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Retail energy markets

Retail energy markets are the final link in the energy supply chain, providing an interface for energy retailers to sell electricity, gas and energy services to residential and small business customers.¹ The National Energy Customer Framework (NECF) and the Energy Retail Code of Practice (Victoria) regulates the sale and supply of electricity and gas to retail customers.²

Retailers purchase electricity and gas either from direct contracts with suppliers or from wholesale markets and on-sell it to consumers.³ Consumers are generally able to choose the retailer they purchase energy from based on the price and suitability of services available.⁴

Retailers are exposed to financial risk through spot price volatility in wholesale electricity and gas markets. To manage this, most retailers purchase hedging contracts that limit part or all of the wholesale price they pay (section 3.5). Hedging enables retailers to offer stable prices to consumers, so that consumers have more predictable energy bills instead of bearing the financial risk of more volatile wholesale energy prices.

Consumers continue to seek more autonomy over their energy costs through installation of consumer energy resources – such as rooftop solar and home batteries – with residential solar PV installed in the National Electricity Market (NEM) now exceeding 17 gigawatts (GW). This is equivalent to 23% of generation capacity across the NEM (chapter 3).

Following the significant market events in winter 2022, retail electricity offers (both market and standing) increased across NEM regions.⁵ This is the largest increase since 2012–13 based on median offers over the period (Figure 7.4 and Figure 7.5).⁶ Gas offers increased in all regions, with Victoria seeing the most significant increases. The change was largely driven by material increases in wholesale energy costs of both gas and electricity. Further analysis and more up-to-date data will be provided in the AER's forthcoming Annual retail markets report 2022–23.⁷

As higher wholesale energy costs continue to flow through to retail costs, price increases will continue to be felt by customers. Governments have implemented significant measures to shield consumers from affordability pressures through fuel price caps on coal and gas, energy relief funds, and investigating how demand-side resources can ease pressure and support an orderly energy transition.

1 Residential customers and business customers (who consumer energy at business premises below the upper consumption threshold) are considered 'small customers' under the National Energy Retail Law. The term 'small customers' is used throughout this report to refer to both residential and small business customers. Where required, the terms 'residential' and 'small business' are used separately.

2 The National Energy Customer Framework is a suite of legal instruments. For further information see AEMC, [National Energy Customer Framework](#), Australian Energy Market Commission, accessed 30 August 2023.

3 Electricity generally must be purchased through the National Electricity Market, but gas is more likely to be purchased directly from suppliers (around 85%) than through the Domestic East Coast Gas Market.

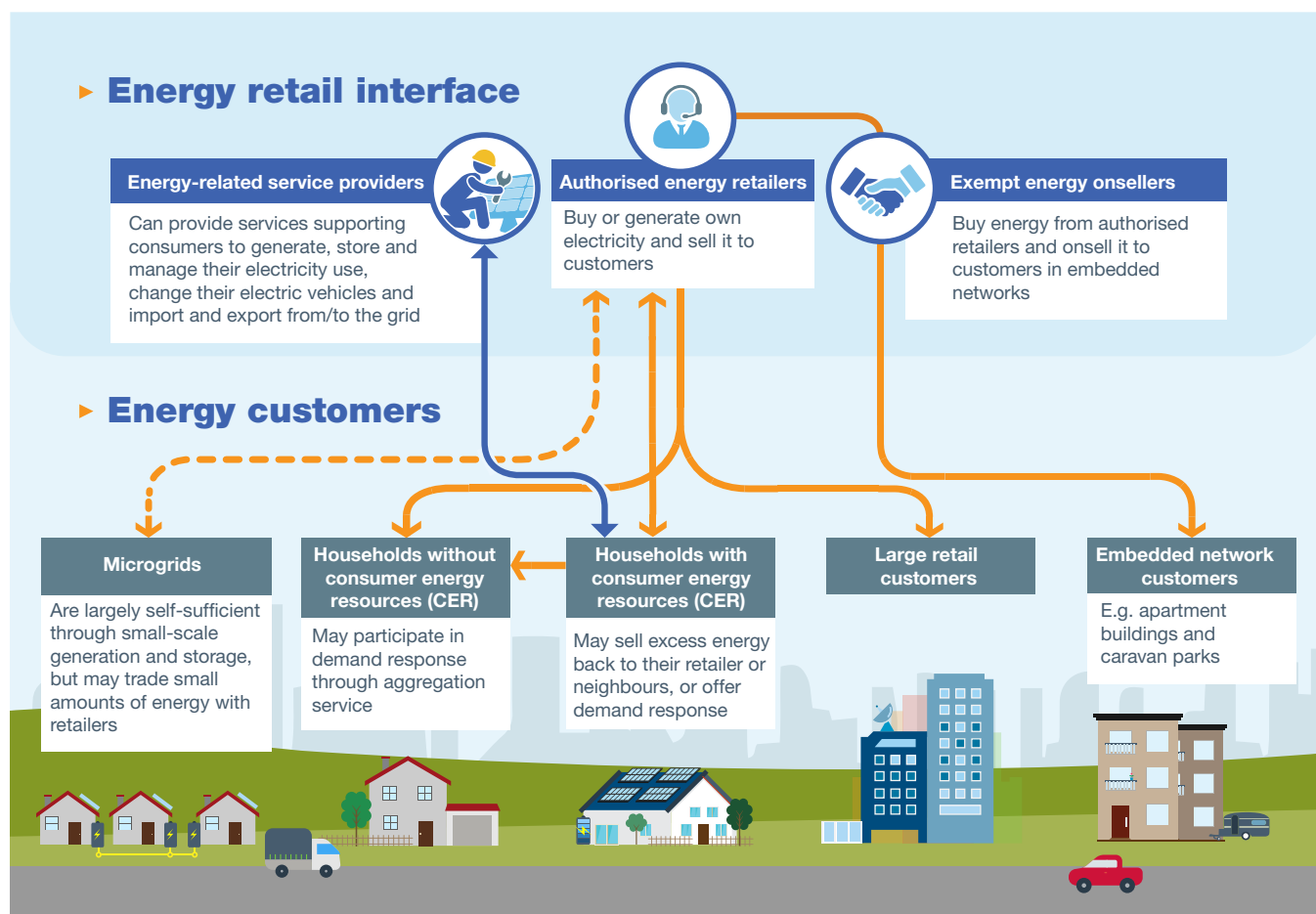
4 Consumers in embedded networks – such as those in some apartment buildings, retirement villages or caravan parks where the site owner sells the electricity – may have less opportunity to choose a retailer. This could be because of the different metering and wiring arrangements of the embedded network, or lack of authorised retailers that will provide an 'energy only' contract. Consumers experiencing vulnerability may also face challenges in choosing a retailer (see section 7.6.7 for more information).

5 Based 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.

6 Based on data informing Figure 7.4 and Figure 7.5 and equivalent data and charts in previous years' State of the energy market reports.

7 The AER's [annual Retail markets report is published in November, and Retail energy market performance updates are published quarterly](#).

Figure 7.1 Retail energy market supply chain



Box 7.1 The AER's role in retail energy markets

The Australian Energy Regulator (AER) regulates retail energy markets in jurisdictions that have implemented the National Energy Retail Law, including electricity and gas customers in Queensland, New South Wales (NSW), Victoria (electricity connection for retail customers only), South Australia, the Australian Capital Territory (ACT) and Tasmania (electricity customers only). We provide protections and support for energy consumers (particularly residential and small business customers) so they can participate confidently and effectively in those markets.

We are responsible for:

- › setting a price cap on standing offers for electricity in south-east Queensland, NSW and South Australia – this cap also acts as a reference price for market offers
- › maintaining an energy price comparator website (energymadeeasy.gov.au) to help residential and small business customers understand the range of offers in the market, make better choices about those offers and be aware of their rights and responsibilities when dealing with energy providers
- › assessing applications from businesses looking to become energy retailers and granting exemptions from the requirement to hold a retailer authorisation
- › administering a retailer of last resort scheme, which protects customers and the market if an energy retailer fails
- › developing guidelines for energy retail, wholesale, distribution and transmission markets, and corporate and consumer matters
- › monitoring and enforcing compliance (by retailers, exempt sellers and distribution network service providers) with obligations in the Retail Law, Rules and Regulations
- › approving policies energy retailers must implement to assist customers who are facing financial hardship and looking for help to manage their bills
- › reporting on the performance of the market and energy businesses, including information on energy affordability and trends in disconnection of customers for non-payment of energy bills.

7.1 Retail market snapshot

Since the last *State of the energy market* report:

- › Retail prices declined from the significant market events of winter 2022 but remained higher than previous years due to higher wholesale and contract prices (section 7.4).
- › These pressures were reflected in higher default market offer (DMO) prices for 2023–24 (section 7.3.2), with standing offers revised upwards from 1 July 2023.
- › Market offers, typically reset in July each year, are trending upwards to accommodate higher wholesale prices. Bill increases from August (monthly billing cycles) to October 2023 (quarterly billing cycles) are likely to occur.
- › With slow wage growth and broader cost-of-living pressures, consumers are not well-placed to absorb sharp increases in energy prices. Energy affordability will likely continue to be a challenge for the foreseeable future.
- › Consumer debt levels may continue to escalate from late 2023 to early 2024. Increased debt levels and other indicators of financial difficulties have already been observed in early 2023 data.
- › The AER released its *Towards energy equity* strategy and Better Bills Guideline to address concerns about the impact of these market developments on consumers experiencing vulnerability, who may be less able to adopt technology, modify their energy use or shop around for a cheaper energy contract.
- › In December 2022 the Australian Government announced measures to limit gas and coal prices through temporary price caps, provide energy bill relief for households and businesses and drive investment in clean energy generation and storage.
- › In its 2023–24 Budget, the Australian Government provided up to \$3 billion towards energy bill rebates of up to \$500 for eligible households and \$650 for eligible small businesses. State and territory governments commenced rolling out the rebate schemes in all NEM regions in July 2023.

7.2 Energy market regulation

Five jurisdictions – Queensland, NSW, South Australia, Tasmania and the ACT – apply a common national framework for regulating retail energy markets. The framework applies to electricity retailing in all 5 jurisdictions and to gas retailing in Queensland, NSW, South Australia and the ACT.

The Retail Law operates alongside the Australian Consumer Law to protect small energy consumers in their electricity and gas supply arrangements. It sets out protections for residential consumers and small businesses.⁸ Victoria does not apply the national framework but applies similar regulatory provisions.⁹

The Retail Law and equivalent arrangements in Victoria focus on consumer protections related to the traditional retailer–customer relationship. Protections are generally stronger for consumers supplied through an authorised retailer than consumers in embedded networks or entering solar power purchase agreements.¹⁰

State and territory-based regulators regulate electricity prices in regional Queensland, Victoria, Tasmania and the ACT.¹¹ Since 1 July 2019 the AER has set caps on ‘standing offer’ prices¹² for electricity through the default market offer in jurisdictions without state-based price regulation (section 7.4).

This chapter focuses on the 5 jurisdictions where the AER has regulatory responsibilities, but also covers the Victorian market where possible. Western Australia and the Northern Territory apply separate regulatory arrangements and are not covered in this report.

7.2.1 Sellers and resellers of energy services

Market participants that sell and resell energy and services to consumers are classified into:

- › those authorised as retailers under the Retail Law
- › those exempt from the requirement to be authorised¹³
- › those offering energy products and services beyond the scope of the Retail Law – such as energy management services, solar and storage products and off-grid energy systems.

Only customers of authorised retailers enjoy the full protections in the Retail Law, which is administered and enforced by the AER. Other consumers may be covered by the broader Australian Consumer Law, which is administered and enforced jointly by the ACCC and the state and territory consumer protection agencies.

7.2.2 Authorised energy retailers

Under the Retail Law a person must hold a retailer authorisation (unless exempt from the requirement) to sell electricity or gas. The AER issues retailer authorisations and seeks to ensure compliance with consumer protection and other obligations under the Retail Law. An authorisation covers energy sales to consumers in all 5 participating jurisdictions.¹⁴

The AER and the Essential Services Commission (ESC) (Victoria) are responsible for authorising new retailers into the energy market.

8 The thresholds for who meets the criteria of a residential customer or small business varies between jurisdictions. For example, in jurisdictions where the Retail Law applies, it includes those consuming fewer than 100 megawatt hours (MWh) of electricity or 1 terajoule (TJ) of gas per year. For electricity, in South Australia, small electricity customers are those consuming fewer than 160 MWh per year. In Tasmania, the threshold is 150 MWh per year.

9 Changes to the Victorian framework, including recommendations adopted from the Thwaites *Independent review into the electricity & gas retail markets in Victoria* (August 2017), have seen greater divergence between the Victorian and national frameworks.

10 Embedded networks are private electricity networks serving multiple customers, such as at caravan parks and shopping centres.

11 These include the Queensland Competition Authority in regional Queensland, Essential Services Commission in Victoria, Independent Competition and Regulatory Commission in the ACT and Office of the Tasmanian Economic Regulator in Tasmania.

12 Standing offers apply where a customer does not enter a market contract. The terms and conditions of standing offers are prescribed in the National Energy Retail Rules and include consumer protections not required in market retail contracts, such as access to paper billing, minimum periods before bill payment is due, a set period for reminder notices, and no more than one price change every 6 months.

13 In Victoria, where the Retail Law does not apply, retailers must hold a licence issued by the Essential Services Commission or seek an exemption from this requirement.

14 See the AER website for a [public register of authorised retailers and authorisation applicants](#).

7.2.3 Exempt energy sellers

An energy seller may apply to the AER or the ESC (Victoria) for an exemption from authorisation if it only intends to supply energy services to:

- › a limited customer group (for example, at a specific site or incidentally through a relationship such as a body corporate)
- › supplement its customers' primary energy connection
- › sell or supply electricity ancillary to telecommunication services, such as data centres.

As of August 2023, over 3,700 unique businesses were registered in the AER's public register of exemptions to on-sell energy within an embedded network (that is, a small private network whose owner sells electricity to other parties connected to the network).¹⁵ Shopping centres, retirement villages, caravan parks and apartment complexes are examples of entities that might run an embedded network. Solar power purchase agreement providers are also covered by the AER's and ESC's exemptions frameworks.

The Australian Energy Market Commission (AEMC) cited stakeholder estimates that up to 500,000 consumers purchase energy through embedded networks.¹⁶ Exemption holders must follow strict conditions and meet a range of obligations to their customers (detailed in the AER's guidelines). Conditions are based on the obligations that apply to authorised retailers and distribution network service providers, but are a lighter, less prescriptive form of regulation.

7.3 Energy bills

Energy bills are a primary way for energy retailers to communicate with customers. Energy bills show a customer's energy consumption over a period of time, tariffs, daily supply charges and other fees and discounts. Information on bills can enable consumers to compare their current offer with others available to them. Independent comparator websites provided by the AER (energymadeeasy.gov.au) and the Essential Services Commission (Victoria) (compare.energy.vic.gov.au) enable customers to upload data from their most recent energy bills to assess against other market offers available to them (section 7.7.9).

Customers who can regularly review and, when necessary, change to a better offer usually pay lower prices. However, offers can vary significantly and hundreds of offers may be available to customers at any one time. Advertised offers frequently change, as do the terms and charges attached to an offer over time. Customers routinely report finding it difficult to compare and determine which offer is best for their situation.

7.3.1 Better Bills Guideline

Consumers expect bills to be simple, easy to understand and a source of information about how and when to pay. However, energy bills have historically been cluttered, complex and confusing, creating an unnecessary barrier for consumers to participate effectively in energy retail markets and find the best deal.

To address this, in March 2022 the AER released the Better Bills Guideline (Version 1). The guideline outlined requirements for retailers to prepare and issue bills that make it easy for small customers to understand billing information.

In January 2023, following public consultation, the AER published an updated Better Bills Guideline (Version 2).¹⁷ Key amendments included providing clarity on the 'better offer' and self-read information requirements and, following an AEMC Rule change in October 2022, giving retailers more time to comply with the new provisions in the Guideline.¹⁸

The guideline limits the amount of content allowed on the first page of bills so that consumers can see the essentials at first glance. It requires the retailer to clarify whether they have a better offer available, under the heading 'Could you save money on another plan?'. Elsewhere on the bill, retailers must include a simple summary of the existing plan, stating the key features and when any benefits are due to expire.

¹⁵ The number of unique businesses registered as exempt energy sellers does not equate to the number of embedded network sites, as a business may on-sell to customers across multiple sites.

¹⁶ AEMC, [Updating the regulatory frameworks for embedded networks](#), Australian Energy Market Commission, 20 June 2019.

¹⁷ AER, [Better Bills Guideline – Version 2](#), Australian Energy Regulator, 30 January 2023.

¹⁸ AEMC, [National Energy Retail Amendment \(Delaying implementation of the AER Billing guideline\) Rule 2022 No. 2](#), Australian Energy Market Commission, 13 October 2022.

The guideline aims to make it easier for consumers to:

- › pay their energy bills
- › understand the bill calculation and ensure their bill conforms to their contract
- › query their bill
- › access interpreter services and seek financial assistance
- › report a fault or emergency
- › understand their usage to help them use energy efficiently, compare offers and consider new types of energy services.

In July 2023, the AER notified authorised retailers that the guideline applies to all small customers of an authorised retailer, including those within embedded networks. In August 2023, the AER updated the guideline to require retailers to provide standard information about energy relief rebates.¹⁹

7.3.2 Components of electricity bills

Retail energy bills are largely reflective of the cost of producing and supplying energy. A typical residential electricity retail bill comprises the following costs:

- › wholesale energy purchased through spot and hedge wholesale markets (including managing the risk of wholesale price volatility and price variances across regions)
- › network costs, including transporting electricity through transmission and distribution networks, feed-in tariffs for rooftop solar PV systems and metering costs
- › costs associated with complying with environmental schemes, such as renewable energy targets and energy efficiency measures
- › servicing customers, including provision of billing and customer service
- › marketing campaigns to attract and retain customers
- › the retailer's margin (profit).

The proportion of each cost as a component of electricity bills varies by jurisdiction.

