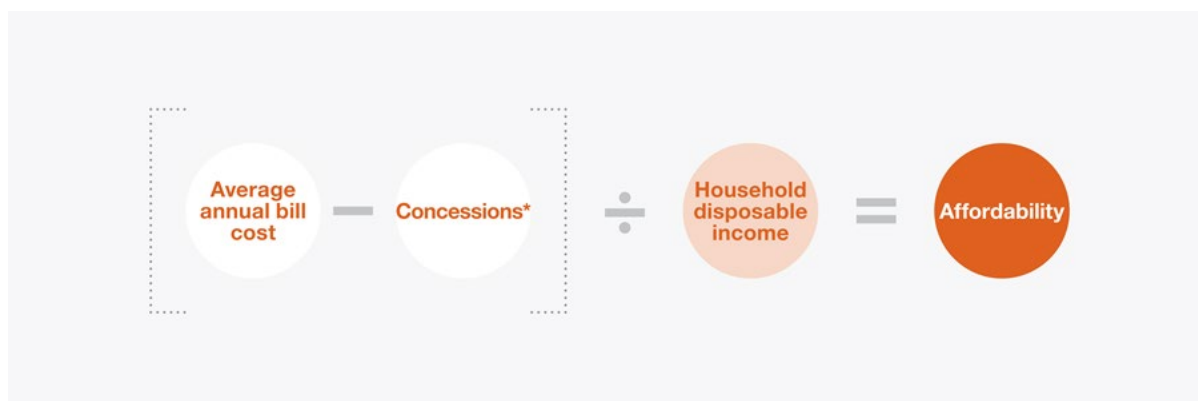
The AER recognises that basing the analysis on total electricity use (including electricity used by controlled loads) will tend to overestimate the annual cost of electricity when applied to single rate offers. This is because it does not reflect that in practice some electricity use is charged at a lower controlled load rate.

Gas

The AER does not have a data source for the change in gas usage across years, all of the analysis uses a consistent gas use estimate across the time series.

Affordability

To get an estimate of affordability we calculate annual bill costs as a proportion of household disposable income for average and low-income households for each region. Figure A2.2 illustrates this calculation.

Figure A2.2 Components of affordability analysis

* Concessions are only applied to annual bill costs for low-income households.

Concessions for low-income households

For the analysis of low-income households, the annual bill calculation is adjusted to account for the benefit of any relevant energy concessions in each region. State and territory governments administer concessions to provide financial assistance to individuals, including people who are elderly, have a disability, are low-income earners, or are experiencing disadvantage. The value of all concessions that are available to households on the basis of low-income are included. Concessions available in 2021–22 are outlined in Table A2.3.

Table A2.3 Energy concessions in 2021–22

Region	Electricity	Gas
Queensland	\$372	\$81
NSW	\$285	\$110
ACT	\$250	\$250
South Australia	\$154	\$154
Victoria	17.5% off after the first \$172	17.5% off after the first \$62*
Tasmania	\$629	N/A

* Gas discount only applies for usage in the period 1 May to 31 October.

Note: Where concession value differs by household characteristics, we have applied the lower value. For broader 'cost of living' concessions that apply in South Australia and the ACT, we have applied one third of the total concession value to electricity, and one third to gas (assuming the remaining one third is applied to other utilities or household expenses).

Source: State and territory government websites.

Household disposable income

Household disposable income best represents the remaining income (after income tax, the Medicare levy and the Medicare levy surcharge are deducted) available to households for expenditure on goods and services, including electricity and gas bills.

This data is collected every 2 years by ABS and is most recently available for the reference periods 2017–18 and 2019–20. The estimated income levels for 2018–19 is based on the midpoint between these data sets. Data for 2020–21 and 2021–22 has been extrapolated by inflating 2019–20 income (Table A2.4). Low-income household data is inflated based on the consumer price index. Average household data is inflated based on the wage price index.

This difference in approach reflects the main source of income for each group (government assistance and wages respectively).

Low-income households

The equivalised household disposable income data has been used to identify low-income households. This measure reflects a household's purchasing power, as it takes into account the household's ability to share resources and enables better comparisons between different size households.

Low-income households in each state and territory are represented by using an adjusted lowest equivalised income quintile. This comprises the average income of the lowest 2 deciles, excluding the first and second percentiles.

For the identified households, the un-equivalised household disposable income is used as the basis for our affordability analysis.

The average household

The AER represents the income of all households by the 'all person' value (the average across all quintiles) of un-equivalised household disposable income.

Table A2.4 Household disposable income

Jurisdiction	Household type	2017–18	2018–19	2019–20	2020–21	2021–22
Queensland	Low-income households	33,124	33,176	33,228	33,912	35,733
	Average household	86,996	91,078	95,160	97,118	104,440
NSW	Low-income households	33,852	33,514	33,176	33,675	34,993
	Average household	100,516	101,088	101,660	103,188	108,838
ACT	Low-income households	42,900	37,362	31,824	32,492	34,077
	Average household	112,008	116,142	120,276	122,799	131,494
South Australia	Low-income households	31,824	31,278	30,732	31,193	32,528
	Average household	82,472	84,370	86,268	87,561	92,678
Victoria	Low-income households	35,048	33,852	32,656	33,125	34,456
	Average household	92,664	96,148	99,632	101,064	106,634
Tasmania	Low-income households	30,992	30,680	30,368	30,918	32,448
	Average household	77,168	77,194	77,220	78,617	84,003

Source: Unpublished ABS estimates of household disposable income

Table A2.5 Annual usage assumptions for customers with concession arrangements

Jurisdiction	Distribution network	Average customer electricity usage (kWh) 2021–22	ACCC May 2022 report median usage	% change relative to median all customers	Estimated annual consumption
Queensland	Energex	5,709	4,346	85%	4,853
	Ergon Energy	6,499	4,346	85%	5,524
NSW	Ausgrid	5,517	4,785	90%	4,966

	Endeavour Energy	5,921	4,785	90%	5,329
	Essential Energy	6,170	4,785	90%	5,553
ACT	Evoenergy	6,499	4,785*	89%	5,784
South Australia	SA Power Networks	4,526	3,647	86%	3,892
	AusNet Services	4,351	3,811	91%	4,373
	CitiPower	4,805	3,811	91%	3,960
Victoria	Jemena	4,365	3,811	91%	3,972
	Powercor	4,980	3,811	91%	4,532
	United Energy	4,617	3,811	91%	4,202
Tasmania	TasNetworks (D)	8,393	4,261*	89%	7,469

*ACCC, [Inquiry into the National Electricity Market - May 2022](#) does not contain Tasmania or ACT data. For Tasmania we used the NEM estimate, for ACT we use NSW as an estimate.

Source: Economic Benchmarking RIN responses provided by network businesses to the AER and ACCC, [Inquiry into the National Electricity Market - May 2022](#).

Table A2.6 Annual usage assumptions for customers in hardship programs

Jurisdiction	Distribution network	Average customer electricity usage (kWh) 2021–22	ACCC May 2022 report median usage	% change relative to median all customers	Estimated annual consumption
Queensland	Energex	5,709	9,316	181%	10,334
	Ergon Energy	6,499	9,316	181%	11,763
NSW	Ausgrid	5,517	9,332	176%	9,711
	Endeavour Energy	5,921	9,332	176%	10,421
	Essential Energy	6,170	9,332	176%	10,860
ACT	Evoenergy	6,499	9,332*	158%	10,268
South Australia	SA Power Networks	4,526	7,298	173%	7,830
	AusNet Services	4,351	6,141	147%	7,064
	CitiPower	4,805	6,141	147%	6,397
Victoria	Jemena	4,365	6,141	147%	6,417
	Powercor	4,980	6,141	147%	7,321
	United Energy	4,617	6,141	147%	6,787
Tasmania	TasNetworks (D)	8,393	7,562*	158%	13,260

*ACCC [Inquiry into the National Electricity Market - May 2022](#) does not contain Tasmania or ACT data. For Tasmania we used the NEM estimate, for ACT we use NSW as an estimate.

Source: Economic Benchmarking RIN responses provided by network businesses to the AER and ACCC, [Inquiry into the National Electricity Market - May 2022](#).

Appendix 3: South Australian service standards have declined

Clause 7 of the *National Energy Retail (Local Provisions) Regulations (South Australia) 2013* imposes minimum service standards on retailers selling energy to small customers in South Australia. The service standards require retailers to use best endeavours to respond to 95% of written enquiries within 5 business days and to answer 85% of telephone calls within 30 seconds between 8 am and 6 pm from Monday to Friday.

Retailers must report to the AER on their compliance with these standards and give reasons for any non-compliance as well as information on strategies to improve compliance in the future.

There were 23 retailers that failed to respond to 95% of written enquiries within 5 business days, this is a significant increase from the 8 retailers in 2020–21. There was a decrease in the number of retailers failed to answer 85% of telephone enquiries within 30 seconds in 2021–22 compared to 2020–21.

Reasons provided for failure to meet the targets included higher numbers of calls received than projected and system issues.

Out of the 31 retailers trading in South Australia, there were three retailers that met both service standards with 100% response rate for two consecutive years: Diamond Energy, MTA Energy and Sustainable Saving.

Table A3.1 South Australian service standards

Retailer	Percentage of written enquiries responded to within 5 business days			Percentage of telephone enquiries answered within 30 seconds		
	2019–20	2020–21	2021–22	2019–20	2020–21	2021–22
AGL	99	85	62	80	63	98
Alinta Energy	90	99	80	95	94	95
amaysim Energy ^	100	–	–	81	–	–
BlueNRG	100	80	80	69	64	91
Clean Peak	99	99	76	100	85	82
Delta Electricity	100	100	100	100	95	100
Diamond Energy	100	100	100	100	100	100
Discover Energy	100	100	48	100	97	77
Dodo Power & Gas	91	95	67	74	48	95
Elysian Energy	100	100	60	95	90	98
Energy Locals	94	75	62	67	54	90
EnergyAustralia	100	100	52	67	70	97
Enwave Mascot ^	100	65	–	48	44	–
Shell Energy	100	100	90	97	95	0
Future X Power	95	100	91	89	100	100
GloBird Energy	100	99	62	56	59	99

Retailer	Percentage of written enquiries responded to within 5 business days			Percentage of telephone enquiries answered within 30 seconds		
	2019–20	2020–21	2021–22	2019–20	2020–21	2021–22
Humenergy ^	100	–	–	100	–	–
Iberdrola ^	100	100	–	100	100	–
Lumo	96	99	74	74	84	98
Momentum Energy	95	96	73	57	80	95
Mojo Power	100	100	84	100	68	100
MTA Energy	100	100	100	100	100	100
Next Business Energy	84	100	82	79	88	98
OC Energy ^	99	100	–	99	100	–
Origin Energy	99	100	87	93	100	94
People Energy ^	100	100	–	100	100	–
Power Club ^	95	97	–	0	60	–
Powershop	99	99	57	43	57	97
Powerdirect	99	85	55	85	67	98
Qenergy	100	100	–	100	67	–
ReAmped Energy	98	96	100	80	100	95
Red Energy	100	97	–	80	80	–
Sanctuary Energy ^	–	–	–	–	–	–
Savant Energy	100	100	71	97	98	100
ZEN Energy	100	0	100	100	0	100
Simply Energy	81	85	80	85	72	0
Sustainable Saving	100	100	100	100	100	100
Tango Energy	100	100	55	79	80	100
Winenergy	63	75	57	42	53	70

Note: ^ no longer trading in South Australia

Source: AER.

Appendix 4: Distribution network performance

Section 285 of the *National Energy Retail Law* specifies that a retail market performance report must include (among other things) a report on the performance of distribution network service standards and associated guaranteed service level (GSL) schemes. The *National Energy Retail Law* defines distribution network service standards as service standards imposed on distribution networks by or under energy laws, including, for example, service standards relating to:

- the frequency and duration of supply interruptions
- the timely notice of planned interruptions
- the quality of supply (excluding frequency) for electricity (including voltage variations)
- wrongful de-energisation (disconnection)
- timeframes for de-energisation and re-energisation (reconnection)
- being on time for appointments
- response time for fault calls
- the provision of fault information.

A number of service standards are set by the individual jurisdictions and therefore differ between states and territories. The following tables summarise distribution networks' performance against their respective jurisdictional service standards and GSL schemes.

Further information on the operational and financial performance of distribution networks is detailed in the AER's [Electricity network performance report 2022](#).

Distribution network performance by jurisdiction

Queensland

- Energex and Ergon Energy each reported increases in wrongful disconnections compared to the previous year. Energex reported 17 wrongful disconnections, up slightly from 15 in the previous year, while Ergon Energy reported 23, up from 11.
- Energex and Ergon each reported fewer instances in failing to attend appointments on time. Energex reported 128, down from 158 in the previous year, while Ergon Energy reported 76, down from 81.
- Both Queensland distribution networks reported fewer more instances of failing to provide a new connection by the agreed date. For both distribution networks, late connections accounted for less than 5% of total new connections.
- Energex paid around \$466,000 in compensation for breaches of the interruption duration GSL, this was down from the over \$1.2 million paid in the previous year. Ergon paid around \$750,000, up from \$530,000 paid in the previous year.

Table A4.1 Queensland electricity distribution networks performance 2021–22

	Energex	Ergon Energy
Customers		
Average number of customers	1,548,811	734,522
Customer service		
Calls to call centre fault line	348,818	392,498
Complaints		
Total complaints received	5,351	4,584
Appointments		
Failure to attend appointments on time (No.)	128	76
Compensation paid (\$)	7,936	4,712
Connections		
Number of new connections	24,939	8,535
Connections not provided by agreed date (No.)	926	5
Compensation paid (\$)	343,666	992
Reconnections		
Number of reconnections	200,066	111,627
Reconnections not completed by agreed date (No)	25	25
Compensation paid (\$)	3,472	3,224
Wrongful disconnections		
Number of wrongful disconnection payments	17	23
Compensation paid (\$)	2,635	3,565
Faulty streetlights		
Number of total streetlights	344,207	150,206
Average monthly number of streetlights "out"	824	422
Streetlights not repaired by "fix by" date	271	3,328
Average number of days to repair streetlights	15	20
Compensation paid (\$)	–	–
Planned interruptions		
Number of planned interruptions	429	3,013
Number of occasions where there was insufficient notice to residential customers	243	566
Compensation paid (insufficient notice to residential customers) (\$)	7,533	17,546
Number of occasions where there was insufficient notice to small business customers	33	71
Compensation paid (insufficient notice to small business customers) (\$)	2,541	5,461
Unplanned interruption duration GSL		
Number of instances where unplanned interruptions breached interruption frequency standards	3,760	6,050

	Energex	Ergon Energy
Compensation paid (\$)	466,240	750,200
Unplanned interruption frequency GSL		
Number of instances where unplanned interruptions breached interruption frequency standards	0	0
Compensation paid (\$)	0	0
System average interruption duration index (SAIDI) (minutes) after removing excluded events		
CBD	3.1	0.0
Urban	57.6	130.1
Short rural	152.6	305.2
Long rural	0.0	907.3
Whole Network	88.3	314.3
System average interruption frequency index (SAIFI) (number) after removing excluded events		
CBD	0.1	0.0
Urban	0.6	1.2
Short rural	1.3	2.5
Long rural	0.0	4.8
Whole Network	0.8	2.3

Note: The GSL payment amounts for Energex and Ergon are outlined in the [Electricity Distribution Network Code](#), published by the Queensland Competition Authority, p. 7.