7.3.3 Wholesale costs

Wholesale costs are a significant component of electricity bills. Retailers purchase energy in wholesale markets for sale to customers. Retailers generally charge their customers fixed prices for energy but need to purchase energy at variable prices in wholesale markets. This means that retailers are exposed to price risk, where they may need to purchase energy at higher prices than they charge their customers. Retailers generally manage this risk by considering price volatility when setting retail contract prices and by entering hedge contracts that lock in prices for their future wholesale purchases (chapter 3). Alternatively, they might own generation assets or enter demand response contracts to manage risk (section 7.7.4).

7.3.4 Network costs

The AER regulates network charges, which cover the efficient costs of building and operating electricity networks and provide a commercial return to the network service provider's financiers. Across the NEM, distribution costs are the largest component of network costs. Transmission costs are the next biggest component and metering costs make up the balance.

Several factors will have an impact on network costs, such as where the customer is being served (central business district, urban or rural), area density and local terrain. Network costs are generally higher for consumers located in less densely populated areas. The relative efficiency of each network service provider also partly explains differences in network costs (chapter 4, section 4.15.1).

There are likely to be upward pressures on regulated network costs over the next few years, driven by inflation, the impact of higher interest rates and forecast increases in capital expenditure (chapter 4, section 4.13).

¹⁹ AER, [Better Bills Guideline – Version 2 update](#), Australian Energy Regulator, accessed 28 August 2023.

7.3.5 Environmental costs

Environmental costs are associated with environmental schemes at both national and state levels, requiring retailers to procure electricity from renewable sources and improve customer energy efficiency. Around 70% of environmental costs are attributable to the national Renewable Energy Target (RET), including both large-scale and small-scale developments. At state levels, environmental costs include rebates for customer energy resources, feed-in tariffs for solar PV installations and state government operated energy efficiency schemes.

7.3.6 Retail costs

Retail costs fall into 2 main categories:

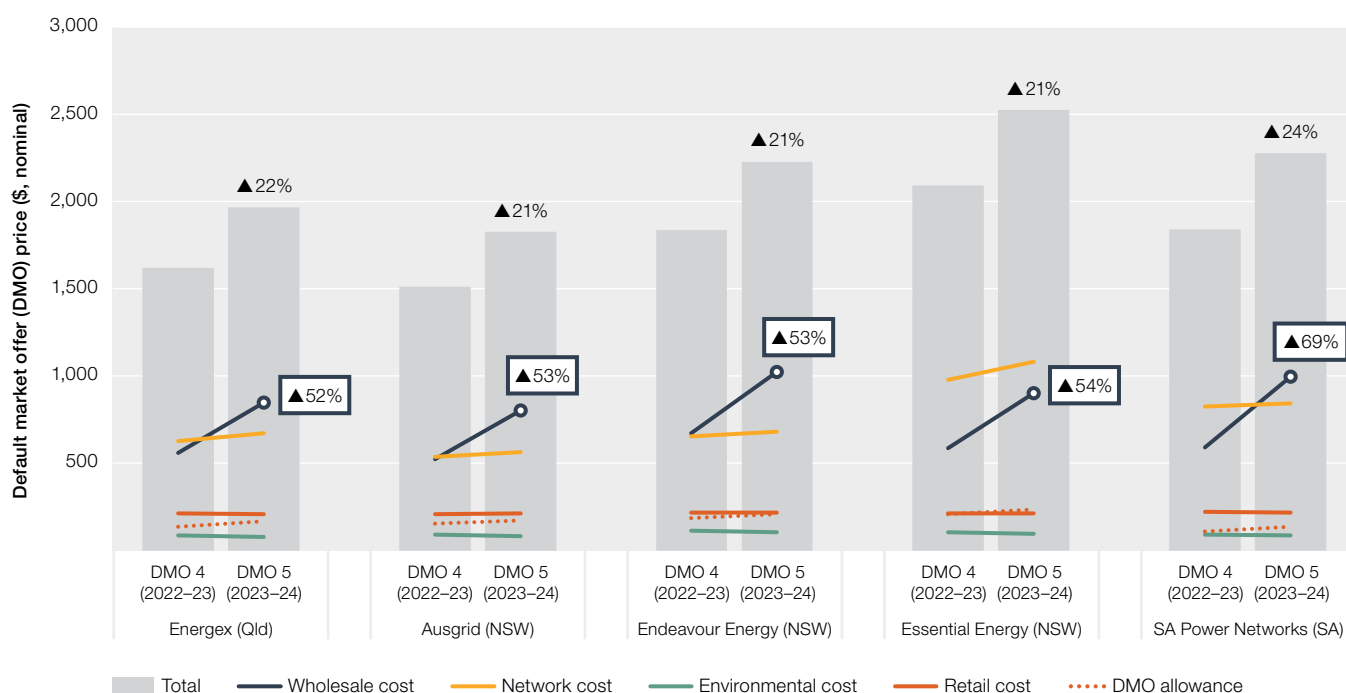
- Costs of servicing customers, such as managing billing systems and debt, handling customer enquiries and complying with regulatory obligations. These costs do not vary significantly across jurisdictions.
- Customer acquisition and retention costs, such as marketing and other activities to gain or retain customers. These costs tend to be higher in jurisdictions with high rates of customer switching. In theory, these costs should be offset by reduced retailer profit margins that are driven down due to competition, but there is a risk that competition may increase energy bills for customers if the costs of competing outweigh competition benefits from efficiency and innovation.

7.3.7 Components of the default market offer

The AER calculates a representative retail price each year known as the default market offer (DMO) reference price. The cost components of each DMO reference price include wholesale, network, environmental and retail costs and margin. The DMO acts as both a price cap for standing offers, as well as a reference price that discounts and market offers must be measured against. The role of the DMO is further discussed in section 7.3.9.

In May 2023, the AER published the DMO 5 determination, which illustrates the proportions of each cost component and changes from the preceding year (Figure 7.2).

Figure 7.2 Components of the default market offer



Note: Comparison of cost components calculated for the 2022-23 (DMO 4) and 2023-24 (DMO 5) prices, for residential customers without controlled load. Prices include GST. Values are nominal. In previous years this data was measured in cents per kilowatt hour and included totals for all NEM regions, enabling like-for-like comparison to Figure 7.3. This data was unavailable for 2023.

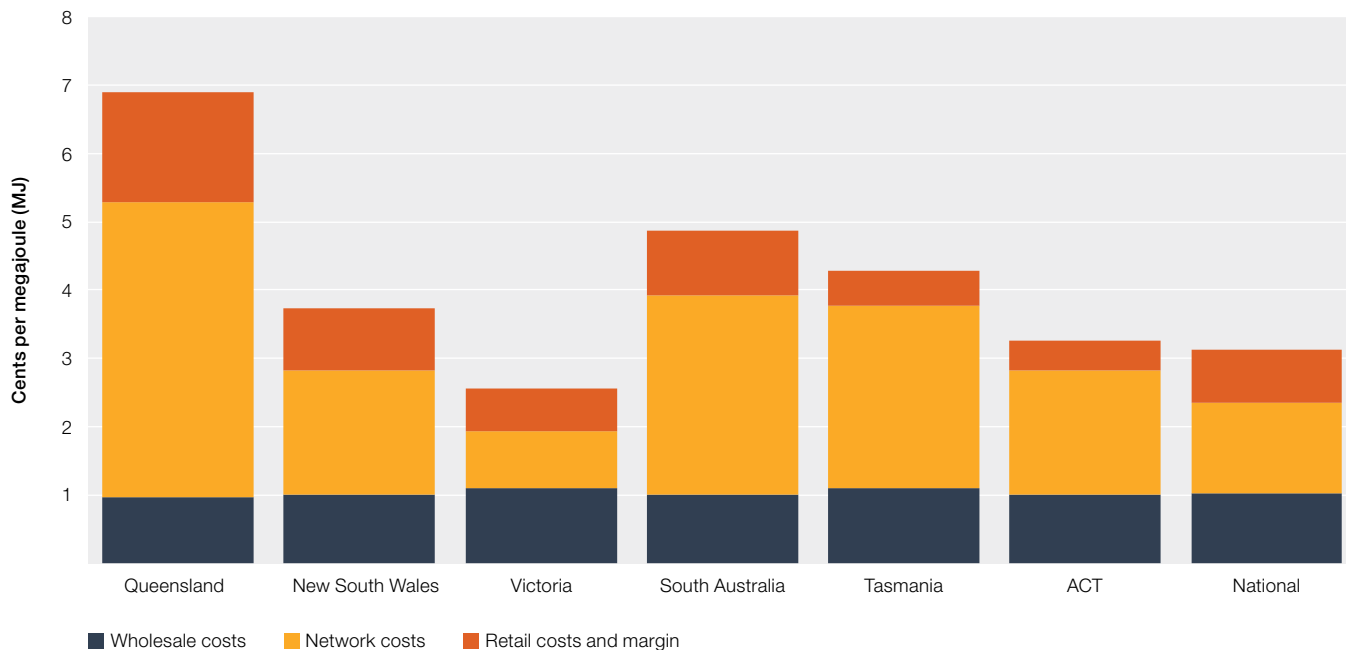
Source: AER, [Default market offer prices 2023-24](#), May 2023.

Wholesale costs were calculated to make up 28% to 36% of retail electricity bills for the 2022-23 DMO 4. In 2023-24, this has increased sharply to between 36% and 46% of the overall price.

7.3.8 Components of gas bills

The composition of a retail gas bill is less transparent than it is for electricity due to the relative fragmentation of gas markets, the different regulatory arrangements applying to gas pipelines and the absence of a regulatory responsibility to regularly analyse the different cost components. Estimates from the most recent comprehensive data (published in 2017) show that nationally, gas pipeline charges made up over 40% of a residential gas bill in that year, on average.

Figure 7.3 Composition of a residential bill – gas



Note: Data are estimates at 2017. Average residential customer prices excluding GST (real \$2018–19). Percentages may not add to 100% due to rounding.

Source: Oakley Greenwood, Gas price trends review 2017, March 2018.

Analysts suggest that residential gas bill prices remained relatively steady from 2017 until 2022 (Figure 7.11), but it is likely the proportions of gas bill components have changed. Due to the historical lack of transparency in pricing in gas wholesale markets and segments of gas transportation, it is difficult to estimate these changes with confidence. However, a range of indicators suggest that changes in both level and proportion of gas bills may be material.

The ACCC published an analysis of gas retail bill components in June 2021 and observed that retail margins up to 2018 reflected the influence of legacy gas contracts with cheap prices.²⁰

The ACCC expected that the proportion of gas supplied through those legacy contracts was likely to decline materially from 2021. Wholesale costs and retail margins after that time would be impacted by wholesale market conditions at the time of renegotiation, by the prices at which retailers were able to replace legacy contracts with new gas supply agreements and by the extent of competition in gas retail.

Since 2017, revenue per customer on scheme pipelines subject to the building block regulatory model has stayed relatively steady and, in some cases, decreased materially (chapter 6). However, those pipelines make up only a proportion of transportation requirements because key north to south transmission pipelines are not subject to that form of regulation.

More analysis on gas wholesale markets and regulated gas pipelines is set out in chapters 5 and 6.

²⁰ ACCC, [Gas inquiry 2017–25 interim report](#), Australian Competition and Consumer Commission, January 2023, section 5.

7.3.9 How retail prices are set

Energy retailers in southern and eastern Australia are responsible for setting prices for energy market offers. Market offers are energy contracts advertised by retailers that consumers actively enter into. Alongside market pricing, government agencies regulate prices for electricity standing offers. Standing offers are energy contracts that consumers are placed on by default if they do not enter into a market contract.²¹

Between 2009 and 2016, electricity retail price regulations were removed in Victoria, South Australia, NSW and south-east Queensland following a determination by the AEMC that markets in those states were effectively competitive. In July 2019, governments reintroduced forms of price control in response to later market reviews, as summarised in Table 7.1.

Table 7.1 Price controls by NEM region

| Region | Mechanism | Administrator | Approach |
|-----------------------|--|---|--|
| South-east Queensland | Default market offer | AER | Sets a cap on standing offer electricity prices for residential and small business customers and provides a reference price for comparing offers. |
| NSW | | | |
| South Australia | | | |
| Victoria | Victorian default offer | Essential Services Commission | Sets a cap on standing offer electricity prices for residential and small business customers and provides a reference price for comparing offers. |
| Regional Queensland | Annual pricing proposal and government subsidy | AER / Queensland Competition Authority | Determines an annual regulated electricity price for residential and small business customers to enable comparison of offers. No price cap is imposed. The Queensland Government subsidises Ergon Energy so that regional customers do not pay more than customers in south-east Queensland. |
| Tasmania | Standing offer price approvals | Office of the Tasmanian Economic Regulator | Sets a cap on standing offer electricity prices for residential and small business customers with a regulated retailer and provides a reference point for comparing offers. |
| ACT | Price regulation of electricity supply | ACT Independent Competition and Regulatory Commission | Sets a cap on electricity prices for residential and small business customers with authorised retailer ActewAGL and provides a reference point for other customers comparing offers. |

Source: AER, [Default market offer prices 2022–23 – Final determination](#), May 2023; ESC, [Victorian Default Offer](#), accessed 21 August 2023; Queensland Competition Authority, [Regional customers](#), accessed 21 August 2023; Tasmanian Economic Regulator, [Pricing – Approvals](#), accessed 21 August 2023; Independent Competition and Regulatory Commission, [Price Regulation of Electricity Supply](#), accessed 21 August 2023.

Gas price deregulation occurred along similar time frames to electricity price deregulation but price controls have not been reintroduced. In July 2017 NSW became the last jurisdiction to deregulate retail gas prices for small customers.

In June 2020 the Australian Government introduced further price protections. Under Part XICA (which relates to prohibited conduct in the energy market) of the *Competition and Consumer Act 2010*, retailers are required to pass on to customers any sustained and substantial decreases in the costs of electricity. The ACCC is responsible for investigating contraventions and published guidelines in May 2020.²² In April 2021, the ACCC published its findings on retailers' compliance with the legislation and stated they had approached retailers that may not have adequately passed on cost savings to their customers.²³ The ACCC continues to monitor compliance with Part XICA, which also prohibits certain behaviour by generators in relation to access to electricity hedging contracts and spot market bidding.

²¹ AER, [Default market offer prices 2022–23 – Final determination](#), Australian Energy Regulator, May 2023, accessed 5 September 2023, section 3.1.

²² ACCC, [Guidelines on Part XICA – Prohibited conduct in the energy market](#), Australian Competition and Consumer Commission, 11 May 2022, accessed 11 August 2023.

²³ ACCC, [\\$900 million in electricity bill savings available to households](#) [media release], Australian Competition and Consumer Commission, 13 April 2021, accessed 15 September 2022.

Box 7.2 Default market offer

The default market offer (DMO) is the maximum price an electricity retailer can charge a standing offer customer each year based a set amount of usage.²⁴ DMO prices vary by customer type, including residential customers with controlled load, residential customers without controlled load and small business customers without controlled load. A customer might be on a standing offer when their market offer expires or if they have never switched to a retailer's market offer.

The scheme was introduced in 2019, following concerns raised by the Australian Competition and Consumer Commission (ACCC) that standing offer contracts:

- › were not working as an effective safety net
- › were unjustifiably expensive, with retailers having incentives to increase standing offer prices as a basis to advertise artificially high discounts
- › penalised customers who had not taken up a market offer, making them a form of 'loyalty tax'.

The AER determines DMO prices each year for residential and small business customers in NSW (Endeavour, Essential Energy and Ausgrid), south-east Queensland (Energex) and South Australia (SA Power Networks). The scheme caps how much retailers can charge in their standing offers, but it does not cap customers' bills.

The default prices also act as a reference against which retailers must compare their market offers to make it easier for consumers to compare offers across providers. The DMO scheme provides a fallback for those who do not engage in the market and has reduced unjustifiably high standing offer prices.

Table 7.2 shows DMO pricing since implementation by region. The AER's pricing methodology has been revised over this time and more information on the approaches and methodologies is set out in the supporting documentation for each DMO determination. However, increases between July 2022 (DMO 4) and July 2023 (DMO 5) remain largely driven by sharp wholesale price spikes in all regions, and corresponding increases in retail energy prices can also be observed in market and standing offers in 2022–23 (Figure 6.4).

Table 7.2 Default market offers for residential customers without controlled load (\$, nominal), since 2019²⁵

| | NSW | South-east Queensland | South Australia |
|---------------------------|---------------------------|-----------------------|-----------------|
| DMO 1 (2019–20) | \$1,467 – \$1,957 | \$1,570 | \$1,941 |
| DMO 2 (2020–21) | \$1,462 – \$1,960 | \$1,508 | \$1,832 |
| Change from previous year | 0.5% lower to 0.2% higher | 3.9% lower | 5.6% lower |
| DMO 3 (2021–22) | \$1,393 – \$1,907 | \$1,455 | \$1,716 |
| Change from previous year | 6.0% to 2.7% lower | 3.5% lower | 6.3% lower |
| DMO 4 (2022–23) | \$1,512 – \$2,092 | \$1,620 | \$1,840 |
| Change from previous year | 8.5% to 14.1% higher | 11.3% higher | 7.2% higher |
| DMO 5 (2023–24) | \$1,827 – \$2,527 | \$1,969 | \$2,279 |
| Change from previous year | 20.8% to 21.4% higher | 20.5% higher | 22.6% higher |

Source: AER, Default market offer prices 2023–24, 25 May 2023; AER, Default market offer prices 2022–23, 26 May 2022; AER, Default market offer prices 2021–22, 27 April 2021; AER, Default market offer prices 2020–21, 30 April 2020; AER, Default market offer prices 2019–20, 30 April 2019.

²⁴ Customers on standing offers may pay more than the DMO price if they use more electricity than the annual usage amount assumed when determining the DMO.

²⁵ Prices are estimated annual bill prices for residential customers without controlled loads.

7.4 Retail energy prices

The 2022–23 financial year saw increases to electricity and gas retail prices, primarily due to a sharp increase in wholesale costs following winter 2022. Wholesale price fluctuations tend to flow through to retail costs in the months following those fluctuations, as longer-term contract positions are adjusted.