Source: AER.

NSW

- The number of overall complaints received by the NSW distribution networks increased compared with the prior year. All three distribution networks recorded increased complaints this year.
- All three distribution networks recorded decreases in the number of streetlight faults compared to the past year.
- All three NSW distribution networks paid less compensation for faulty streetlights, due to having less occasions where they did not complete repairs by the agreed date.
- Ausgrid and Endeavour Energy had significant increases in the instances of where the unplanned interruption frequency standard was breached.

Table A4.2 NSW electricity distribution networks performance 2021–22

	Ausgrid	Endeavour Energy	Essential Energy
Customers			
Average number of customers	1,783,767	1,102,774	1,102,774
Customer service			
Calls to call centre fault line	115,136	126,141	169,607
Complaints			

	Ausgrid	Endeavour Energy	Essential Energy
Total complaints received	8,014	1,396	2,053
Connections			
Number of new connections	482	0	115,431
Connections not provided by agreed date (No)	0	0	0
Compensation paid (\$)	0	0	0
Faulty streetlights			
Number of total streetlights	257,224	227,087	165,512
Average monthly number of streetlights "out"	1551	2111	1602
Streetlights not repaired by "fix by" date	2958	6335	2204
Average number of days to repair streetlights	8	15	7
Compensation paid (\$)	5,775	9,500	2,450
Unplanned interruption duration GSL			
Number of instances where unplanned interruptions breached interruption frequency standards	16,238	9,932	7
Total amount of compensation paid for duration of supply interruptions exceeding threshold	18,960	–	560
Unplanned interruption frequency GSL			
Number of instances where unplanned interruptions breached interruption frequency standards	346	434	0
Total amount of compensation paid for frequency of supply interruptions exceeding threshold	0	640	0
System average interruption duration index (SAIDI) (minutes) after removing excluded events			
CBD	6.1	0.0	0.0
Urban	63.1	45.3	66.5
Short rural	130.6	205.0	200.4
Long rural	1563.2	1909.2	498.2
Whole Network	74.9	91.7	218.3
System average interruption frequency index (SAIFI) (number) after removing excluded events			
CBD	0.0	–	–
Urban	0.6	0.4	0.8
Short rural	0.9	1.3	1.6
Long rural	2.0	7.5	2.7
Whole Network	0.6	0.7	1.6

Source: AER.

ACT

- Evoenergy reported 38 instances where a complaint was not responded to within 20 business days, up from 46 instances the previous year. This was from a total of 387 complaints, up from 316 the previous year.

- There were 17 occasions when Evoenergy failed to provide sufficient notice of a planned interruption.
- There were 885 instances where Evoenergy customers experienced an unplanned interruption which was not restored within 12 hours. This over a 2-fold increase from the 349 instances that were recorded in the previous year.
- No Evoenergy customers experienced more than 9 unplanned sustained interruptions.

Table A4.3 ACT electricity distribution network performance 2021–22

Evoenergy	
Customers	
Average number of customers	216,947
Customer service	
Calls to call centre fault line	24,091
Complaints	
Total complaints received	372
Number of GSL payments for complaints	2
Compensation paid (\$)	40
Connections	
Number of new connections	3,168
Number of GSL payments for customer connection times	3
Compensation paid (\$)	180
Wrongful disconnections	
Number of GSL payments for wrongful disconnection	3
Compensation paid (\$)	300
Response to faults	
Number of GSL payments for response time of a fault	5
Compensation paid (\$)	300
Planned interruptions	
Number of GSL payments for notice of planned interruption	101
Compensation paid (\$)	5,050
Unplanned interruption duration GSL	
Number of GSL payments for unplanned sustained interruption >12hours	897
Compensation paid (unplanned sustained interruption >12hours) (\$)	71,760
Number of GSL payments for the total duration of interruptions	227
Compensation paid (total duration of interruptions) (\$)	22,650
System average interruption duration index (SAIDI) (minutes) after removing excluded events	
CBD	0.0
Urban	47.3
Short rural	51.5

	Evoenergy
Long rural	0.0
Whole Network	48.3
System average interruption frequency index (SAIFI) (number) after removing excluded events	
CBD	0.0
Urban	0.8
Short rural	0.8
Long rural	0.0
Whole Network	0.8

Source: AER.

South Australia

- SA Power Networks reported 240 new connections not provided by the agreed date, this is up from 160 in the previous year. This reflected an increase in the total number of new connections provided by SA Power Networks.
- There was an increase in reported streetlight faults in the metropolitan area, with an increase in the number of streetlights not repaired by SA Power Networks by the agreed date.
- SA Power Networks paid \$2,361,700 in compensation for supply interruptions that exceeded the duration or frequency thresholds. This represented a decrease from \$1,579,400 the previous year.

Table A4.4 South Australia electricity distribution network performance 2021–22

	SA Power Networks
Customers	
Average number of customers	919,369
Customer service	
Calls to call centre fault line	73,798
Complaints	
Total complaints received	1,825
Connections	
Number of new connections	9,050
Connections not provided by agreed date	236
Compensation paid for late connections	75,010
Faulty streetlights – Metropolitan	
Number of streetlights	170,623
Number of streetlights 'out's' during period	21,202
Average number of business days to repair streetlights	6
Number of streetlights not repaired within 5 business days	2,056

SA Power Networks	
Compensation paid (\$)	172,375
Faulty streetlights – Country areas	
Number of streetlights	47,724
Number of streetlights 'out's' during period	3,059
Average number of business days to repair streetlights	4
Number of streetlights not repaired within 5 business days	120
Compensation paid (\$)	5,900
Unplanned interruption duration GSL	
Number of GSL payments for annual duration of supply interruptions > 20 and < 30 hours	13,927
Compensation paid (annual duration of supply interruptions > 20 and < 30 hours) \$	1,392,700
Number of GSL payments for annual duration of supply interruptions > 30 and < 60 hours	5,460
Compensation paid (annual duration of supply interruptions > 30 and < 60 hours) \$	819,000
Number of GSL payments for annual duration of supply interruption > 60 hours	500
Compensation paid (annual duration of supply interruption > 60 hours) \$	150,000
Unplanned interruption frequency GSL	
Number of GSL payments for annual supply interruptions > 9 interruptions	527
Number of annual supply interruptions > 9 interruptions compensation	52,700
System average interruption duration index (SAIDI) (minutes) after removing excluded events	
CBD	13.2
Urban	102.7
Short rural	149.1
Long rural	281.0
Whole Network	135.7
System average interruption frequency index (SAIFI) (number) after removing excluded events	
CBD	0.2
Urban	0.9
Short rural	0.9
Long rural	1.4
Whole Network	1.0

Source: AER.

Tasmania

- TasNetworks (D) reported 727 complaints, down from last year but still higher than previous years.
- TasNetworks (D) reported that 439 new connections were not completed by the agreed date, down from 478 the previous year, while \$19,680 was paid in compensation to

customers for those connections not completed by the agreed data. This was down from \$15,180 the previous year.

- TasNetworks (D) failed to notify 17 customers of a planned interruption, down from 37 the previous year, with the number of planned interruptions reducing by 2% compared to the previous year.
- TasNetworks (D) paid \$989,440 for breaches of the outage duration GSL, down up from \$1,182,800 the previous year.

Table A4.5 Tasmania electricity distribution network performance 2021–22

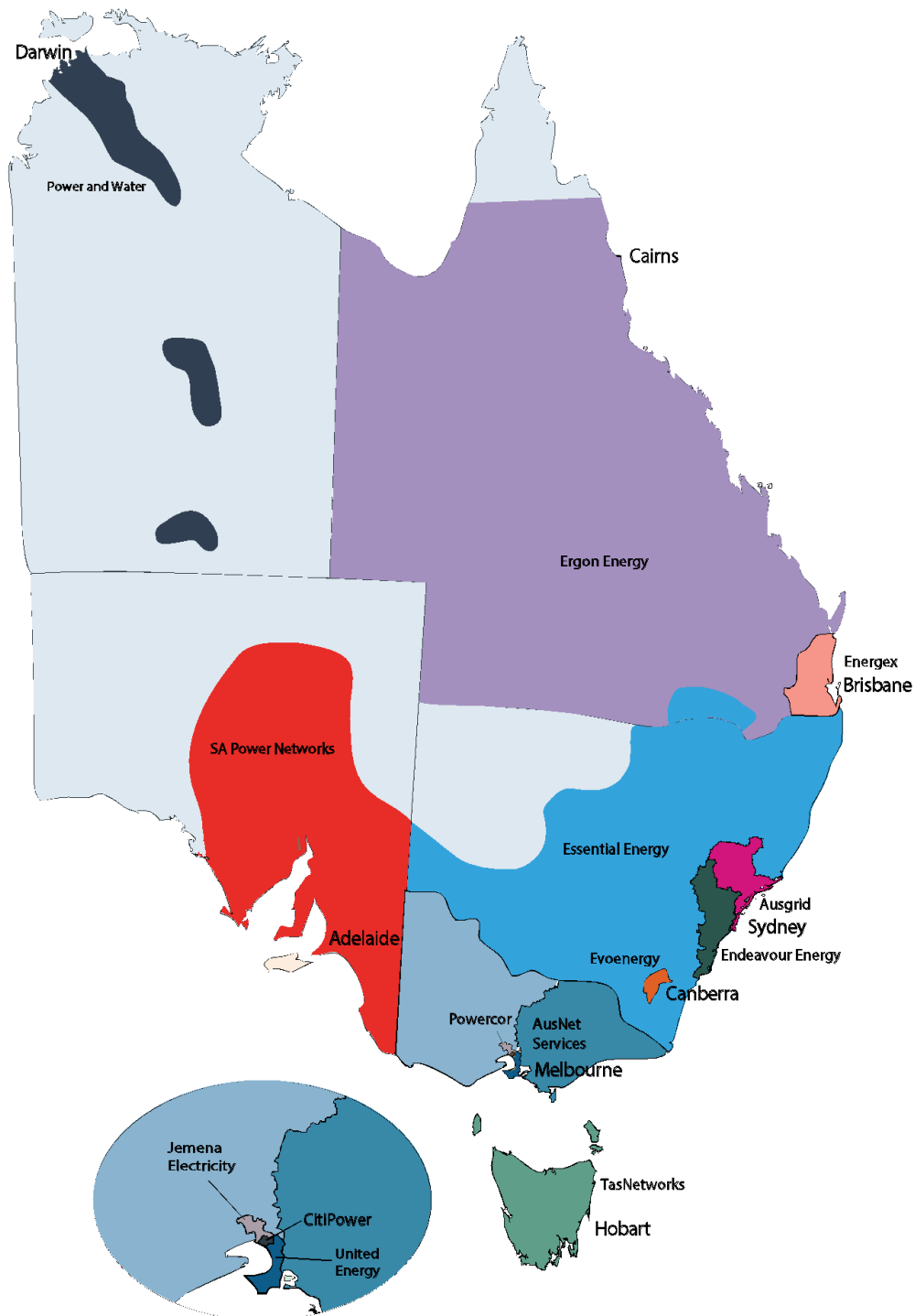
TasNetworks (D)	
Customers	
Average number of customers	298,251
Customer service	
Calls to call centre fault line	38,035
Complaints	
Total complaints received	727
Connections	
Number of new connections	2,876
Connections not meeting customers' expectations (No.)	208
Compensation paid (\$)	19,680
Faulty streetlights	
Number of total streetlights	53,942
Average monthly number of streetlights "out"	194
Streetlights not repaired by "fix by" date	1,245
Average number of days to repair streetlights	15
Compensation paid (\$)	–
Unplanned interruption duration GSL	
Number of instances where unplanned interruptions breached Interruption Frequency Standard	9,508
Compensation paid (\$)	989,440
Unplanned interruption frequency GSL	
Number of instances where unplanned interruptions breached Interruption Frequency Standard	1,241
Compensation paid (\$)	99,280
System average interruption duration index (SAIDI) (minutes) after removing excluded events	
Critical Infrastructure	3.4
High density commercial	57.0
Urban	96.9
High density rural	279.6
Low density rural	468.1

TasNetworks (D)	
Whole Network	181.3
System average interruption frequency index (SAIFI) (number) after removing excluded events	
Critical Infrastructure	0.1
High density commercial	0.7
Urban	1.0
High density rural	2.3
Low density rural	3.5
Whole Network	1.6

Note: *The reconnections and street light reporting requirements were removed in the *amended [Electricity supply industry performance and information reporting guideline - July 2021](#)*, because TasNetworks (D) do not provide customer charter payments for reconnections or streetlight guarantees.

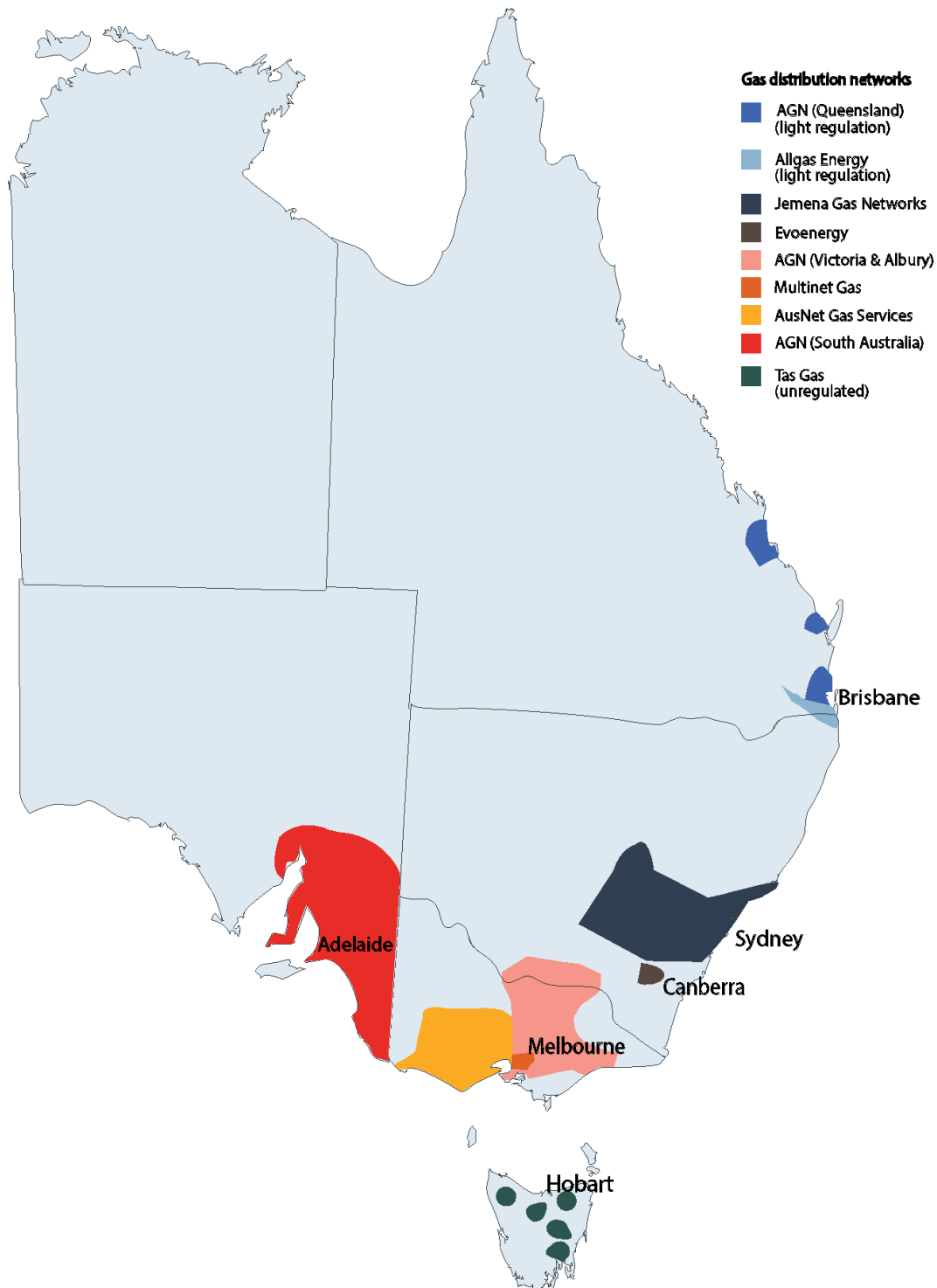
Source: AER.