From October 2022 to June 2023, wholesale electricity prices declined across all regions. However, wholesale prices remain high by historical standards. While they remain so, they will continue to put upward pressure on retail prices.

Similar to electricity, 2022 was a volatile year for retail gas prices. Average wholesale gas prices began increasing in 2021 and reached record highs in mid-2022 (Figure 5.2). Wholesale gas cost increases can take longer to flow through to retail prices compared with electricity. With anticipated supply constraints, gas retail prices will likely continue to face upward pressure.

7.4.1 Electricity price movements

In electricity markets, customers on market offers had bigger increases in bills compared with those on standing offers. Savings historically available to customers by shopping around for the best market offer may be less available as standing and market offer prices are converging (Figure 7.4). Retailers are finding it harder to manage their exposure to volatile wholesale prices through hedging contracts, which is particularly challenging for smaller retailers. From May to December 2022, 6 retailers formally exited the market while others stopped taking new customers or urged existing customers to switch retailers.²⁶

Across NEM jurisdictions, estimated electricity bills increased by 9% to 20% in 2022–23 from the previous year, following 2 consecutive years of decreases.²⁷ This was primarily due to a sharp increase in wholesale prices, reaching record highs in mid-2022. The drivers of increased wholesale prices included more frequent and longer outages of aging coal generation plant, increased power system security costs, 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 Russia's invasion of Ukraine.

Electricity bills for customers on market offers increased in all regions in the 2022–23 financial year except for Ergon Energy (Queensland), which has remained stable since 2016–17 relative to other distribution regions.²⁸

While standing offers have historically been higher than market offers, they have almost converged in all regions apart from TasNetworks (Tasmania). In some instances, market offers have been priced above standing offers and large discounts or savings for customers are becoming less common. While potential savings may be accessed by customers able to use price comparator websites and effectively navigate information provided by retailers, taking up a market offer no longer guarantees receiving their cheapest deal.²⁹ Standing offers also increased markedly in all distribution regions except for CitiPower (Victoria) and Evoenergy (ACT).

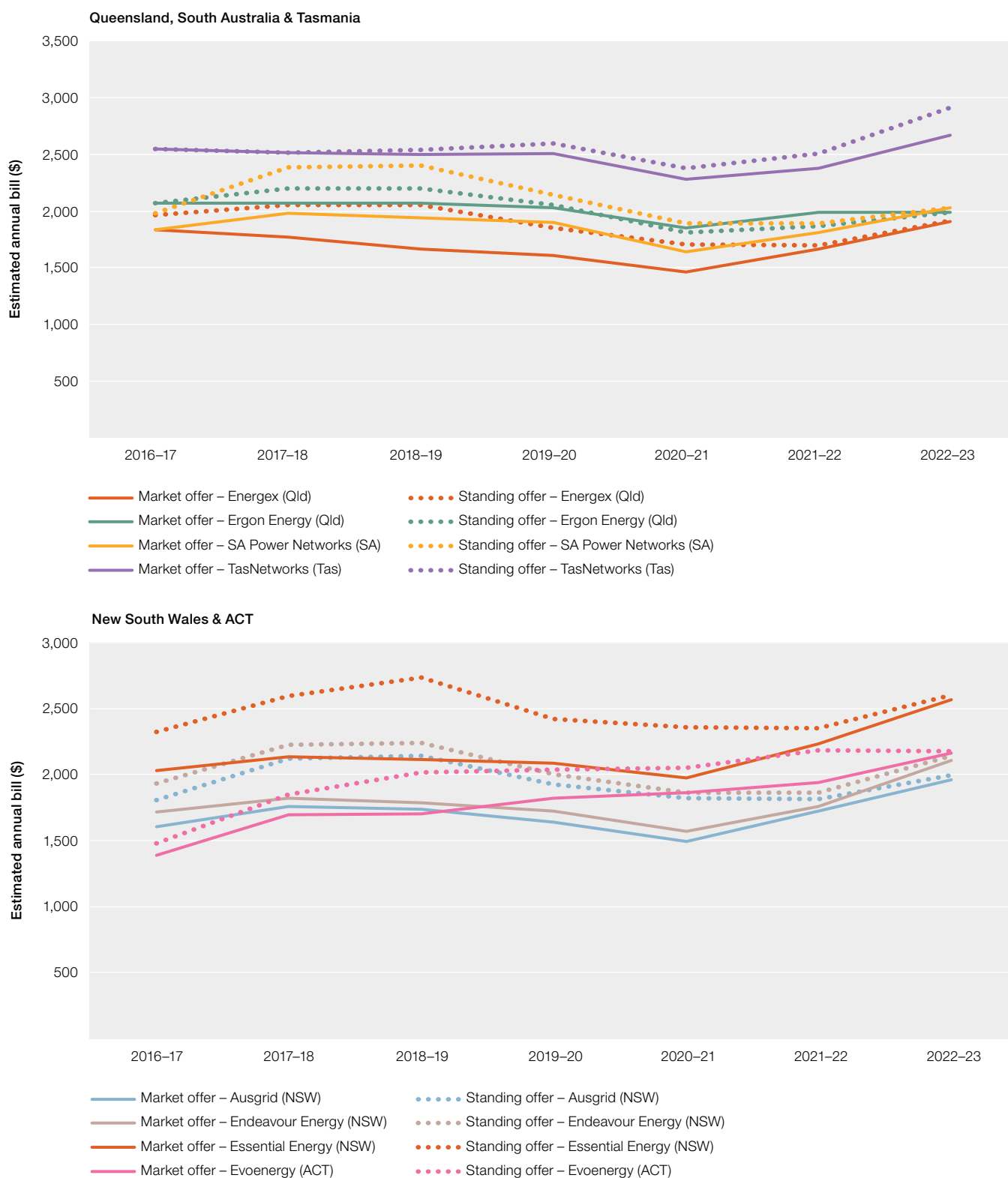
26 ACCC, [Electricity Market Inquiry Report](#), Australian Competition and Consumer Commission, 8 December 2022.

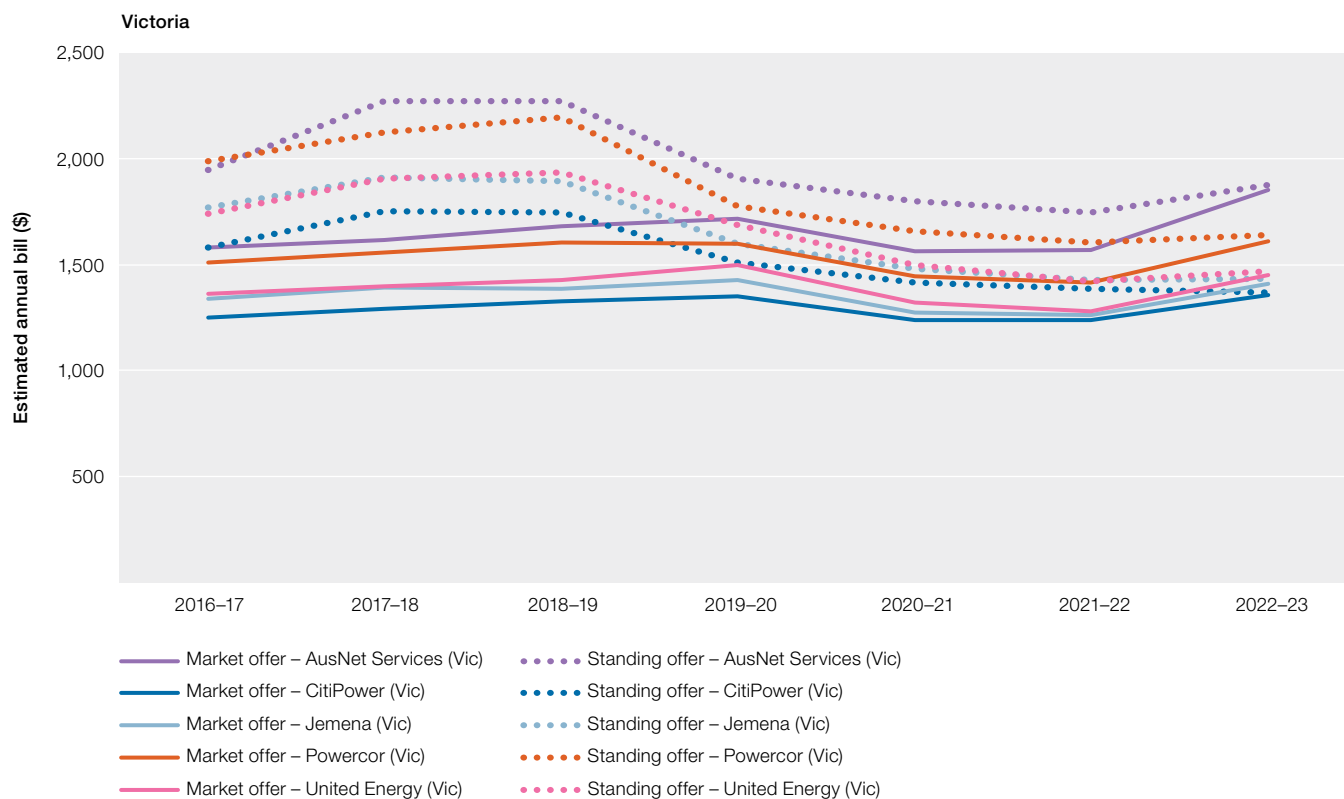
27 AER, [Annual retail markets report 2021–22](#), Australian Energy Regulator, 30 November 2022.

28 Ergon Energy is owned by the Government of Queensland and serves regional customers. As a non-competitive retailer with regulated prices, their market offers are limited, with the majority of customers on standing offers.

29 AER, [Annual retail markets report 2021–22](#), Australian Energy Regulator, 30 November 2022.

Figure 7.4 Electricity bills for customers on market and standing offers





Note: Ergon Energy's standing offer prices are set by the Queensland Competition Authority (QCA). TasNetworks' standing offer prices are set by the Office of the Tasmanian Economic Regulator (OTTER). Standing offer prices on the Victorian distribution networks are set by the Essential Services Commission (ESC). Evoenergy's standing offer prices are set by the Independent Competition and Regulatory Commission (ICRC). Energex, SA Power Networks, Ausgrid, Endeavour Energy and Essential Energy's standing offer prices are set by the retailers (capped at DMO). Based on single rate offers for residential customers and average consumption in each distribution area. Average consumption for 2020-21 has been applied to all periods. Some offers listed may not be available to all customers in a region. The AER will update its analysis on more recent offers in the Annual retail performance report 2023. On Ergon Energy's network there are few market offers available and some offers are restricted to specific geographic areas.

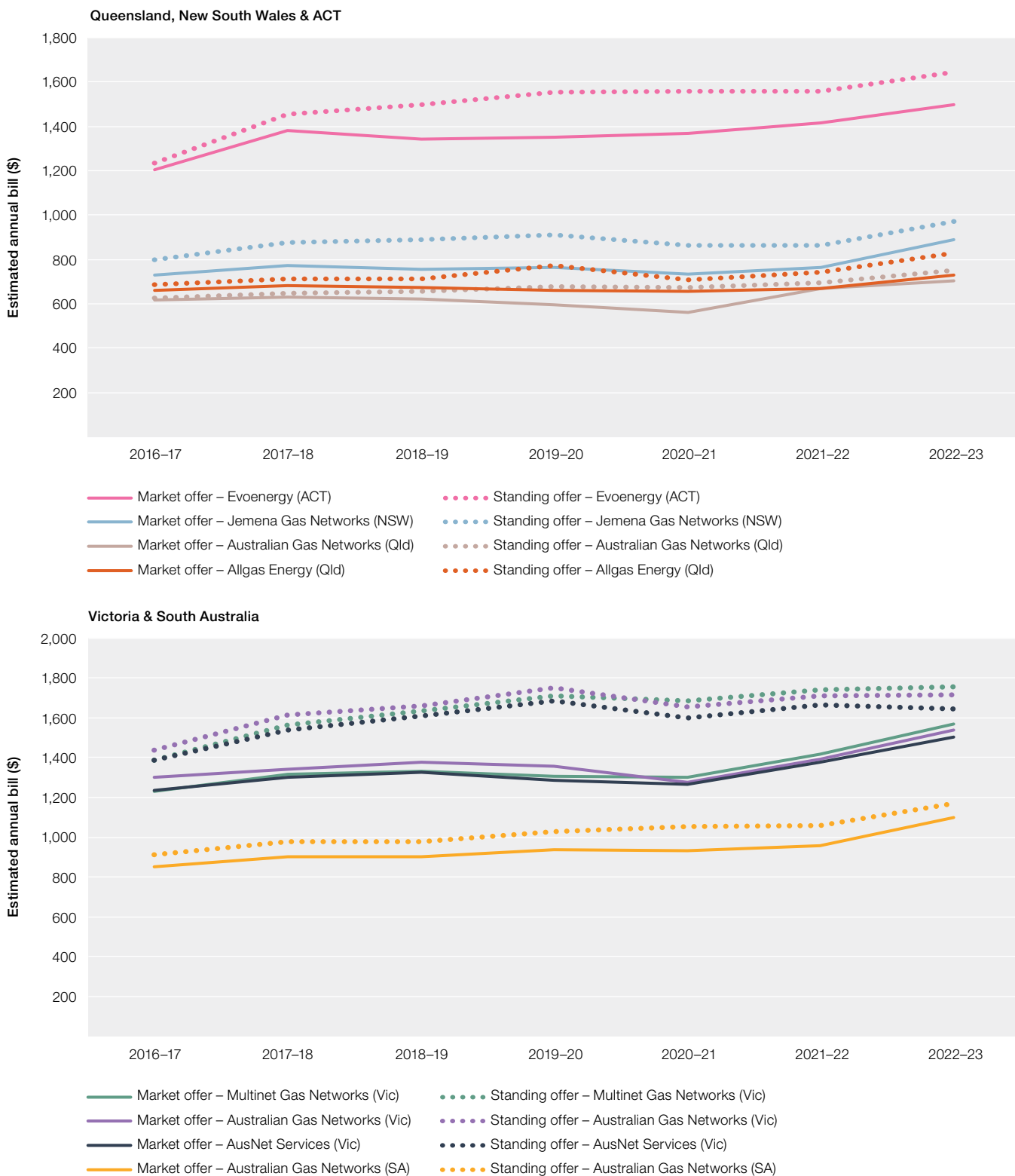
Source: Victorian Energy Compare (DELWP). Consumption based on Economic benchmarking regulatory information notice (RIN) responses.

7.4.2 Gas price movements

In 2022-23, market offers for gas increased in every jurisdiction (Figure 7.5). Estimated annual customer bills in 2022-23 ranged from \$703 in Queensland to \$1,647 in the ACT.³⁰ Standing offer prices for gas also increased across jurisdictions except for Victoria, where they remained relatively stable (Figure 7.5). Gas market offers increased in all jurisdictions and standing offers increased except for some networks in Victoria, where they remained static or reduced slightly (Figure 7.5).

³⁰ Estimated annual customer bills for generally available flat rate offers, by distribution company.

Figure 7.5 Gas bills for customers on 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 (AER) and Victorian Energy Compare (DELWP). Consumption based on Frontier Economics report to the AER, *Residential energy consumption benchmarks*, December 2020.

7.4.3 Electricity price forecasts

Forecasting remains difficult given the impacts of price caps and potential future government interventions. However, there are a range of factors that may put ongoing upward pressure on retail prices.

Wholesale costs

While wholesale prices have subsided since a peak in 2022, the market remains vulnerable to supply or demand shocks. Reliability issues with coal-fired generation assets and managing the increasingly peaky shape of customer demand could also put upward pressure on wholesale costs.

Network costs

In coming years, the impact of high inflation and higher costs of capital will flow through to network costs. With new and higher jurisdictional scheme costs and previously under-recovered distribution revenues in some regions, this is likely to put upward pressure on electricity prices.

Retail costs

The retail component of costs may also face upward pressure due to inflation and increased costs in managing debt for small customers, particularly small business customers. Costs associated with meeting the AEMC's recommendation to accelerate deployment of smart meters to 100% of small customers by 2030³¹ could also put upward pressure on retail costs.

Environmental costs

Environmental costs are expected to decrease across all regions. While large-scale RET costs are likely to increase, this is more than offset by a projected decline in the cost of the small-scale renewable energy scheme from 2022–23 to 2023–24. Despite expectations that the rate of small-scale installations in 2023 and 2024 will remain similar to 2022, overall costs are expected to decrease due to the shortening of the deeming period. Differences in jurisdictional energy efficiency schemes mostly account for variations to total environmental costs by region.³²

7.5 Energy use

Consumers' energy costs are split between fixed charges and charges based on how much energy consumers use. Usage charges are the largest component of energy bills for most households.³³ A consumer's energy use significantly impacts energy affordability (section 7.6). Energy use varies by household size, thermal efficiency, appliance quality, heating and cooling needs and lifestyle. Some consumers use both electricity and gas, and others only use electricity. This means that a consumer's use of electricity or gas on its own may not be indicative of their total energy consumption.

Residential customers in Tasmania and the ACT use the most electricity (per customer) in the NEM. Residential customers on CitiPower's (Victoria) and Jemena's (Victoria) networks use the least. Customers in Victoria and the ACT tend to use the most gas. Key drivers of greater electricity and gas use are climate (with greater heating requirements in jurisdictions such as Tasmania, Victoria and ACT). Where gas connections are high, heating is generally provided by gas use rather than electricity use (Victoria and ACT). Gas use in these jurisdictions is 6 to 7 times higher in winter than over summer.³⁴

Over the past 10 years, the overall amount of energy residential consumers are demanding from the NEM has decreased. This is largely driven by households using electricity generated by rooftop solar PV systems, which as at 30 June 2023 provides an estimated 17 GW of capacity connected to the NEM. This is equivalent to 23% of generation capacity across the NEM.³⁵

31 AEMC, [Review of the regulatory framework for metering services](#), Australian Energy Market Commission, 30 August 2023.