Appendix 5: Map of electricity distribution networks



Source: AER.

Appendix 6: Map of gas distribution networks



Source: AER.

Appendix 7: Figures source data

The source data for figures in this report can be found in the Schedules posted with the *Annual Retail Market Report 2021-22* to the AER website.

Table A7.1 provides the specific data source for each figure and any calculations made using that data.

Table A7.1 Data source for figures included in the Annual retail markets report 2021–22

Figure	Data	Data source	Calculation
Figure 1.1	Residential customer market share by retailer	Schedule 2 tabs “Res Elect Cust#s & Mkt Contr” “Res Gas Cust#s & Mkt Contr”	Market share calculated by dividing primary regional retailers’ residential customers by the total residential customers.
Figure 1.2	Small business customers market share by retailer	Schedule 2 tabs “SmlBiz Elec Cust#s & Mkt Contr” “SmlBiz Gas Cust#s & Mkt Contr”	Market share calculated by dividing primary regional retailers’ small business customers by the total small business customers.
Figure 1.3	Large customers market share by retailer	Schedule 2 tabs “Lrg Elec Cust#s & Mkt Contr” “Lrg Gas Cust#s & Mkt Contr”	Market share calculated by dividing retailer category’s large customers by the total large customers.
Figure 1.4	Electricity and gas retailer residential customer numbers	Schedule 2 tabs “Res Elect Cust#s & Mkt Contr” “Res Gas Cust#s & Mkt Contr”	Retailers grouped into small retailer, medium retailer, and large retailer categories.
Figure 1.5	HHI for the electricity and gas residential markets	Schedule 2 tabs “Res Elect Cust#s & Mkt Contr” “Res Gas Cust#s & Mkt Contr”	Market concentration calculated according to Herfindahl-Hirschman Index (HHI).
Figure 1.6	Annual change in HHI	Schedule 2 tabs “Res Elect Cust#s & Mkt Contr” “Res Gas Cust#s & Mkt Contr”	Market concentration calculated according to Herfindahl-Hirschman Index (HHI).
Figure 1.7	Residential electricity customer numbers by large retailers – NSW	Schedule 2 tab “Res Elect Cust#s & Mkt Contr”	N/A
Figure 1.8	Residential electricity customer numbers by other retailers – NSW	Schedule 2 tab “Res Elect Cust#s & Mkt Contr”	All other retailers calculated as cumulatively total of all other retailers (excluding retailers included in Figure 1.8, AGL, EnergyAustralia, Origin Energy and Red Energy).
Figure 1.9	Residential gas customer numbers by large retailers – NSW	Schedule 2 tab “Res Gas Cust#s & Mkt Contr”	N/A

Figure	Data	Data source	Calculation
Figure 1.10	Residential gas customer numbers by other retailers – NSW	Schedule 2 tab “ <i>Res Gas Cust#s & Mkt Contr</i> ”	All other retailers calculated as cumulatively total of all other retailers (excluding retailer included in Figure 1.10, AGL, EnergyAustralia, Origin Energy and Red Energy).
Figure 1.11	Residential electricity customer numbers by retailer – ACT	Schedule 2 tab “ <i>Res Elect Cust#s & Mkt Contr</i> ”	All other retailers calculated as cumulatively total of all other retailers.
Figure 1.12	Residential gas customer numbers by other retailer – ACT	Schedule 2 tab “ <i>Res Gas Cust#s & Mkt Contr</i> ”	All other retailers calculated as cumulatively total of all other retailers.
Figure 1.13	Residential electricity customers on market contracts by retailer	Schedule 2 tab “ <i>Res Elect Cust#s & Mkt Contr</i> ”	All other retailers calculated as cumulatively total of all other retailers.
Figure 1.14	Residential electricity customers on market contracts by state/jurisdiction	Schedule 2 tab “ <i>Res Elect Cust#s & Mkt Contr</i> ”	<p>Primary regional retailers market contract percentages calculated as number of residential electricity customers on market contracts for all primary regional retailers divided by total residential electricity customers for all primary regional retailers.</p> <p>Primary regional retailers market share calculated as cumulative market share of residential electricity customers for primary regional retailers.</p> <p>Tier 2 market contract percentages calculated as number of residential electricity customers on market contracts for all tier 2 retailers divided by total residential electricity customers for tier 2 retailers.</p> <p>Tier 2 retailers market share calculated as cumulative market share of residential electricity customers for tier 2 retailers.</p>
Figure 1.15	Small business electricity customers on market contracts by retailer	Schedule 2 tab “ <i>Res Elect Cust#s & Mkt Contr</i> ”	N/A
Figure 1.16	Residential gas customers on market contracts by retailer	Schedule 2 tab “ <i>SmlBiz Elec Cust#s & Mkt Contr</i> ”	<p>Primary regional retailers market contract percentages calculated as number of small business electricity customers on market contracts for all primary regional retailers divided by total small business electricity customers for all primary regional retailers.</p> <p>Primary regional retailers market share calculated as cumulative market share of small business electricity customers for primary regional retailers.</p> <p>Tier 2 market contract percentages calculated as number of small business electricity customers on</p>