32 ACIL Allen, [Default Market Offer 2023–24](#), 23 May 2023.

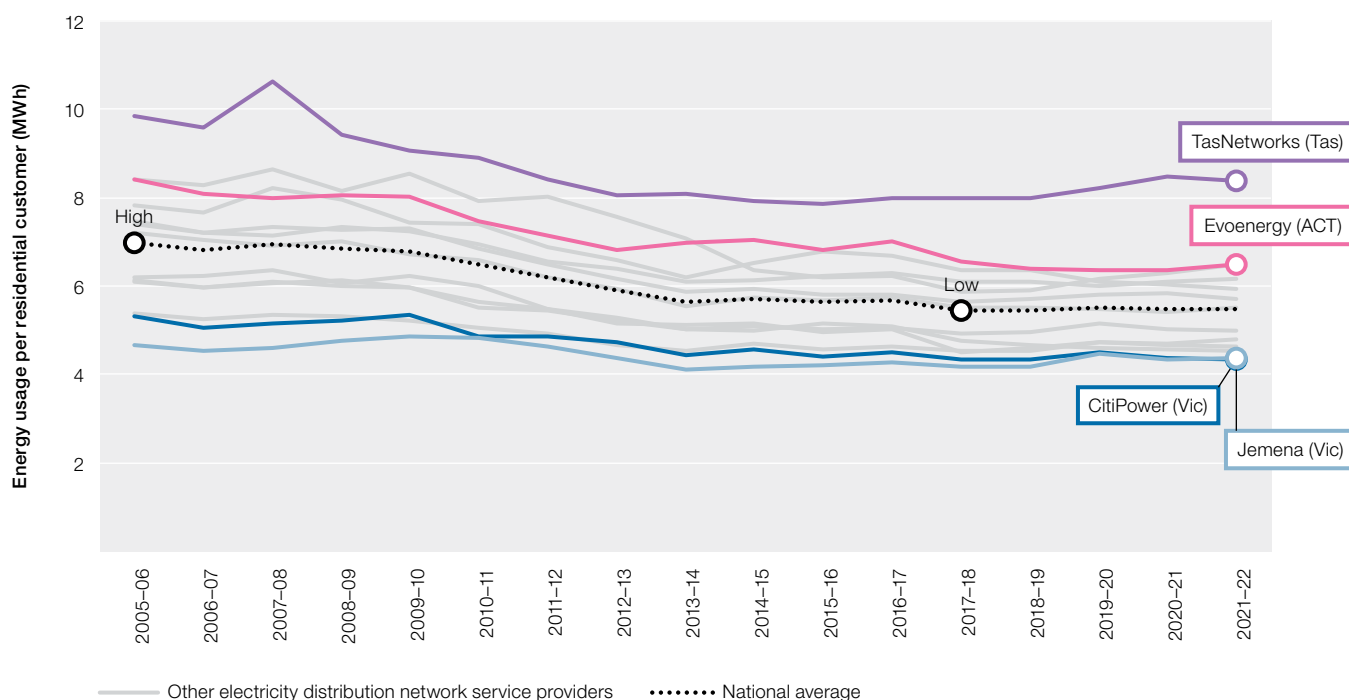
33 Most energy offers include usage charges as well as a fixed supply charge. Some offers also include membership fees or additional charges for metering.

34 Frontier Economics, [Residential energy consumption benchmarks, final report for the Australian Energy Regulator](#), December 2020, accessed 15 September 2022, p. 26.

35 Capacity generated by rooftop solar is subtracted from demand (rather than traded in the NEM). With rooftop solar output records set over the summer of 2022–23, when rooftop solar reached a record 11,504 MWh, the rapid uptake of rooftop solar continues to be the major contributing factor to reduced grid demand.

Improved energy efficiency of new homes and appliances is also contributing. Minimum energy efficiency ratings for new residential houses was first introduced in 2004 through the Nationwide Housing Energy Rating Scheme (NatHERS) and energy efficiency ratings for appliances were introduced in 2012 through the Greenhouse and Energy Minimum Standards (GEMS).³⁶ More recently, state and territory governments are implementing measures to reduce residential and small commercial consumers' reliance on gas (section 6.5.4).

Figure 7.6 Energy use per residential customer – electricity

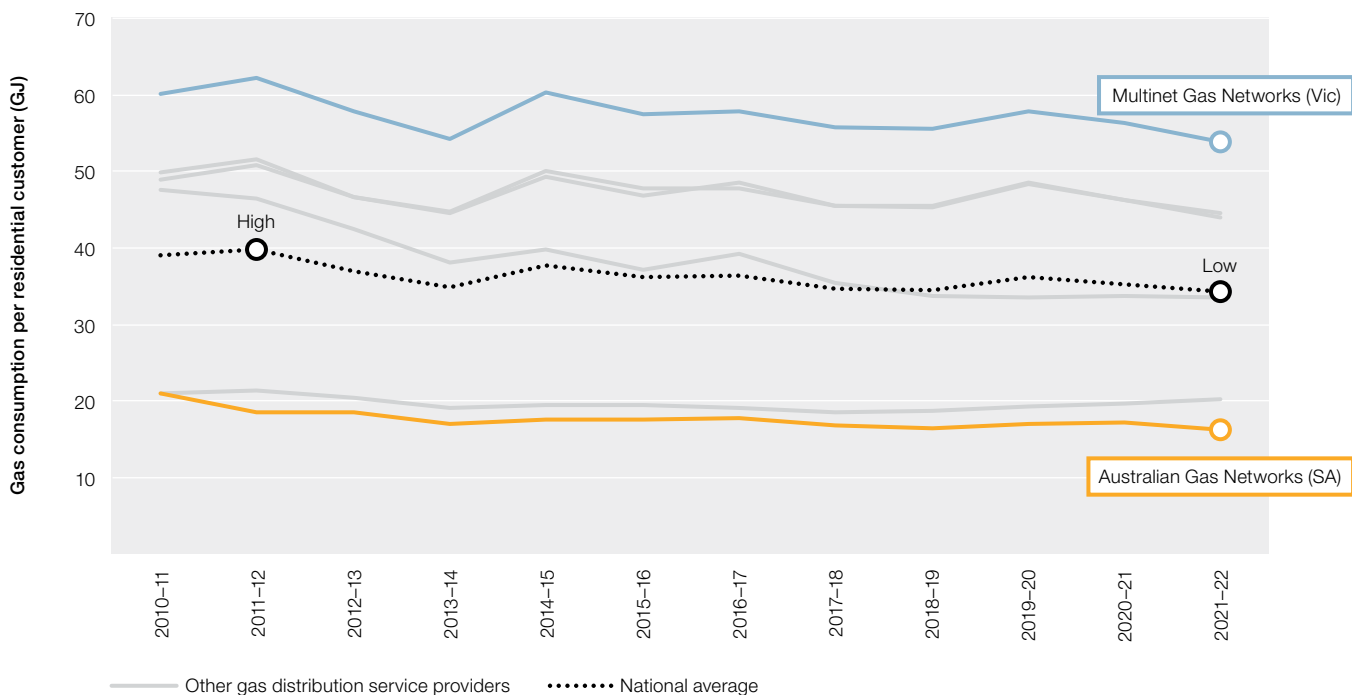


Note: MWh: Megawatt hour.

Source: Regulatory information notices (RIN) responses.

³⁶ NatHERS was initiated in 1993 by the Australian and New Zealand Minerals and Energy Council to provide a standardised approach to rating the thermal performance of Australian homes. GEMS came into effect on 1 October 2012, when the GEMS Act was established to create a national framework for appliance and equipment energy efficiency in Australia.

Figure 7.7 Energy use per residential customer – gas



Note: GJ: Gigajoule.

Source: Regulatory information notices (RIN) responses.

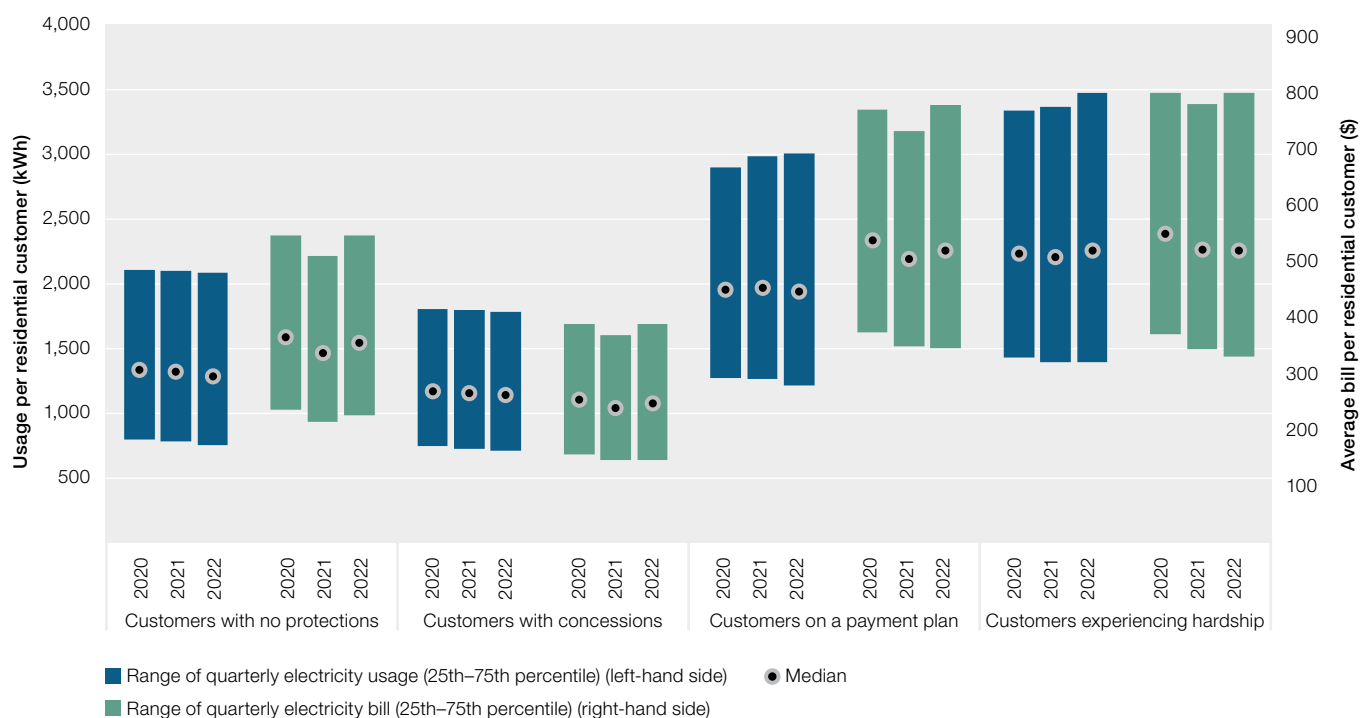
Overall, as the energy market transitions to variable renewable energy, the reported average energy use outcomes are likely obscuring a widening gap between those households with the capacity to adopt new technology or modify energy use, and those unable to do so (due to cost, residential tenancy laws or other barriers). The former group is likely experiencing a substantial reduction in electricity use, while electricity use among other households has likely remained relatively consistent over time, and these customers are likely spending more on electricity compared with 10 years ago.

Considering that the main drivers of the reduction in energy use – rooftop solar and energy efficient housing – are not equally accessible to all consumers, it is not surprising that at more granular level, a disparity in energy use across different customer types can be observed.

Figure 7.8 shows customers without protections,³⁷ and those on concession, use significantly less energy than payment plan and hardship customers, who accordingly also have higher bills.

³⁷ Protections include concessions that are applied to energy bills, payment plans and hardship arrangements and insights from this data assumes that consumers without protections have been correctly identified as not eligible for them.

Figure 7.8 Electricity use and average bill by residential customer type



Note: kWh: Kilowatt hour.

Source: ACCC, [Inquiry into the National Electricity Market](#), June 2023.

7.5.1 Impact of energy efficiency of homes on energy use

For consumers living in older homes, there is a significant deficit in average thermal efficiency of existing homes compared with the new 7 star minimum standard. Data from NatHERS certificates for assessments on existing homes shows these homes have an average energy rating of between 2 and 3 stars compared with an average rating of between 6 and 7 stars for certificates issued since 2016 for new homes.³⁸

Studies by project partners under the RACE for 2030 program have explored different upgrades to existing homes and the impact on energy use.³⁹ Under their modelling of detached 4-bedroom houses in Victoria, NSW and Western Australia, energy use was reduced by between 18% and 99% (Table 7.3) depending on which of the 4 different upgrade options were applied.

³⁸ CSIRO, [Australian housing data portal](#), accessed 20 August 2023.

³⁹ The Reliable Affordable Clean Energy for 2030 Cooperative Research Centre (Race for 2030 CRC) is a 10-year, \$350 million Australian research collaboration involving industry, research, government and other stakeholders.

Table 7.3 Reductions in energy use for upgraded homes compared to baseline

| Annual energy use (electricity and gas) (kWh) | Victoria | New South Wales | Western Australia |
|---|-------------|-----------------|-------------------|
| Baseline | 12,655 | 9,604 | 9,827 |
| Upgrade 1 – improved roof, wall and floor insulation, pipe lagging and draught sealing | 8,734 (31%) | 7,918 (18%) | 7,603 (23%) |
| Upgrade 1 + Upgrade 2 – addition of ceiling fans, reverse cycle air condition and double-glazed windows | 7,298 (42%) | 7,815 (19%) | 7,215 (27%) |
| Upgrade 1 + Upgrade 3 – efficient appliances, LED lighting and a clothesline to reduce the need for a dryer | 5,210 (59%) | 3,476 (64%) | 3,577 (64%) |
| Upgrade 1 + Upgrade 4 – addition of solar PV and a hot water heat pump | 2,169 (83%) | 669 (93%) | 710 (93%) |
| All upgrades | 103 (99%) | 0 (100%) | 4 (100%) |

Note: Examples of baseline homes include: a detached home with a usable area of 202 m², living area with dining and kitchen, 4 bedrooms, 2 bathrooms, a theatre room and garage; or a terraced home with a usable area of 124 m² distributed across 2 floors, including a living and dining room, 3 bedrooms, one bathroom, 2 balconies and a carport.

Source: DISER, [Race for 2030, Pathways to scale: Retrofitting One Million+ homes](#), p. 45.

7.6 Energy affordability

Energy is an essential service. It is essential to almost everyone's daily lives, health, wellbeing and employment. An equitable energy market should provide affordable and reliable energy, be inclusive of all consumers and should not create or compound harms and barriers to participation. Energy equity, particularly affordability, remains a significant concern in energy markets.

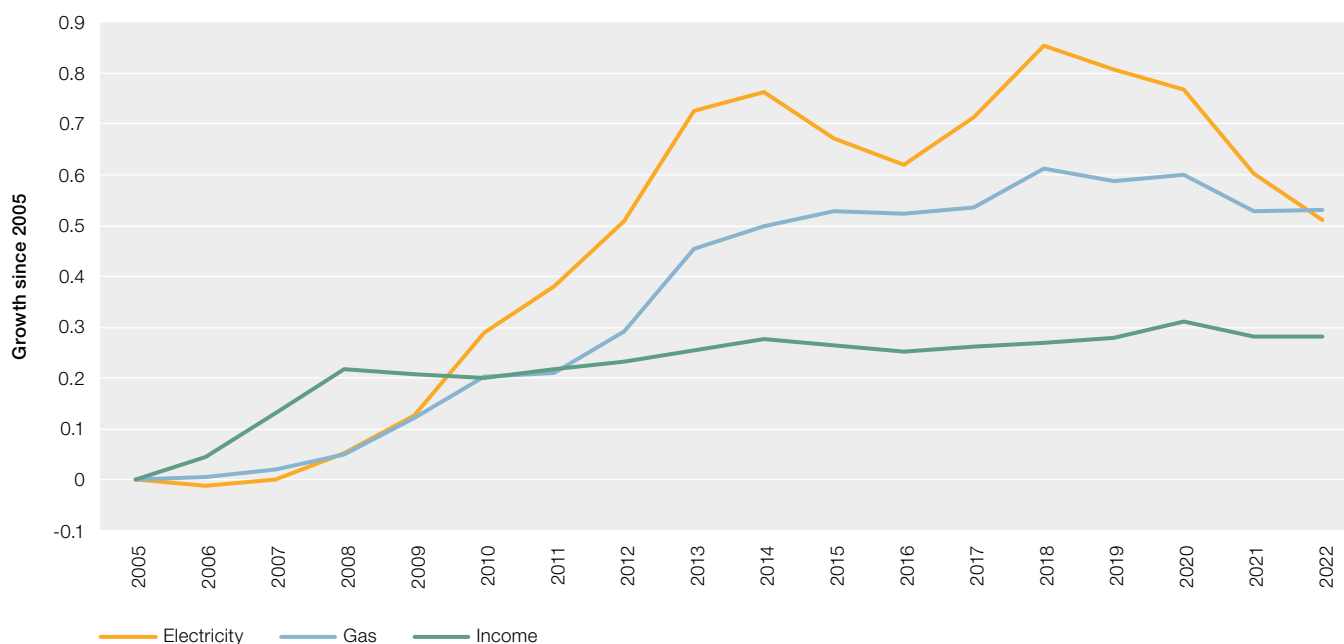
Energy affordability is impacted by a customer's energy use, energy contract and prices, income, living costs, ability to participate effectively in energy markets and extent to which they may be experiencing vulnerabilities. Energy bills can be a significant burden for households even in times of relatively low energy prices.

From June 2022 to June 2023, electricity bills are estimated to have increased significantly across NEM regions.⁴⁰ This is the largest increase since 2012–13. While electricity bill increases have been outpaced by growth in other cost-of-living pressures since 2019, data indicates that both gas and electricity prices have increased faster than wages since 2005 (Figure 7.9). Consumers are spending a larger portion of their income on energy, while also having to contend with other cost-of-living pressures.

Subdued wholesale market conditions over the past few years (prior to 2022) did flow through to retail prices, which had a positive impact on affordability across all jurisdictions in 2020–21 (Figure 7.9). However, to the extent the foreseeable upward pressures on wholesale, network and retail costs translate to higher bills, this will challenge energy affordability.

⁴⁰ Estimated bill costs are based 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.

Figure 7.9 Energy prices and income



Note: Inflation adjusted.

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

Retail energy prices paid by consumers depend on where a customer lives, the network services required to supply their energy, competition between retailers in their area, the customer's ability to identify an appropriate energy plan, and whether the customer is eligible for a concession or rebate to help manage their energy costs.

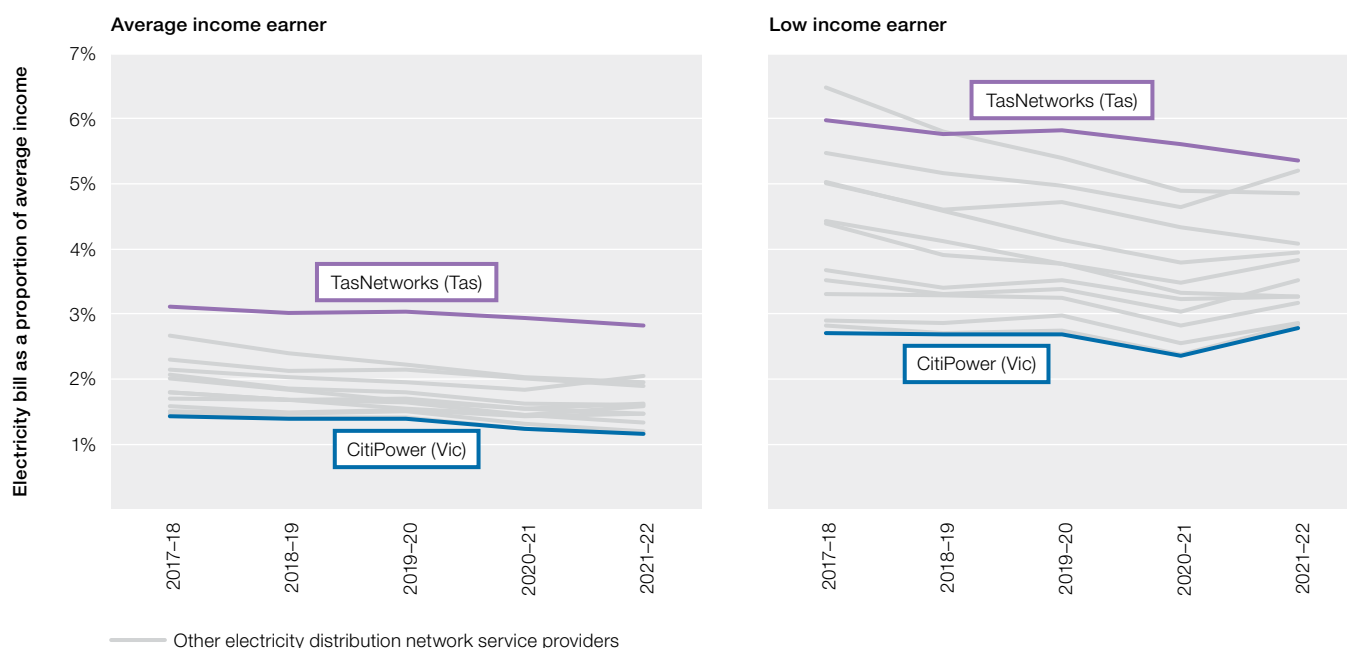
This means that affordability challenges are not split evenly across all consumer types. The evidence suggests that affordability differs substantially based on factors such as geographical location and income levels. For example, retail energy prices are typically higher in regional and remote areas than in urban areas, mostly due to higher 'per customer' network costs required to operate geographically longer networks to areas with lower population density, such as Ergon Energy (Queensland) (Figure 4.11).

On the mainland, estimated annual customer electricity bills in 2021–22 ranged from \$1,273 for a customer in urban Victoria to \$1,971 for a customer in rural NSW.⁴¹ This is likely driven by both electricity prices and the different energy use profiles. Regional differences are also driven by gas consumption across regions. For example, Victoria, being the highest user of gas, has the lowest proportion electricity bill and the highest proportion gas bill.

Anticipated bill increases in financial year 2023–24 will impact average income earners, whom, up to the end of 2022, continued to spend around 1.2% to 2.1% of their income on electricity (Figure 7.10). However, increases will hit low-income earners, who are already paying between 2.8% and 5.4% of their income on electricity, much harder. While this will be partly offset by energy bill relief and other cost-of-living rebates, it will be important for retailers to actively identify and support customers with challenges paying bills through payment plans and hardship programs.

⁴¹ Estimated annual customer bills for generally available flat rate offers by distribution company.

Figure 7.10 Affordability of median market offers – electricity

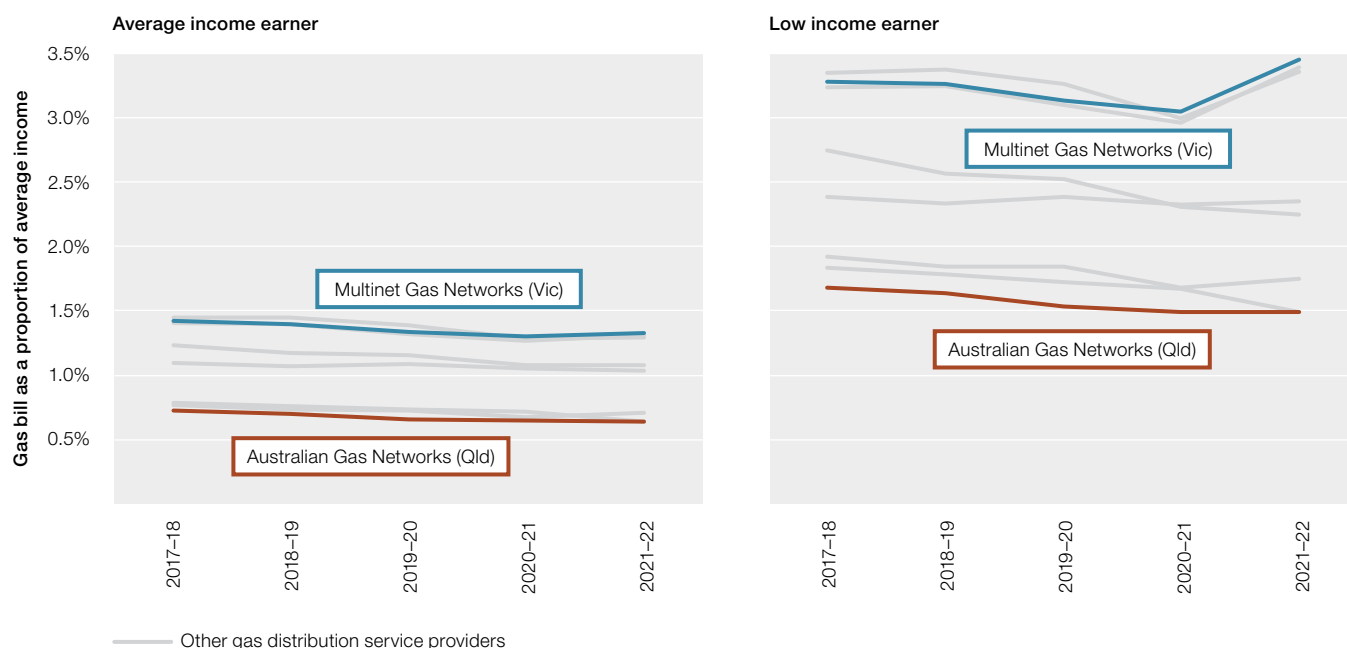


Note: Based on offers for residential customers in each jurisdiction. Average household consumption for the financial year ending June of each period was used in annual bill calculations. Proportion refers to mean disposable income. Use of average incomes across jurisdictions may overstate affordability in regional areas, where average incomes are typically lower than across the jurisdiction more broadly.

Source: Offer data from Energy Made Easy (AER) and Victorian Energy Compare (DELWP). Consumption estimates based on Economic benchmarking regulatory information notice (RIN). Income data are unpublished ABS estimates of household disposable income.

Gas bills as a proportion of income have remained static since 2016–17, at around 0.6% to 1.3% of income. However, between 2020–21 and 2021–22, gas bills as a proportion of income spiked for Victorian customers. Because customers in Victoria use a lot more gas than customers in other regions, increased prices (due to both local supply and international prices) have a greater impact relative to their income, as it makes up more of their overall energy usage.

Figure 7.11 Affordability of median market offers – gas



Note: Based on single rate offers for residential customers and average consumption in each distribution area. Using mean disposable income for all and low-income households by state or territory. Use of average incomes across jurisdictions may overstate affordability in regional areas, where average incomes are typically lower than across the jurisdiction more broadly.

Source: Offer data from Energy Made Easy (AER) and Victorian Energy Compare (DELWP). Income data are unpublished ABS estimates of household disposable income. Consumption based on Frontier Economics report to the AER, Residential energy consumption benchmarks, December 2020.

7.6.1 Disparity of energy affordability between different types of consumers

Customers experiencing vulnerability⁴² are likely to face additional challenges keeping energy bills low because they may be less able to implement some of the most effective means of reducing energy bills, including modifying energy use, making home energy efficiency upgrades, adopting new technologies and shopping around for better deals. As such, customers experiencing vulnerability are more susceptible to periods of high energy prices and disproportionately represented in the number of customers experiencing debt, hardship and disconnection.⁴³

Consumers living in older, less energy-efficient homes could be spending significantly more on their energy use according to the *Race for 2030 H2: Opportunity Assessment Enhancing home thermal efficiency Final Report May 2023*, which notes that retrofitting an existing Australian home and reducing home energy use by up to 9,000 kilowatt hours (kWh) per year could reduce an average home energy bill by up to \$1,600 per year.⁴⁴

Having both the autonomy and the resources to modify energy use plays an important role in energy affordability. There are 2 key aspects of this:

- › Consumers without access to energy saving or self-generating measures, such as rooftop solar PV systems, may be more likely to live in less energy efficient housing with high-consuming appliances, have higher energy bills and experience financial hardship. For example, in Energy Consumers Australia's (ECA) Consumer Behaviour Survey, 22% of respondents were interested in reducing the cost of their household energy bills through smart appliances but were also facing financial pressure or might struggle to afford the upfront costs on top of their household bills.⁴⁵
- › Consumers living in rental properties are generally reliant on property owners to make property improvements to reduce energy use, and property owners may lack incentives to make these improvements. This split incentive will be worse in areas where demand for rental properties is high, or where consumers, who may be living with vulnerabilities, are not in a position to make requests for renovations or hold out for a more thermally efficient rental property.

The AER's *Annual retail markets report 2021–22* provides more in-depth assessments of affordability.⁴⁶

7.6.2 Policy measures and regulatory reforms aimed at improving affordability

Energy price relief

In response to the significant market events of winter 2022, the Australian Government announced an Energy Price Relief Plan in December 2022.⁴⁷ The plan included implementing coal and gas price caps, an investment scheme to unlock investment in clean dispatchable capacity to support reliability and mitigate the risk of future price shocks, and an Energy Bill Relief Fund to provide targeted energy bill relief for small customers.

All state and territory governments in the NEM commenced implementing energy bill relief measures under the Energy Bill Relief Fund from 1 July 2023. Under the fund, those who receive an eligible government payment or hold an eligible concession card will receive rebates off their energy bills. Conditions, payment amount and timing vary between jurisdictions.⁴⁸

The Queensland Government is delivering its energy bill relief support through its cost-of-living relief package. Households receiving the \$372 Queensland Electricity Rebate will automatically receive an additional \$700 rebate on their electricity bill in 2023–24. All other Queensland households will automatically receive a \$550 rebate on their electricity bill in 2023–24.⁴⁹

42 The AER's definition of 'customers experiencing vulnerability' can be accessed in AER, [Towards energy equity strategy](#), Australian Energy Regulator, 20 October 2022, p. 4.

43 AER, [Towards energy equity strategy](#), Australian Energy Regulator, 20 October 2022.

44 DISER, [Race for 2030. Pathways to scale: Retrofitting One Million+ homes](#), December 2021, p. 31.

45 Calculation based on ECA respondents to question *How likely would you be to use smart appliances to reduce the cost of your household's energy bills?* and AER analysis of underlying data.

46 AER, [Annual retail markets report 2021–22](#), Australian Energy Regulator, 30 November 2022.

47 DCCEEW, Energy Price Relief Plan, Department of Climate Change, Energy, the Environment and Water, accessed 9 September 2023.

48 For further information see DCCEEW, [Energy Bill Relief Fund for households](#), Department of Climate Change, Energy, the Environment and Water, accessed 9 September 2023.

49 DCCEEW, Energy bill relief for households, Queensland, Department of Climate Change, Energy, the Environment and Water, accessed 9 September 2022.

Energy efficiency of homes

Australian governments are also implementing energy efficiency measures to help reduce overall household energy use. Noting that there were more than 9 million existing homes in Australia with the majority having a NatHERS energy rating below 3 stars, the Australian Government and state and territory governments have been developing a trajectory towards low energy buildings that includes specific actions for existing homes. This includes a National Framework for Disclosure of Residential Energy Efficiency Information, a National Framework for Minimum Rental Energy Efficiency Requirements and improvements to existing energy and appliance efficiency programs.

In October 2022, the Australian Government announced its forthcoming National Energy Performance Strategy and released a discussion paper, which included residential building energy use as one of 5 strategic focus areas. It notes that Australia's residential building sector accounts for around 24% of electricity consumption and specifically mentions the need to consider low-income households, renters, people living in apartments and people living in regional, remote communities, and the importance of ensuring energy security for First Nations communities.⁵⁰

State and territory governments have implemented initiatives to help low-income households improve their energy efficiency or install solar PV systems:

- › In Victoria, the Household Energy Savings Package offers energy efficiency heating and cooling systems for low-income households and energy upgrades of social housing properties. The program also includes a one-off \$250 Power Saving Bonus to help households that have at least one resident receiving payments under an eligible concession program.
- › In the ACT, the free ActSmart Household Energy Efficiency Program, delivered by St Vincent de Paul, offers practical ways for people in lower-income households to reduce their energy and water bills. Energy efficiency assessors visit homes to help consumers find ways to reduce energy and water use and save money.
- › South Australia's Retailer Energy Productivity Scheme offers free or discounted energy efficiency and energy productivity activities, but it is not specifically targeted at low-income households. The South Australian Government has also supported a virtual power plant project that supplies, installs and maintains solar and home battery systems for Housing SA tenants at no cost to the tenant.⁵¹

Sections 7.6.3 to 7.6.6 provide an interim update on customer debt, payment plans, hardship programs and disconnections. This data will be more thoroughly examined in the AER's forthcoming Annual retail markets report 2022–23, due for publication in November 2023.

The AER's quarterly retail performance reports provide more detail on the data and interdependencies between the different debt assistance and financial difficulty metrics provided by retailers.⁵²

7.6.3 Assisting customers in energy debt

In response to COVID-19, many retailers locked or extended debt levels, allowing customers to accumulate more debt than in the pre-COVID years. Since then, the proportion of customers in energy debt has increased while retailers seek to transition customers back towards a business-as-usual scenario. Cost-of-living pressures and recent energy price spikes, while partially offset by concessions and rebates in some jurisdictions, have contributed to debt levels remaining higher than pre-COVID years.

As of March 2023, the overall number of customers across NEM regions with energy debt increased by 11% since 30 June 2022. The biggest increases were in the ACT (25%) and Tasmania (21%). There may be multiple factors driving increases in the ACT, including the primary retailer ActewAGL contacting customers proactively in late 2022 to support them managing debt into the new year. In Tasmania, the increase may be due to resumption of business-as-usual debt collection practices since June 2022 by primary retailer Aurora, following a period of relatively relaxed debt collection practices during COVID-19.

Queensland was the only region with a decrease in customers in energy debt (–7%) (Figure 7.12). This is likely due to the Queensland Government's \$175 energy bill rebate from 1 August 2022 and relatively stable prices for customers on the highly regulated Ergon Energy network. Compared with pre-COVID-19, the number of customers with energy debt has increased in all jurisdictions apart from the ACT. In Tasmania the numbers have more than doubled.

50 DCCEEW, [National Energy Performance Strategy: consultation paper](#), Department of Climate Change, Energy, the Environment and Water, 10 November 2022.

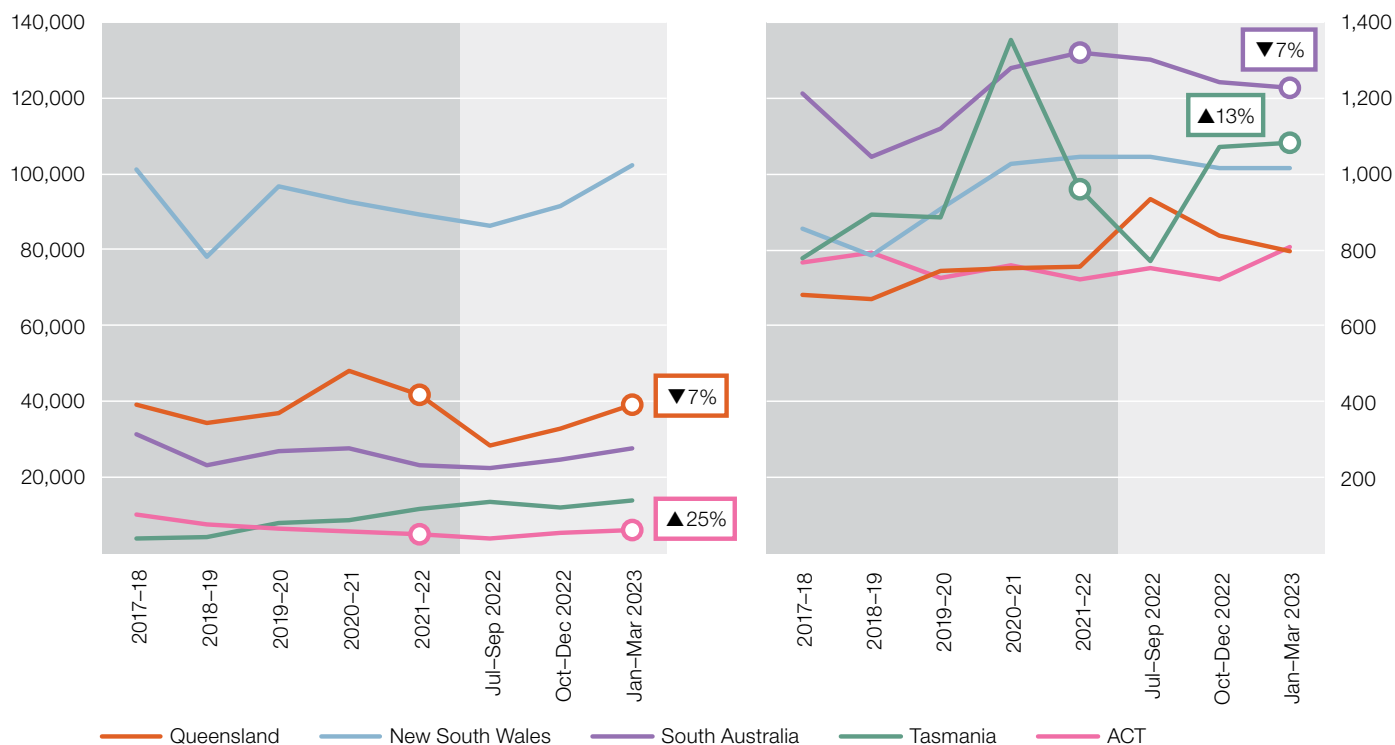
51 Government of South Australia, [South Australia's Virtual Power Plant](#), accessed 16 September 2022.