Figure	Data	Data source	Calculation
			market contracts for all tier 2 retailers divided by total small business electricity customers for tier 2 retailers. Tier 2 retailers market share calculated as cumulative market share of small business electricity customers for tier 2 retailers.
Figure 1.17	Small business gas customers on market contracts by retailer	Schedule 2 tab “ <i>Res Gas Cust#s & Mkt Contr</i> ”	Tier 2 retailers market contract percentages calculated as number of residential gas customers on market contracts for all tier 2 retailers divided by total residential gas customers for all tier 2 retailers. Tier 2 retailers market share calculated as cumulative market share of residential gas customers for tier 2 retailers.
Figure 1.18	Number of active residential retailers by state/jurisdiction	Schedule 2 tab “ <i>Res Elect Cust#s & Mkt Contr</i> ”	N/A
Figure 1.19	Electricity switching rate between retailers	Schedule 2 tab “ <i>Switching</i> ”	N/A
Figure 1.20	Gas switching rate between retailers	Schedule 2 tab “ <i>Switching</i> ”	N/A
Figure 2.1	Long term trends in energy prices and income (inflation adjusted)	Electricity and gas index – ABS, Consumer Price Index, various years Income index – ABS, Household Income and Wealth, Australia, various years	N/A
Figure 2.2	Composition of residential electricity and gas bills	Electricity – AEMC, Residential electricity price trends 2020, Final report, December 2020; Gas – Oakley Greenwood, Gas price trends review 2017, March 2018	N/A
Figure 2.3	Residential electricity median market and standing offer prices	Energy Made Easy and Victorian Energy Compare – Offer data Economic Benchmarking RIN – Table 3.4.1 – Customer type or class – Residential customers energy deliveries Economic Benchmarking RIN – Table 3.4.2 – Customer numbers – Residential customers	Cents the kilowatt hour for each distribution network calculated by dividing median residential market offer and standing offers prices for each distribution network and dividing by the average residential consumption for each customer for each distribution network. Market offer and standing offer prices disaggregated by respective distribution network. Average residential consumption calculated by dividing the residential energy consumption (Table 3.4.1) by the residential customers (Table 3.4.2).

Figure	Data	Data source	Calculation
Figure 2.4	Residential electricity market and standing offers	Energy Made Easy and Victorian Energy Compare – Offer data	Market offer and standing offer prices disaggregated by respective distribution network.
Figure 2.5	Residential gas median market and standing offer prices	Energy Made Easy and Victorian Energy Compare – Offer data Frontier Economics – Residential energy consumption benchmarks – Table 11 Average seasonal gas consumption by state	Cents the kilowatt hour for each distribution network calculated by dividing median residential market offer and standing offers prices for each distribution network and dividing by the average residential consumption for each customer for each distribution network.
Figure 2.6	Residential gas market and standing offers	Energy Made Easy and Victorian Energy Compare – Offer data	Market offer and standing offer prices disaggregated by respective distribution network.
Figure 2.7	Proportion of market offers that have conditional discounts	Energy Made Easy and Victorian Energy Compare – Offer data	Market offers from conditional discounts divided by the total market offers.
Figure 2.8	Average value of conditional discounts for market offers	Energy Made Easy and Victorian Energy Compare – Offer data	Market offers from conditional discounts divided by the total market offers.
Figure 2.9	Average annual household electricity usage	Economic Benchmarking RIN – Table 3.4.1 – Customer type or class – Residential customers energy deliveries Economic Benchmarking RIN – Table 3.4.2 – Customer numbers – Residential customers	Average annual household electricity usage calculated by dividing the residential energy consumption (Table 3.4.1) by the residential customers (Table 3.4.2).
Figure 2.10	Average annual household gas usage	Frontier Economics – Residential energy consumption benchmarks – Table 11 Average seasonal gas consumption by state	N/A
Figure 2.11	Comparison of median market offer electricity bills for low and average income households – Queensland	Energy Made Easy and Victorian Energy Compare – Offer data Income index – ABS, Household Income and Wealth, Australia	Proportion of income calculated by dividing median market offer for each distribution network divided by low and average income households Market offer prices disaggregated by respective distribution network. Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI. Low-income household income adjusted by energy concessions available to customers.
Figure 2.12	Comparison of median market offer electricity bills for low and average income households – NSW & the ACT	Energy Made Easy and Victorian Energy Compare – Offer data Income index – ABS, Household Income and Wealth, Australia	Proportion of income calculated by dividing median market offer for each distribution network divided by low and average income households Market offer prices disaggregated by respective distribution network.

Figure	Data	Data source	Calculation
		Economic Benchmarking RIN – Table 3.4.1 – Customer type or class – Residential customers energy deliveries	Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI. Low-income household income adjusted by energy concessions available to customers.
Figure 2.13	Comparison of median market offer electricity bills for low and average income households – South Australia & Tasmania	Energy Made Easy and Victorian Energy Compare – Offer data Income index – ABS, Household Income and Wealth, Australia Economic Benchmarking RIN – Table 3.4.1 – Customer type or class – Residential customers energy deliveries	Proportion of income calculated by dividing median market offer for each distribution network divided by low and average income households Market offer prices disaggregated by respective distribution network. Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI. Low-income household income adjusted by energy concessions available to customers.
Figure 2.14	Comparison of median market offer electricity bills for low and average income households – Victoria	Energy Made Easy and Victorian Energy Compare – Offer data Income index – ABS, Household Income and Wealth, Australia Economic Benchmarking RIN – Table 3.4.1 – Customer type or class – Residential customers energy deliveries	Proportion of income calculated by dividing median market offer for each distribution network divided by low and average income households Market offer prices disaggregated by respective distribution network. Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI. Low-income household income adjusted by energy concessions available to customers.
Figure 2.15	Annual electricity bills for average & low-income households on a median market and standing offer	Energy Made Easy and Victorian Energy Compare – Offer data Income index – ABS, Household Income and Wealth, Australia Economic Benchmarking RIN – Table 3.4.1 – Customer type or class – Residential customers energy deliveries	Proportion of income calculated by dividing median market and standing offers for each distribution network divided by low and average income households Market and standing offer prices disaggregated by respective distribution network. Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI. Low-income household income adjusted by energy concessions available to customers.
Figure 2.16	Electricity bills as a percentage of disposable income for low and average income households	Energy Made Easy and Victorian Energy Compare – Offer data Income index – ABS, Household Income and Wealth, Australia Economic Benchmarking RIN – Table 3.4.1 – Customer type or class – Residential customers energy deliveries	Proportion of income calculated by dividing median market and standing offers for each distribution network divided by low and average income households Market and standing offer prices disaggregated by respective distribution network. Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI.

Figure	Data	Data source	Calculation
			<p>2022 by multiplying 2020 income by CPI.</p> <p>Low-income household income adjusted by energy concessions available to customers.</p> <p>Ranges calculated by determining minimum, median and maximum for proportion of income for both low and average income households.</p>
Figure 2.17	Electricity bills for customers in hardship programs and/or with concession arrangements	<p>Energy Made Easy and Victorian Energy Compare – Offer data</p> <p>Income index – ABS, Household Income and Wealth, Australia</p> <p>ACCC Inquiry into the National Electricity Market – May 2022 – Appendix A – Supplementary tables A3.19–3.22 – Hardship bill data</p> <p>Economic Benchmarking RIN – Table 3.4.1 – Customer type or class – Residential customers energy deliveries</p>	<p>Proportion of income calculated by dividing median market and standing offers for each distribution network divided by low and average income households</p> <p>Market and standing offer prices disaggregated by respective distribution network.</p> <p>Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI.</p> <p>Low-income household income adjusted by energy concessions available to customers.</p>
Figure 2.18	Comparison of median market offer gas bills for low and average income households – Queensland	<p>Energy Made Easy and Victorian Energy Compare – Offer data</p> <p>Income index – ABS, Household Income and Wealth, Australia</p> <p>Frontier Economics – Residential energy consumption benchmarks – Table 11 Average seasonal gas consumption by state</p>	<p>Proportion of income calculated by dividing median market and standing offers for each distribution network divided by low and average income households</p> <p>Market and standing offer prices disaggregated by respective distribution network.</p> <p>Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI.</p> <p>Low-income household income adjusted by energy concessions available to customers.</p>
Figure 2.19	Comparison of median market offer gas bills for low and average income households – NSW & ACT & South Australia	<p>Energy Made Easy and Victorian Energy Compare – Offer data</p> <p>Income index – ABS, Household Income and Wealth, Australia</p> <p>Frontier Economics – Residential energy consumption benchmarks – Table 11 Average seasonal gas consumption by state</p>	<p>Proportion of income calculated by dividing median market and standing offers for each distribution network divided by low and average income households</p> <p>Market and standing offer prices disaggregated by respective distribution network.</p> <p>Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI.</p> <p>Low-income household income adjusted by energy concessions available to customers.</p>