52 AER, [Performance reporting](#), Australian Energy Regulator, accessed 28 August 2023.

As of March 2023, the average amount of customer debt per customer increased in Queensland (5%), the ACT (12%) and Tasmania (13%) compared with June 2022. NSW and South Australia saw slight decreases of 3% and 7%, respectively. However, in all jurisdictions, average energy debt remains elevated compared with pre-COVID-19 levels in 2017–18 and 2018–19.

Further analysis and more up-to-date data will be provided in the forthcoming Annual retail markets report 2022–23, due for publication in November 2023.

Figure 7.12 Residential customers in energy debt



Note: Based on electricity and gas customers with an amount owing to a retailer that has been outstanding for 90 days or more. Excludes customers that have entered into hardship programs.

Source: AER, *Quarterly retail performance report, Q3 2022–23*, June 2023.

7.6.4 Payment plans

Under the Retail Law, retailers are obligated to provide payment plans to customers experiencing payment difficulties.⁵³ Payment plans allow settlement of overdue amounts in periodic instalments and are typically the first assistance offered by retailers to customers who show signs of payment difficulties. The AER's Sustainable Payment Plans Framework guides retailers on negotiating affordable payment plans with customers needing assistance to manage debt.⁵⁴ The framework has been adopted by most retailers servicing small customers.

While concerning that debt and hardship are increasing, the increase in customers on payment plans can also indicate earlier and more effective retailer engagement and may result in fewer disconnections. As of 31 March 2023, there was a 7.7% increase in customers participating in payment plans compared with the same time in the previous year.⁵⁵

Further analysis and more up-to-date data will be provided in the forthcoming Annual retail markets report 2022–23, due for publication in November 2023.

⁵³ [National Energy Retail Law \(South Australia\) Act 2011](#), Part 2, Division 7, Section 50 – Payment plans.

⁵⁴ AER, [Sustainable payment plans, a good practice framework for assessing customers' capacity to pay, Version 1](#), Australian Energy Regulator, July 2016, accessed 15 September 2022.

⁵⁵ AER, [Quarterly retail performance report, Q3, 2022–23](#), Australian Energy Regulator, 28 June 2023.

7.6.5 Hardship programs

The Retail Law requires energy retailers in Queensland, NSW, South Australia, the ACT and Tasmania to develop and maintain a customer hardship policy that underpins how they identify and assist customers facing difficulty paying their energy bills. The AER's Customer Hardship Policy Guideline requires retailers to ensure their programs are easily accessible and include a standard statement explaining how they will help customers. It puts greater onus on retailers to identify customers who may need assistance.⁵⁶

Assistance under a retailer's hardship program can include:

- › extensions of time to pay a bill and tailored payment options
- › advice on government concessions and rebate programs
- › referral to financial counselling services
- › review of a customer's energy contract to ensure it suits their needs
- › energy efficiency advice, such as an energy audit, and help to replace appliances to help reduce a customer's bills
- › waiver of late payment fees.

As part of their hardship policies, retailers must take into consideration a customer's capacity to pay. In Victoria, the hardship assistance equivalent is called the payment difficulty framework.⁵⁷

As of 31 March 2023, the proportion of residential electricity customers on hardship programs compared with June 2022 increased slightly in NSW (30 basis points (bps)), South Australia (30 bps), the ACT (20 bps) and Tasmania (20 bps). Queensland remained unchanged. The proportion of gas small customers on hardship programs increased over the same period by between 10 and 20 basis points in Queensland, NSW and South Australia, and remained unchanged in the ACT (Figure 7.13).

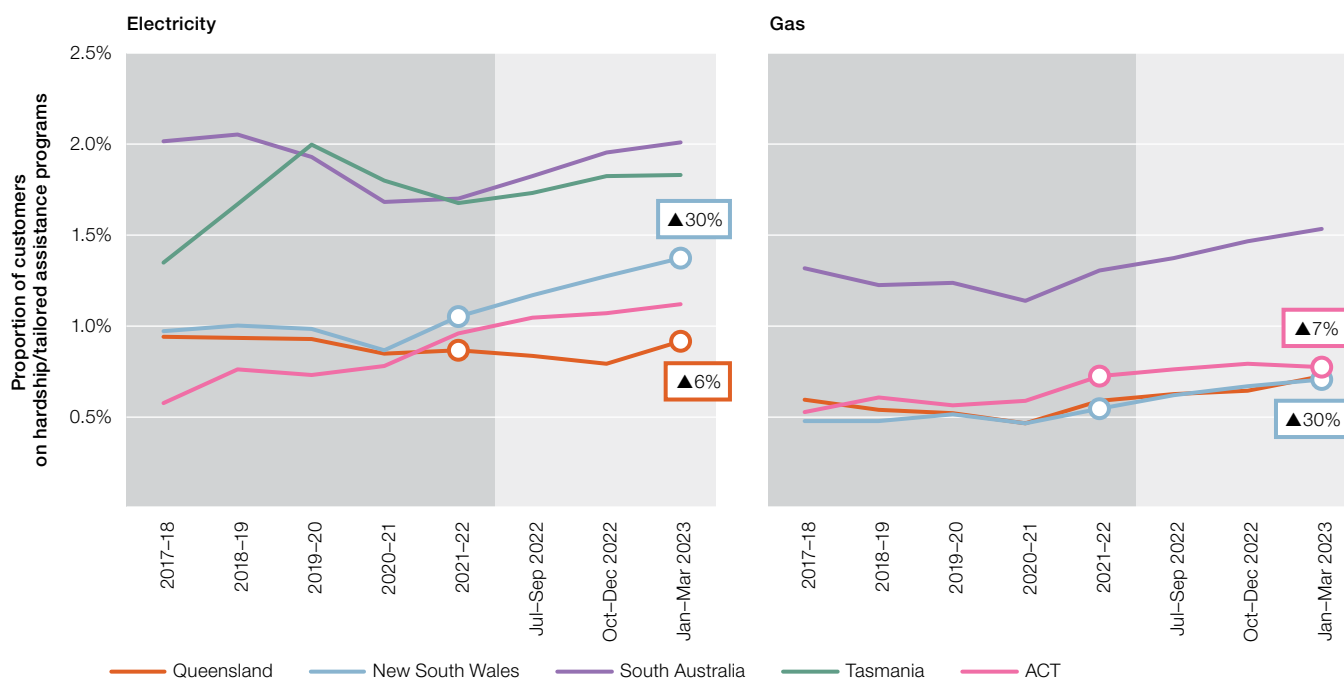
Analysis in the AER's forthcoming Annual retail markets report 2022–23, due for publication in November 2023, will provide a more complete picture. It is encouraging to note a 28% decrease in average debt on entry to a hardship program, indicating earlier and more effective engagement by retailers with customers experiencing debt in March 2023 compared with the previous year.⁵⁸

⁵⁶ AER, [Hardship protections a right not a privilege](#), media release, Australian Energy Regulator, 29 March 2019, accessed 15 September 2022.

⁵⁷ In 2019 the Victorian Government introduced its payment difficulty framework – a series of rules that provide strong and more consistent hardship assistance for Victorian energy consumers. These rules ensure minimum entitlements to all customers (known as 'standard assistance') and further minimum entitlements to customers with arrears ('tailored assistance').

⁵⁸ AER, [Quarterly retail performance report, Q3](#), 2022–23, Australian Energy Regulator, 28 June 2023.

Figure 7.13 Small customers on hardship/tailored assistance programs



Note: The y axis represents % of customers in hardship.

Source: AER, *Quarterly retail performance report, Q3 2022-23*, June 2023.

The AER's annual retail markets report and quarterly retail performance reports provide a more in-depth assessment of customers experiencing payment difficulties and hardship.⁵⁹

7.6.6 Disconnecting customers for non-payment

Disconnection for non-payment of bills should be viewed as a last resort and only occur after the strict processes set out in the Retail Rules have been followed.

Disconnection is not permitted in certain circumstances – such as when a customer's premises are registered as requiring life support equipment, a customer on a hardship program is meeting their payment obligations or a customer's debt is below \$300.

The rate of disconnections remains significantly lower than in pre-COVID-19 years. This is encouraging because the AER's Statement of Expectations directing retailers not to disconnect small customers during COVID-19 lapsed on 30 June 2021.⁶⁰ The persistence of low disconnection rates for both electricity and gas small customers suggests ongoing behavioural change by retailers (Figure 7.14 and Figure 7.15). Where disconnection did occur, customer debt levels at the time of disconnection were higher than in the previous year.

⁵⁹ AER, [Performance reporting](#), Australian Energy Regulator, accessed 28 August 2023.

⁶⁰ AER, [Statement of Expectations of energy businesses: Protecting customers and the energy market during COVID-19](#), Australian Energy Regulator, 29 June 2021.

Figure 7.14 Disconnection for failure to pay – electricity



Note: Based on customers with an amount owing to a retailer that has been outstanding for 90 days or more, at 31 March 2023, for all states except Victoria, which is at 30 June 2023.

Source: AER, *Quarterly retail performance report, Q3 2022-23*, June 2023; ESC, Victorian energy market dashboard, accessed 30 June 2023.

Figure 7.15 Disconnection for failure to pay – gas



Note: Based on customers with an amount owing to a retailer that has been outstanding for 90 days or more, at 31 March 2023, for all states except Victoria, which is at June 2023.

Source: AER, *Quarterly retail performance report, Q3 2022-23*, June 2023; ESC, Victorian energy market dashboard, accessed 30 June 2023.

7.6.7 Improving our approach to consumer vulnerability

In October 2022 the AER launched *Towards energy equity – A strategy for an inclusive energy market*.⁶¹

This strategy is focused on reducing barriers to participation, supporting consumers experiencing payment difficulty, ensuring the consumer voice is heard in sector reforms and improving affordability by reducing the cost to serve energy consumers.

The strategy outlines 15 actions that the AER will deliver over the next 3 years, in alignment with 5 core objectives:

- › improve identification of vulnerability
- › reduce complexity and enhance accessibility for energy consumers
- › strengthen protections for consumers facing payment difficulty
- › use the consumer voice and lived experience to inform regulatory design and change
- › balance affordability and consumer protections by minimising the overall cost to serve.

Since publication of the strategy, the AER has progressed many of the actions set out in the strategy. Updates for several of these are provided below.

Action 1: Improve protections for consumers affected by family violence

New family violence protections commenced in the Retail Rules on 1 May 2023. These new obligations are designed to improve energy retailers' response to, and support of, customers experiencing family violence across National Energy Customer Framework jurisdictions. The relevant obligations have since been classified as tier 1 civil penalties. Ahead of the commencement of the new rules, the AER released an interim guidance note in April 2023 outlining energy retailers' key responsibilities to customers affected by family violence and setting out the AER's compliance expectations.⁶²

Family violence has been added as an enduring Compliance and Enforcement Priority from 1 July 2023 and the AER will continue to act where there are serious issues impacting consumers affected by family violence. The AER will conduct a review of retailer family violence policies, and seek stakeholder feedback, with a view to updating the guidance note in 2024.

Action 2: Develop a toolkit to help consumer-facing energy businesses identify vulnerability

The AER has undertaken a literature review and engaged with stakeholders, including financial counsellors and retailers, to develop an understanding of current industry practices and consolidate existing information on best practice for identifying vulnerable consumers. The AER plans to share the findings in late 2023.

Action 4: Implement Better Bills Guideline

The AER commenced consultation on Version 2 of the Better Bills Guideline in September 2022, with the updated guideline released in January 2023. Version 2 clarified the better offer and self-read information requirements and aligns the guideline with the AEMC's determination to change the date retailers must comply with the guideline's new billing provisions to 30 September 2023.

The AER continues to engage and respond to retailers regarding compliance with the Better Bills Guideline as they prepare for full implementation. The AER will review compliance with the guideline following 30 September 2023 and subsequently provide guidance to industry on good practice.

Action 5: Improve AER's communications channels to assist energy consumer literacy

During the year, the AER has been active across traditional and digital communication channels in support of this action. Three consumer literacy campaigns have been run during the year – one to educate people about the Default Market Offer (DMO), an Energy Made Easy (EME) smart energy campaign and a Language other than English (LOTE) campaign.

The project to redevelop the AER website has continued and will shortly move into the testing phase. A user-centred methodology has been used to improve access to information. Similarly, work on a consumer-friendly writing style guide is nearing completion.

⁶¹ AER, [Towards energy equity strategy](#), Australian Energy Regulator, 20 October 2022.

⁶² AER, [Interim guidance note – family violence rule](#), Australian Energy Regulator, 12 April 2023.

Action 7: Improve outcomes for consumers in embedded networks

The AER will address this action through a broader review of the exemptions framework for embedded networks. The AER plans to publish an issues paper in late 2023 and the review is intended to run through to mid-2025.

Action 13: Review consumer protections for future energy services

The AER has concluded there is a strong case for reforming the National Energy Customer Framework to ensure consumers are adequately protected against potential harms arising from new energy services that emerge as part of the energy transition. This recommendation, along with detailed risk analysis, will be provided to Energy Ministers before the end of 2023.

Action 15: Advocate for sector-wide 'game changer' reforms

The AER has been working with sector stakeholders to drive systemic change to provide better outcomes for consumers experiencing vulnerability and to better share the risk of managing vulnerability across the energy sector. A leadership group of senior stakeholders from industry, government, market bodies, ombudsman schemes and consumer advocates has been established to consider how to deliver potential solutions to address this problem. The AER is planning to present a proposed package of reforms that is supported by key stakeholders to government in late 2023.

7.7 Competition in retail energy markets

Competition in retail energy markets is necessary to stimulate innovation and ensure better quality, lower cost products and services for customers. The AER balances supporting competition by delivering consumer protections, such as monitoring and reporting on market performance, enforcement and compliance activities, provision of price comparison services, setting the default market offer reference price and regulating monopoly infrastructure.

Regulatory reforms since 2018 reflect concerns outlined in the ACCC's Retail Electricity Pricing Inquiry June 2018, namely that markets had not delivered sufficient benefit to consumers by way of competition.⁶³ The reforms have sought to encourage more competitive behaviours from retailers, support consumers to engage more closely with the market and make it easier to compare retail offers so that retailers compete more aggressively through lower prices and better products.

Customers in embedded networks have historically lacked retail choice. In June 2019 the AEMC proposed new arrangements that would begin shifting embedded networks into the national regime, improving protections and access to retail market competition for their customers.⁶⁴ Since then, the AER has prioritised customers in embedded networks within its compliance and enforcement activities and introduced reforms, including a new policy ensuring embedded network customers can access hardship protections and ombudsman schemes (section 7.8.4).

Other consumers may be experiencing vulnerability and may not have the opportunity to shop around for the best market offer. It is important they are not further disadvantaged by higher energy bills.

7.7.1 Market concentration

Origin Energy, AGL Energy and EnergyAustralia (the 'big 3') are the largest energy providers in Australia. The big 3 retailers have a significant share in the residential electricity and gas markets of NSW and South Australia and a lesser but still substantial share of the Queensland and Victorian markets. Although their market share continues to decline, as of March 2023 the big 3 still served at least 60% of residential and small business electricity customers and 80% to 90% of residential and small business gas customers (Figure 7.17).

Growth in the number of alternative (Tier 2) retailers contributes to effective retail competition by providing a more diverse mix of offers in the market.⁶⁵ Since winter 2022, the significant growth in the number of Tier 2 retailers – observable from 2017–18 – has slowed (Figure 7.16). While Tier 2 retailers continue to improve market share, they are doing so at a slower rate.

Since the market conditions of winter 2022, smaller retailers are finding it harder to manage exposure to volatile wholesale electricity prices. Further, sharp increases in wholesale energy costs will likely subdue interest from new

63 ACCC, [Retail Electricity Pricing Inquiry—Final Report June 2018](#), Australian Competition and Consumer Commission, 30 June 2018.

64 AEMC, [Updating the regulatory frameworks for embedded networks](#), Australian Energy Market Commission, 30 June 2019, accessed 15 September 2022.

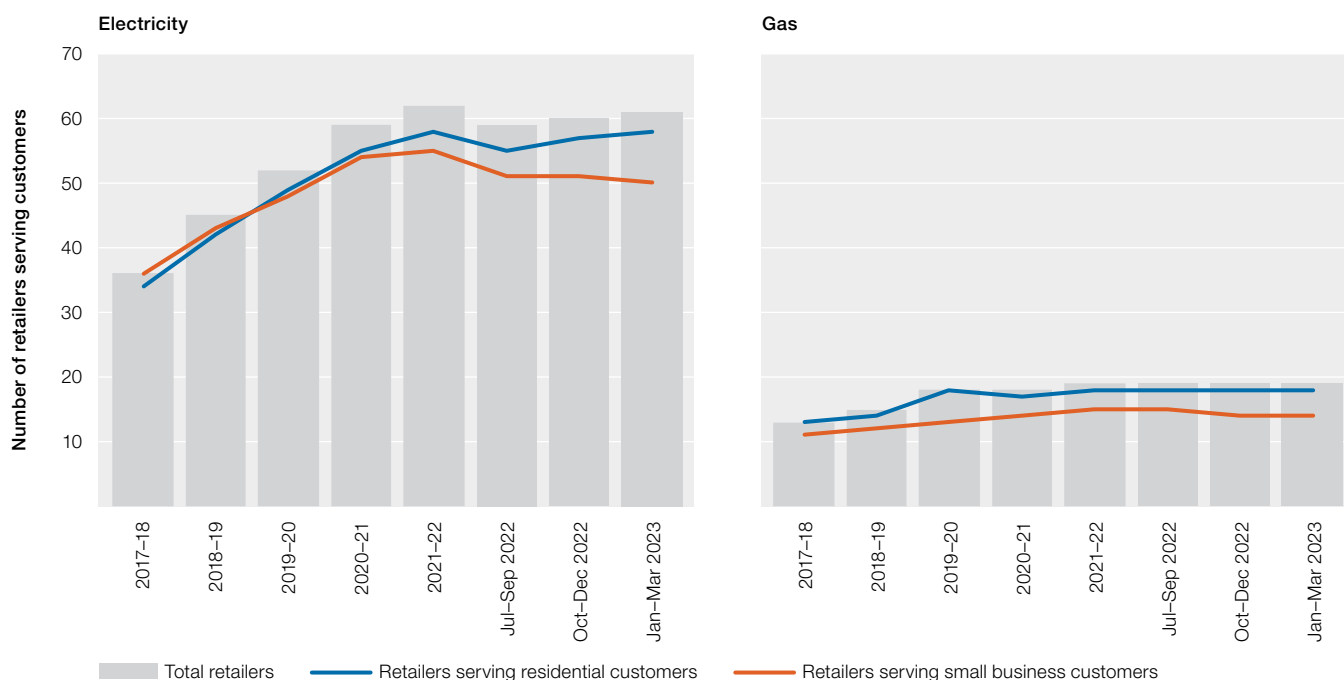
65 Tier 2 retailers include any retailer that is not Origin Energy, AGL Energy, EnergyAustralia, nor one of the primary regional government-owned retailers – Ergon Energy (Queensland), ActewAGL (ACT) and Aurora Energy (Tasmania).

market entrants until wholesale prices stabilise. This could weaken retail market competition and contribute to poorer outcomes for consumers.⁶⁶ Access to competitively priced hedging contracts had already been identified by standalone retailers as a barrier to entry and further expansion in 2020.⁶⁷

Regions with stronger levels of continuous retail price regulation are also heavily concentrated, including Ergon Energy in regional Queensland, Aurora Energy in Tasmania and ActewAGL. These primary retailers are government-owned (wholly or in part) businesses with little activity outside their home jurisdiction and were previously the sole regulated provider of retail electricity in that jurisdiction.⁶⁸ Due to a lack of competition and ongoing price regulation, the degree of market concentration in those regions remains stable (Figure 7.17).

Gas markets are generally less competitive than electricity markets, given their smaller scale and persistent issues in sourcing gas and pipeline services in some jurisdictions, and much higher levels of concentration (Figure 7.18).

Figure 7.16 Energy market – number of retail brands



Source: AER, *Quarterly retail performance report, Q3 2022–23*, June 2023; ESC, *Victorian energy market dashboard*, accessed 30 June 2023.

In its *Victorian Energy Market Report 2020–21*, the Essential Services Commission (Victoria) (ESC) noted the significant market share of larger retailers.⁶⁹ The ESC found customer preference to be ‘both persistent and striking’, given survey responses indicated price is the most important factor when switching and that large energy retailer offers are generally more costly than small and medium retailer offers. This issue is explored further in section 7.7.10.

7.7.2 Electricity

Between 1 July 2022 and 31 March 2023, the number of customers serviced by Tier 1 retailers decreased, by 0.16%, whereas the number of Tier 2 customers increased by 2.7%. Tier 2 retailers have increased their share of small customers in each year since at least 2016–17.⁷⁰ Over that period each of the big 3 retailers has lost ground, with Origin Energy the most impacted.

⁶⁶ AER, [Wholesale electricity market performance report – December 2022](#), Australian Energy Regulator, 15 December 2022, p. 56.

⁶⁷ AEMC, [2020 Retail Energy Competition Review](#), Australian Energy Market Commission, 30 June 2020, accessed 15 September 2022.

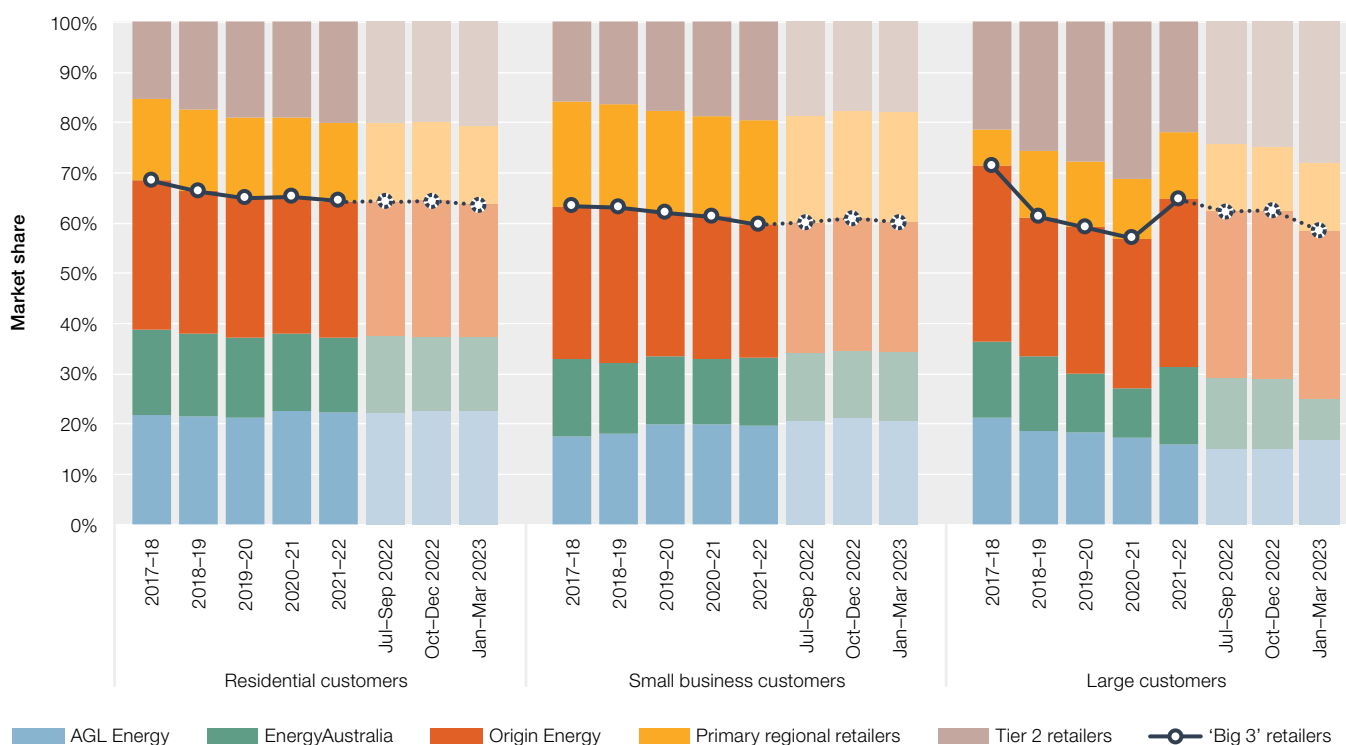
⁶⁸ AER, [Annual retail market report 2021–22](#), Australian Energy Regulator, 30 November 2022.

⁶⁹ Large retailers in Victoria include the big 3 plus Lumo Energy, Red Energy and Simply Energy.

⁷⁰ Retail customer numbers are not available prior to 2016–17.

Between 1 May 2022 and 31 July 2023, 11 Tier 2 retailers exited the market through the Retailer of Last Resort scheme, impacting approximately 34,000 customers who were (at least initially) transferred to Tier 1 retailers.⁷¹ While the relatively small number of customers impacted has not materially impacted market concentration data (Figure 7.17), the lack of new Tier 2 market entrants due to current market conditions could weaken competition in retail markets.

Figure 7.17 Energy retail market share – electricity



Note: All data as of 31 March 2023. Data includes customers in Queensland, NSW, South Australia, Tasmania and the ACT. Some differences may occur between annual and quarterly data to account for retailers revising their data when making their annual submission.

Source: AER, *Quarterly retail performance report, Q3 2022–23*, June 2023.

In NSW, the big 3 retailers serve 77% of small electricity customers, making it the most concentrated jurisdiction. Snowy Hydro (owned by the Australian Government and trading as Red Energy and Lumo Energy) serves 7% of small customers, with the remaining 13% served by other Tier 2 retailers.⁷²

7.7.3 Gas

As with electricity, AGL Energy, Origin Energy and EnergyAustralia are the dominant retailers in the gas market, serving just over 1.8 million (79% of a total 2.3 million) residential customers.⁷³ In the 9 months from June 2022, the big 3 retailers' share of the small customer market decreased from 81.3% to 79.7%.⁷⁴ Conversely, over the same period Tier 2 retailers increased their share of the market. In gas markets, the big 3 retailers have continued to lose their small customer market share to Tier 2 retailers since 2016–17 (Figure 7.18).

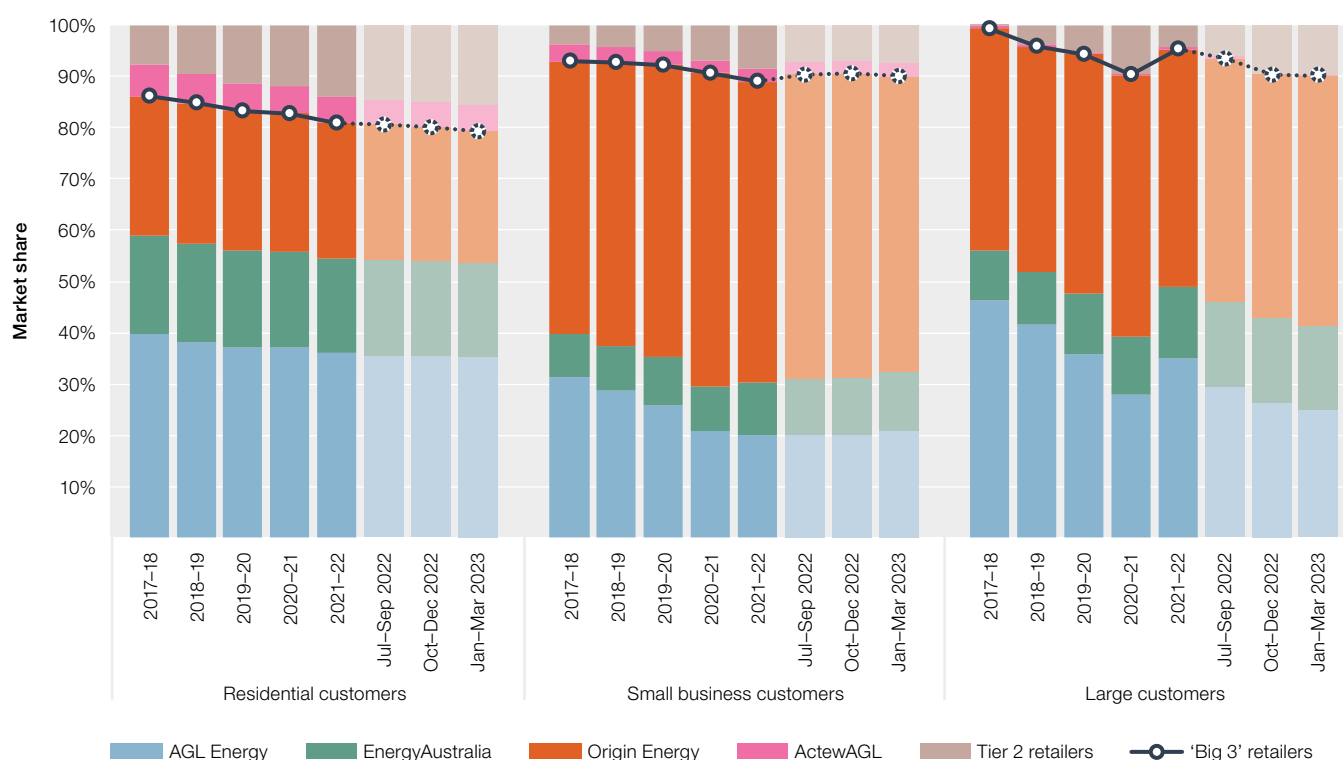
⁷¹ Includes Retailer of Last Resort data from 1 October 2022 and 31 July 2023, discussed earlier in this section.

⁷² Use of state-wide data masks levels of market concentration within some parts of regions with multiple distribution zones (Queensland and NSW). For example, market concentration is likely to be higher in regional NSW than in Sydney.

⁷³ Includes customers in Queensland, NSW, South Australia and the ACT. Does not include Victoria.

⁷⁴ AER, *Quarterly retail performance report Q3, 2022–23*, 28 June 2023.

Figure 7.18 Energy retail market share – gas



Note: All data as of 31 March 2023. Data includes customers in Queensland, NSW, South Australia and the ACT.

Source: AER, *Quarterly retail performance report, Q3 2022–23*, June 2023.

7.7.4 Vertical integration

In the electricity sector, many generators and retailers have integrated to become ‘gentailers’. Operating at either end of the energy supply chain is referred to as ‘vertical integration’, which provides benefits to energy retailers and generators by enabling them to manage price volatility in wholesale markets, with less need to hedge their positions in futures (derivatives) markets. These savings could then be passed on to consumers through lower retail prices. However, this strategy can reduce liquidity in derivatives markets, posing a barrier to entry or expansion for ‘independent’ retailers that are not vertically integrated.

Vertical integration also occurs in gas, but to a lesser extent. Interests in upstream gas production or storage can complement gas retailing or gas-powered electricity generation.

7.7.5 Consumer engagement

Many energy consumers can actively participate in retail energy markets and enter into a market contract with their retailer of choice.⁷⁵ Market contracts allow retailers to tailor their energy products, offering different tariff structures, discounted prices, carbon offsets, non-price incentives, billing options, fixed or variable terms and other features. Most consumers are currently on a market contract.

Customers without a market contract are placed on a standing offer with the retailer that most recently supplied energy at their premises (or, for new connections, with the retailer designated for that area). Standing offers were intended to provide a safety net for customers unable or unwilling to engage in the market, with prescribed terms and conditions and a suite of consumer protections that the retailer cannot change.

In July 2019, following a period of price deregulation, the ACCC determined that customers on standing offers were paying excessively high prices, disproportionately impacting customers experiencing vulnerability and/or facing barriers to participate in the market.⁷⁶ Since then, standing offer electricity prices have been set or capped by regulators in all jurisdictions (section 7.3.9).

⁷⁵ While full retail contestability applies in all regions, not all customers can access offers from a retailer other than their host retailer. Further, many customers within embedded networks are still limited to energy supply through their embedded network operator.

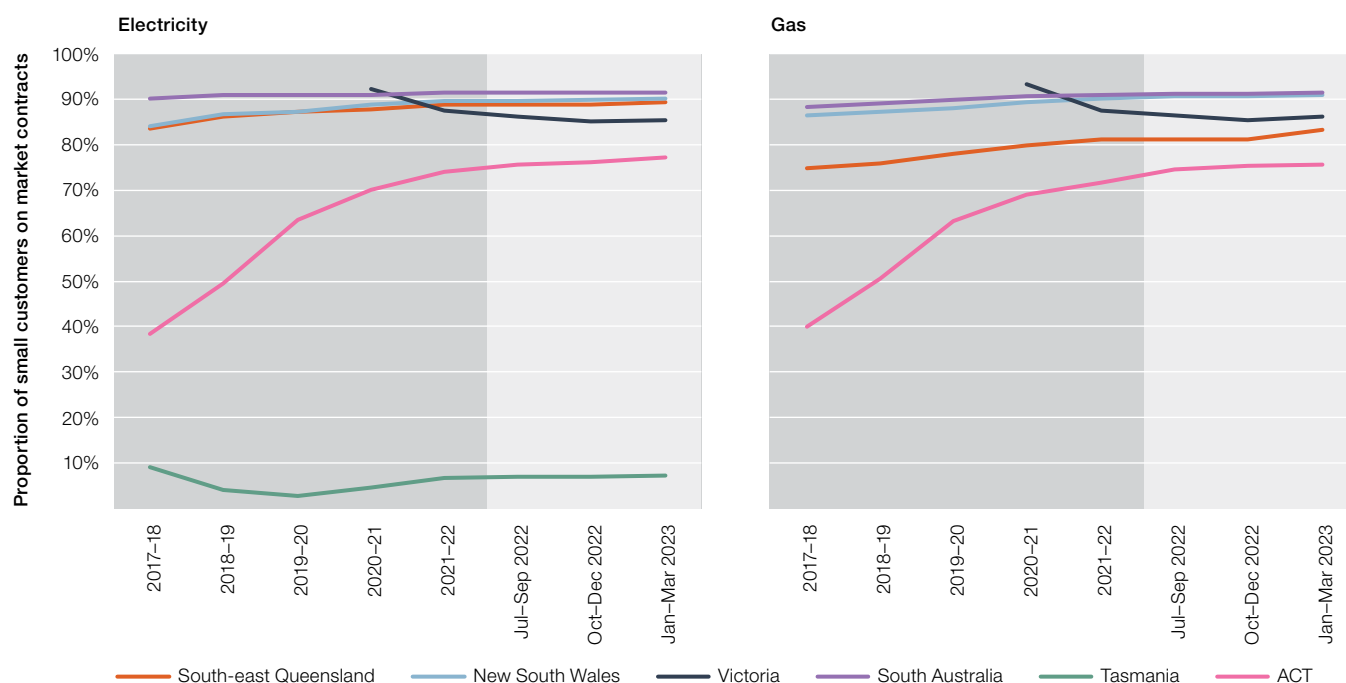
⁷⁶ ACCC, [Retail Electricity Pricing Inquiry—Final Report June 2018](#), Australian Competition and Consumer Commission, accessed 1 September 2023.