Figure	Data	Data source	Calculation
Figure 2.20	Comparison of median market offer gas bills for low and average income households – Victoria & South Australia	Energy Made Easy and Victorian Energy Compare – Offer data Income index – ABS, Household Income and Wealth, Australia Frontier Economics – Residential energy consumption benchmarks – Table 11 Average seasonal gas consumption by state	Proportion of income calculated by dividing median market and standing offers for each distribution network divided by low and average income households Market and standing offer prices disaggregated by respective distribution network. Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI. Low-income household income adjusted by energy concessions available to customers.
Figure 2.21	Gas bills for low-income households on a median market and standing offer	Energy Made Easy and Victorian Energy Compare – Offer data Income index – ABS, Household Income and Wealth, Australia Frontier Economics – Residential energy consumption benchmarks – Table 11 Average seasonal gas consumption by state	Proportion of income calculated by dividing median market and standing offers for each distribution network divided by low and average income households Market and standing offer prices disaggregated by respective distribution network. Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI. Low-income household income adjusted by energy concessions available to customers.
Figure 2.22	Gas bills as a proportion of disposable income for average and low-income households	Energy Made Easy and Victorian Energy Compare – Offer data Income index – ABS, Household Income and Wealth, Australia Frontier Economics – Residential energy consumption benchmarks – Table 11 Average seasonal gas consumption by state	Proportion of income calculated by dividing median market and standing offers for each distribution network divided by low and average income households Market and standing offer prices disaggregated by respective distribution network. Low and average household income converted into nominal for 2021 and 2022 by multiplying 2020 income by CPI. Low-income household income adjusted by energy concessions available to customers. Ranges calculated by determining minimum, median and maximum for proportion of income for both low and average income households.
Figure 3.1	Residential customers in energy debt by state/jurisdiction	Schedule 3 tab “Repaying & Avg Debt Resi”	Number of residential customers repaying energy debt divided by total residential customers for each state/jurisdiction.
Figure 3.2	Average debt of residential customers by state/jurisdiction	Schedule 3 tab “Repaying & Avg Debt Resi”	N/A
Figure 3.3	Average debt of residential customers by retailer	Schedule 3 tab “Repaying & Avg Debt Resi”	Average debt for primary regional retailers is calculated by multiplying the average amount of residential energy debt for primary regional retailers by

Figure	Data	Data source	Calculation
			<p>the number of residential customers repaying energy debt for primary regional retailers.</p> <p>This calculated amount is then divided by the total number of residential customers repaying energy debt.</p> <p>Average debt for tier 2 retailers is calculated by multiplying the average residential debt for all retailers by the total number of residential customers repaying energy debt.</p> <p>This calculated amount then subtracts the average residential debt totals for AGL, EnergyAustralia, Origin Energy and primary regional retailers.</p> <p>This outturn total is then divided by the total number of residential customers repaying energy debt for tier 2 retailers.</p>
Figure 3.4	Customers in debt – Debt amount and debt age	Schedule 3 tab “ <i>Amt & Age of Debt – Resi Elec</i> ”	Change in debt amounts from 2020-21 to 2021-22 divided by 2020-21 debt amounts.
Figure 3.5	Small business customers in debt by state/jurisdiction	Schedule 3 tab “ <i>Repaying & Avg Debt SmlBus</i> ”	Number of small business customers repaying energy debt divided by total small business customers for each state/jurisdiction.
Figure 3.6	Average debt of small business customers by state/jurisdiction	Schedule 3 tab “ <i>Repaying & Avg Debt SmlBus</i> ”	N/A
Figure 3.7	Residential electricity customers on payment plans by state/jurisdiction	Schedule 3 tab “ <i>Payment Plans</i> ”	N/A
Figure 3.8	Residential gas customers on payment plans by state/jurisdiction	Schedule 3 tab “ <i>Payment Plans</i> ”	N/A
Figure 3.9	Residential electricity and gas customers on payment plans by retailer	Schedule 3 tab “ <i>Payment Plans</i> ”	<p>Proportion of electricity and gas customers from primary regional retailers on payments plans calculated by dividing the number of residential customers on payment plans for primary regional retailers by the total residential customers for primary regional retailers.</p> <p>Proportion of electricity and gas customers from tier 2 retailers on payments plans calculated by dividing the number of residential customers on payment plans for tier 2 retailers by the total residential customers for tier 2 retailers.</p>
Figure 3.10	Electricity payment plans cancelled by state/jurisdiction	Schedule 3 tab “ <i>Payment Plans</i> ”	N/A
Figure 3.11	Gas payment plans cancelled by state/jurisdiction	Schedule 3 tab “ <i>Payment Plans</i> ”	N/A

Figure	Data	Data source	Calculation
Figure 3.12	Reasons for electricity residential customers entering hardship programs	Schedule 4 tab <i>"Hardship entering program"</i>	Cumulative total of electricity customers entering hardship program for each category type.
Figure 3.13	Reasons for gas residential customers entering hardship programs	Schedule 4 tab <i>"Hardship entering program"</i>	Cumulative total of gas customers entering hardship program for each category type.
Figure 3.14	Debt levels for electricity residential customers entering hardship programs	Schedule 4 tab <i>"Hardship debt on entering"</i>	Cumulative total of electricity customers with debt entering hardship programs for each monetary debt category.
Figure 3.15	Debt levels for residential gas customers entering hardship programs	Schedule 4 tab <i>"Hardship debt on entering"</i>	Cumulative total of gas customers with debt entering hardship programs for each monetary debt category.
Figure 3.16	Debt aging for electricity customers entering hardship programs	Schedule 4 tab <i>"Hardship age of debt – electricity"</i>	Cumulative total of electricity customers with debt entering hardship programs for each aged debt category.
Figure 3.17	Debt aging for gas customers entering hardship programs	Schedule 4 tab <i>"Hardship age of debt – gas"</i>	Cumulative total of gas customers with debt entering hardship programs for each aged debt category.
Figure 3.18	Electricity customers on hardship programs by state/jurisdiction	Schedule 4 tab <i>"Hardship numbers – electricity"</i>	N/A
Figure 3.19	Gas customers on hardship programs by state/jurisdiction	Schedule 4 tab <i>"Hardship numbers – gas"</i>	N/A
Figure 3.20	Average electricity hardship debt and average electricity debt at time of entry to hardship programs by state/jurisdiction	Schedule 4 tab <i>"Hardship Avg & Entry Debt – electricity"</i>	N/A
Figure 3.21	Residential customers in hardship debt and energy debt by state/jurisdiction	Schedule 2 tab <i>"Res Elect Cust#s & Mkt Contr"</i> Schedule 3 tab <i>"Repaying & Avg Debt Resi – electricity"</i> Schedule 4 tab <i>"Hardship numbers – electricity"</i>	Percentage of residential customers in hardship debt calculated by dividing the number of customers in hardship programs for each state/jurisdiction divided by the total residential customer numbers for each state/jurisdiction. Percentage of residential customers in energy debt calculated by dividing the number of customers repaying energy debt by the total residential customer numbers for each state/jurisdiction.
Figure 3.22	Average gas hardship debt and average gas debt at time of entry to hardship programs by state/jurisdiction	Schedule 4 tab <i>"Hardship Avg & Entry Debt – gas"</i>	N/A
Figure 3.23	Electricity hardship customers meeting usage costs	Schedule 4 tab <i>"Hardship repayment plan type"</i>	Cumulative total of electricity customers for each hardship repayment plan type.

Figure	Data	Data source	Calculation
Figure 3.24	Gas hardship customers meeting usage costs	Schedule 4 tab <i>"Hardship repayment plan type"</i>	Cumulative total of gas customers for each hardship repayment plan type.
Figure 3.25	Hardship customers receiving concessions by state/jurisdiction	Schedule 4 tab <i>"Hardship concessions"</i>	N/A
Figure 3.26	Electricity customers exiting hardship programs	Schedule 4 tab <i>"Hardship program exiting"</i>	Total is cumulative total of exiting hardship program categories.
Figure 3.27	Gas customers exiting hardship programs	Schedule 4 tab <i>"Hardship program exiting"</i>	Total is cumulative total of exiting hardship program categories.
Figure 3.28	Electricity customers excluded from hardship programs	Schedule 4 tab <i>"Hardship program excluded"</i>	Percentage for each exclusion from hardship reason category is calculated by dividing the exclusion from hardship reason category by the total number of electricity customers excluded from hardship programs.
Figure 3.29	Gas customers excluded from hardship programs	Schedule 4 tab <i>"Hardship program excluded"</i>	Percentage for each exclusion from hardship reason category is calculated by dividing the exclusion from hardship reason category by the total number of gas customers excluded from hardship programs.
Figure 3.30	Electricity and gas customers receiving an energy concession by state/jurisdiction – 2020–21	Schedule 3 tab <i>"Concessions"</i>	N/A
Figure 3.31	Residential electricity disconnections by state/jurisdiction	Schedule 3 tab <i>"Disconnections Resi"</i>	N/A
Figure 3.32	Residential electricity disconnections by retailer	Schedule 3 tab <i>"Disconnections Resi"</i>	Percentage for each retailer category calculated by dividing the total number of residential electricity disconnections for each retailer category by the total number of residential electricity customers for each retailer category.
Figure 3.33	Residential electricity disconnections and reconnections	Schedule 3 tab <i>"Disconnections Resi"</i>	Residential electricity reconnections with 7 days calculated by multiplying percentage of residential electricity customers reconnected within 7 days by total number of residential electricity customers disconnected.
Figure 3.34	Residential electricity customers' debt at disconnection	Schedule 3 tab <i>"Disconnection Resi by debt"</i>	Monetary debt categories for 2020–21 and 2021–22 are the cumulative totals of residential electricity customers disconnected with debts in Q1, Q2, Q3 and Q4 for the respective years.
Figure 3.35	Residential electricity disconnection by customer profiles	Schedule 3 tab <i>"Disconnection by type"</i>	Percentage of disconnection customer profile categories is equal to residential electricity disconnection customer profile category totals divided by total number of residential electricity customers disconnected.

Figure	Data	Data source	Calculation
Figure 3.36	Residential gas disconnections by state/jurisdiction	Schedule 3 tab “Disconnections Resi”	N/A
Figure 3.37	Residential gas disconnections by retailer	Schedule 3 tab “Disconnections Resi”	Percentage for each retailer category calculated by dividing the total number of residential electricity disconnections for each retailer category by the total number of residential electricity customers for each retailer category.
Figure 3.38	Residential gas disconnections and reconnections	Schedule 3 tab “Disconnections Resi”	Residential gas reconnections with 7 days calculated by multiplying percentage of residential electricity customers reconnected within 7 days by total number of residential gas customers disconnected.
Figure 3.39	Residential gas customer debt at disconnection	Schedule 3 tab “Disconnection Resi by debt”	Monetary debt categories for 2020–21 and 2021–22 are the cumulative totals of residential gas customers disconnected with debts in Q1, Q2, Q3 and Q4 for the respective years.
Figure 3.40	Residential gas disconnection by customer profile	Schedule 3 tab “Disconnection by type”	Percentage of disconnection customer profile categories is equal to residential gas disconnection customer profile category totals divided by total number of residential gas customers disconnected.
Figure 3.41	Small business electricity disconnections by state/jurisdiction	Schedule 3 tab “Disconnections SmlBus”	N/A
Figure 3.42	Small business gas disconnections by state/jurisdiction	Schedule 3 tab “Disconnections SmlBus”	N/A
Figure 3.43	Small business electricity customers' debt at disconnection	Schedule 3 tab “Disconnection SmlBus by debt”	Monetary debt categories for 2020–21 and 2021–22 are the cumulative totals of small business electricity customers disconnected with debts in Q1, Q2, Q3 and Q4 for the respective years.
Figure 3.44	Small business gas customers' debt at disconnection	Schedule 3 tab “Disconnection SmlBus by debt”	Monetary debt categories for 2020–21 and 2021–22 are the cumulative totals of small business gas customers disconnected with debts in Q1, Q2, Q3 and Q4 for the respective years.
Figure 3.45	Residential electricity customers referred by retailers to credit collection agencies by state/jurisdiction	Schedule 2 tab “Resi Elect Cust#s & Mkt Contr” Schedule 3 tab “Credit collection”	Percentage of residential electricity customers referred by retailers to credit collection agencies is calculated by calculating the number of customers referred to external credit collection agency for debt recovery in Q1, Q2, Q3 and Q4 for the respective years. This total is then divided by the total number of residential electricity customers for the respective year.
Figure 3.46	Residential gas customers referred by retailers to credit collection agencies by state/jurisdiction	Schedule 2 tab “Resi Gas Cust#s & Mkt Contr” Schedule 3 tab “Credit collection”	Percentage of residential gas customers referred by retailers to credit collection agencies is calculated by calculating the number of customers referred to external credit collection

Figure	Data	Data source	Calculation
			agency for debt recovery in Q1, Q2, Q3 and Q4 for the respective years. This total is then divided by the total number of residential gas customers for the respective year.
Figure 3.47	Residential electricity customers credit defaults and credit reversals	Schedule 3 tab “ <i>Credit collection</i> ”	Credit defaults is the cumulative total of credit defaults for residential electricity customers in Q1, Q2, Q3 and Q4 for the respective years. Credit default reversals is the cumulative total of credit default reversals for residential electricity customers in Q1, Q2, Q3 and Q4 for the respective years.
Figure 3.48	Residential gas customers credit defaults and credit reversals	Schedule 3 “ <i>Credit collection</i> ”	Credit defaults is the cumulative total of credit defaults for residential gas customers in Q1, Q2, Q3 and Q4 for the respective years. Credit default reversals is the cumulative total of credit default reversals for residential gas customers in Q1, Q2, Q3 and Q4 for the respective years.
Figure 4.1	Customer complaint by complaint category	Schedule 3 tab “ <i>Complaints by type – Resi</i> ” Ombudsman complaint data provided by jurisdictional Ombudsman	Smart meter compliant category cumulative total of smart meter installation, smart meter installation delay, smart meter deenergisation, smart meter data, smart meter privacy and smart meter cost.
Figure 4.2	Ombudsman complaints compared to residential complaints	Schedule 3 “ <i>Complaints by type – Resi</i> ” Ombudsman complaint data provided by jurisdictional Ombudsman	Number of jurisdictional Ombudsman complaints divided by total number of residential complaints for each quarter.

Appendix 8: Distribution of low-income household maps

Refer to AER's *2021-22 Annual Retail Market Report* webpage.