While customers on market contracts historically paid less, on average, than those on standing offers, more recently average prices paid by both cohorts are converging (section 7.4.1). Further, customers on market contracts do not necessarily receive the best price available. Contracts with expired benefits may be priced close to, or, in some instances, higher than the standing offer, meaning consumers need to continuously renegotiate or switch market contracts to maintain better prices.

Most standing offer customers have contracts with Tier 1 retailers. This reflects the position of these retailers as incumbents – the retailer that purchased the customer base at the time retail contestability was introduced – allowing them to retain customers that have never taken up a market contract and may face additional barriers to actively participate in the market.

However, in regions serviced by primary regional retailers, most customers are on standing offers. As partially government-owned retailers with ongoing price regulation, they have maintained strong market concentration, faced limited retail competition and have delivered relatively stable pricing for customers. As such, small customers in those areas have had less motivation and opportunity to pursue market offers. In Tasmania, new entrant retailers have offered market contracts to residential customers since early 2019, but the proportion of customers on market contracts remains comparatively low; the Tasmanian Government set standing offer prices that attracted Aurora Energy's market customers to switch back to the standing offer (Figure 7.19).

Figure 7.19 Small customers on market contracts



Note: Standing and market offer shares are based on the number of small customers at 31 March 2023 except Victoria (June 2023). Queensland electricity numbers exclude customers in regional Queensland, who largely remain on standing offers.

Source: AER, *Quarterly retail performance report, Q3 2022-23*, June 2023; ESC, Victorian energy market dashboard, accessed 30 June 2023.

7.7.6 Consumer participation

Competition in retail energy markets is intended to drive innovation, resulting in a wider range of products and services to meeting different customer preferences and demands. However, for a range of reasons, many consumers face barriers to actively participate in the market and secure the best offer for their situation. This can exacerbate existing structural inequalities, whereby those who can least afford it are paying higher energy rates.

Customer surveys regularly report that customers find the energy market difficult to navigate. In June 2023, Energy Consumers Australia (ECA) reported that 2 in 5 Australians do not feel there is enough easy-to-understand information available to make informed decisions about energy.⁷⁷ Retailers have adopted marketing strategies that make it difficult and time-consuming for customers to directly compare offers. This reinforces a lack of trust and low levels of engagement.

⁷⁷ ECA, [Evidence base to support the development of an effective communications campaign for energy consumers](#), Energy Consumers Australia, 27 July 2023.

Reforms in 2019 sought to make it easier for customers to compare offers by simplifying and standardising how retailers must present offers. The reforms require advertised discounts to be quoted against a 'reference bill', being the default market offer set by the AER (section 7.3.7).

The Better Bills Guideline, which commenced in March 2022, also seeks to make it easier for consumers to engage with the energy market by providing information to help them understand and compare their plan, identify whether their retailer may be able to provide a better offer, or consider options for new types of energy services (section 7.3.1).

The AER has also developed a suite of translated, shareable content for consumers who speak a language other than English.⁷⁸ Covering 8 languages, the content provides information on:

- › how to save money on energy bills
- › how to get help when having trouble paying bills or if having a dispute with a retailer
- › what happens if their energy provider goes out of business.

These reforms may improve customer engagement, but further inclusion considerations include:

- › cultural practices
- › lived experience of disability
- › low levels of literacy combined with complexity in energy markets, concepts and terms
- › status quo bias for consumers to stay with their default retailer or plan.
- › Market developments such as the rollout of smart meters and cost-reflective tariffs are adding additional layers of complexity to the market, making it harder for consumers to confidently engage. Other major barriers to consider include lack of trust towards energy institutions, providers and the government, and a lack of a single source of easy-to-understand information.⁷⁹

Improving outcomes for all consumers, in particular consumers experiencing vulnerability, will need further targeted measures. The AER's *Towards energy equity* strategy focuses on consumers experiencing vulnerability, drawing on research by the Consumer Policy Research Centre on understanding experiences of vulnerability and how different regulatory approaches can support consumers experiencing vulnerability (section 7.6.7).

7.7.7 Customer satisfaction

A customer's level of satisfaction with retail energy markets depends on several factors and can be influenced by price, perceived value for money, reliability, customer service, confidence in engaging with the market, technology uptake, ability to switch and retailer behaviour. Following sharp reductions in customer satisfaction with energy companies in 2018, Energy Consumers Australia's consumer sentiment surveys indicate consumer satisfaction and confidence is slowly improving (Figure 7.20).

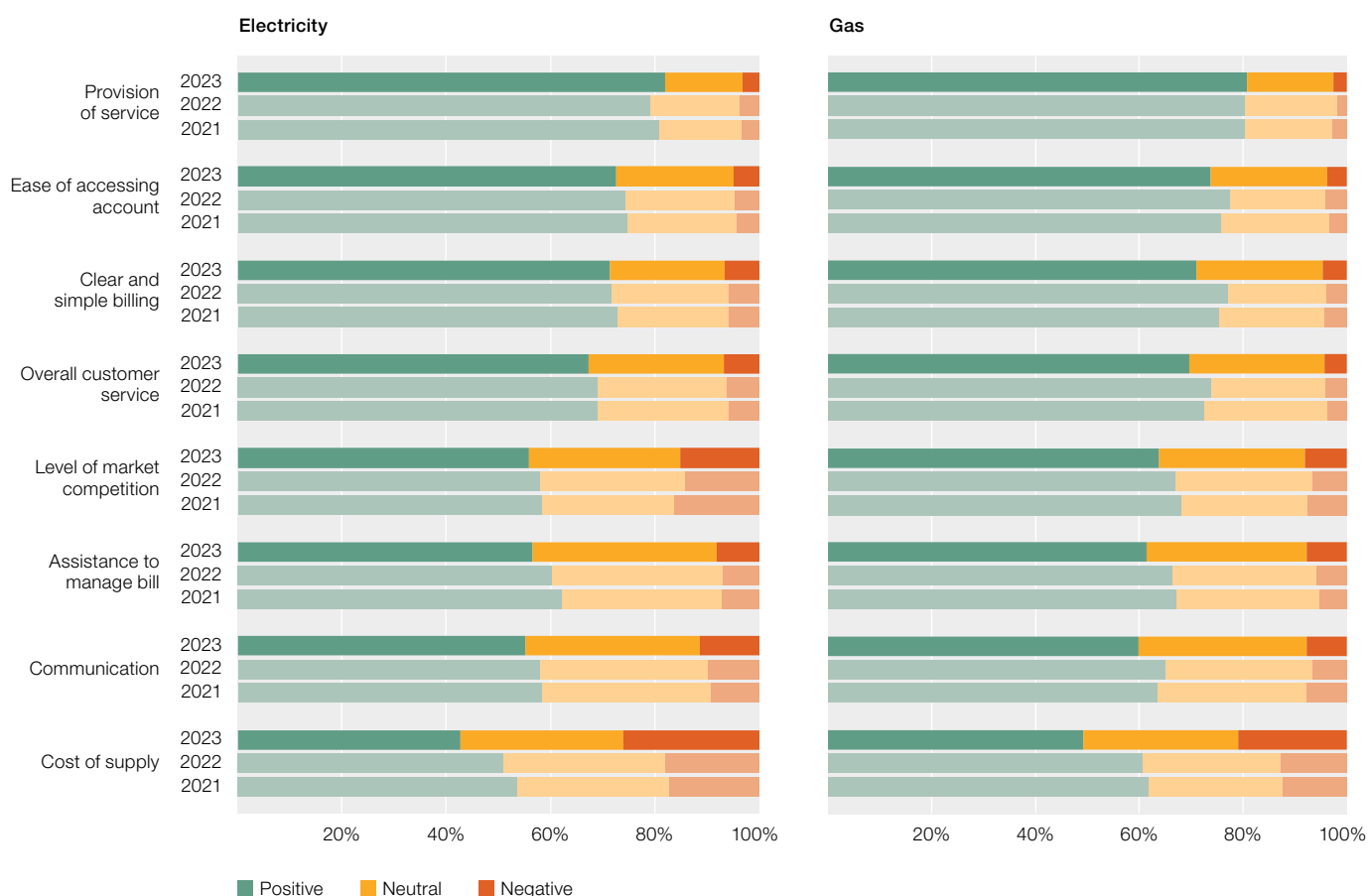
Results from the June 2023 survey indicated an overall increase in positive sentiment since 2021, but that the cost of supply was an increasing concern, with 'dissatisfaction with value for money' being one of the main reasons for customer switching (Figure 7.20). Most respondents (60%) were concerned that electricity and gas will become unaffordable for some Australians over the next 10 years.⁸⁰

78 AER, [Translated information to help energy consumers](#), Australian Energy Regulator, accessed 4 September 2023.

79 ECA, [Evidence base to support the development of an effective communications campaign for energy consumers](#), Energy Consumers Australia, 27 July 2023.

80 ECA, [Energy consumer sentiment survey June 2023](#), Energy Consumers Australia, accessed 2 July 2023.

Figure 7.20 Responses from energy consumer sentiment survey



Source: Energy Consumers Australia, *Energy consumer sentiment survey*, June 2023.

7.7.8 Consumer data right

The Australian Government is extending the Consumer Data Right (CDR) to cover the energy sector.⁸¹ This will allow consumers to require their energy retailer to share their data with an accredited service provider such as a comparison site. Giving consumers the right to safely transfer their energy data (such as their current energy deal and consumption patterns) to third parties of their choice should make it easier for them to make product choices, while promoting competition between retailers.

Tier 1 retailers were required to comply with non-complex consumer data requests from 15 November 2022, and for complex requests from 15 May 2023. Compliance time frames for other retailers has varied between November 2021 and May 2024, depending on the number of customers and complexity of the data request.⁸²

7.7.9 Price comparison websites and switching services

The variety of product structures, discounts and other inducements can make it difficult for energy customers to compare retail offers. Due to the fundamental role shopping around has in delivering savings to consumers, some customers use comparator websites to manage the complexity and range of offers in the market. Independent price comparator websites are run by the AER and Victorian Government.

The AER operates an online price comparator Energy Made Easy (energymadeeasy.gov.au) to help small customers compare market offers. The website shows all generally available offers and has a benchmarking tool that allows consumers to compare their electricity use with similar sized households in their area. The website is available to consumers in jurisdictions that have implemented the Retail Law (Queensland, NSW, South Australia, Tasmania and the ACT). The Victorian Government operates a similar online price comparator, Victorian Energy Compare (compare.energy.vic.gov.au).

⁸¹ Australian Government, [Consumer Data Right rollout](#), accessed 5 September 2023.

⁸² Australian Government, [CDR in the energy sector](#), accessed 5 September 2023.

Comparison websites and brokers can provide consumers with a quick and easy way of engaging in the market, but some services may not provide customers with the best outcomes. For example, commercial comparator websites may only show offers of retailers affiliated with the site. Commercial comparators also typically require retailers to pay a commission per customer acquired or a subscription fee to have their offers shown. These arrangements are opaque to the customer. Commissions may vary across listed retailers, creating incentives for websites to promote offers that will most benefit the comparator business rather than show the cheapest offer for the customer. Government-operated comparison sites avoid this bias by listing all generally available offers in the market.

In 2019 the ACCC and the AEMC recommended that the government prescribe a mandatory code of conduct to ensure price comparator and broker services act in the best interests of consumers.⁸³ The code would require the disclosure of commissions from retailers, show results from cheapest to most expensive, disclose the number of retailers and offers considered and provide a link to government comparator websites.

In 2022, a voluntary code was developed by the Energy Charter that partly addresses the ACCC and AEMC recommendations.⁸⁴ For example, the code provides for disclosures of commercial interests and other factors that could mislead consumers. However, it does not provide for sanctions for non-compliance or an independent dispute resolution process.

7.7.10 Customer switching

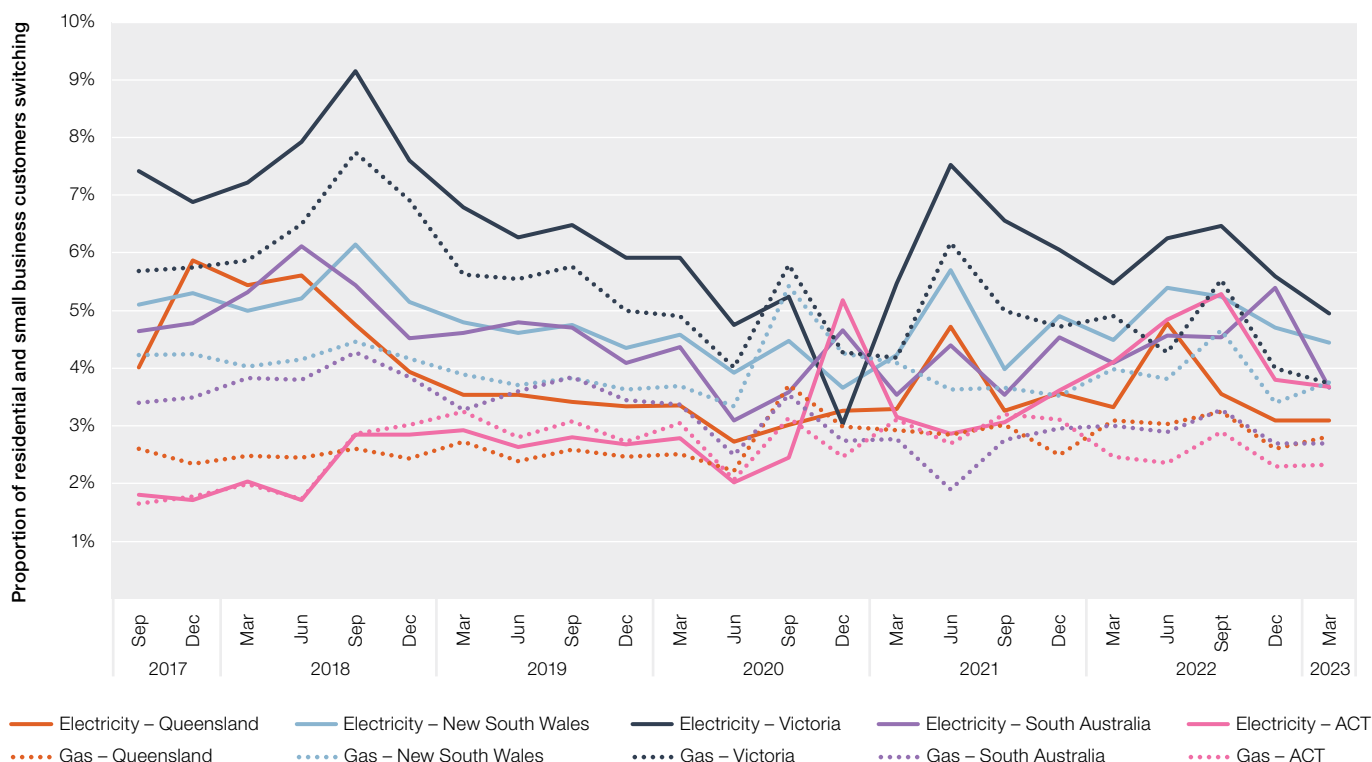
The rate at which customers switch retailers can be used to indicate the level of engagement in the market. But switching rates should be interpreted with care – switching may be low in a competitive market if retailers deliver good-quality, low-priced services that give customers no reason to change. Data on switching rates does not capture customer movements to new contracts with the same retailer, so it understates customer activity in the market. Conversely, switching data captures when an existing customer moves house and signs a new contract, even if it is with the same retailer (thus overstating customer activity).

Switching rates are typically lower in gas than in electricity. This may reflect fewer retailers participating in gas, meaning less choice and fewer potential customer savings. As a secondary fuel, gas is also typically a lower cost for consumers, so it may not receive the same attention.

83 ACCC, [Restoring electricity affordability and Australia's competitive advantage. Retail Electricity Pricing Inquiry – final report](#), Australian Competition and Consumer Commission, June 2018, accessed 15 September 2022, p. 282; AEMC, [2019 Retail Energy Competition Review](#), Australian Energy Market Commission, p. 282.

84 The Energy Charter, [National Customer Code for Energy Comparators & Energy Moving Services](#), May 2022, accessed 15 September 2022.

Figure 7.21 Switching activity – small customers



Source: AER, *Quarterly retail performance report*, Q3 2022–23, June 2023.

Reforms introduced in December 2019 aimed to make it easier for customers to switch retailer by allowing them to transfer within 2 days of a cooling-off period expiring.⁸⁵ The intention of this change was to limit retailers relying on ‘save’ activity (retailers contacting customers who try to switch and giving them a better offer to encourage them to stay) rather than competing for outside customers by offering better products and services, and to allow customers faster access to prices and products they want.

In many markets, engagement by even a limited number of customers can drive lower prices and product improvements that benefit all consumers. This is less true for energy markets, where retailers can easily identify and then price discriminate against inactive customers. Many market offers include benefits that expire after one or 2 years – customers who do not switch regularly may find themselves paying higher prices than necessary. As a result, a critical part of the AER and other regulators’ reform agenda is supporting consumers to understand impending changes in their energy contract and helping them find better offers, either with the same or an alternative retailer.

For example, the National Energy Retail Rules require retailers to notify small electricity and gas customers before any change in their benefits and provide advance notice of any price change.⁸⁶ In Victoria, retailers must also prominently display their ‘best offer’⁸⁷ on customers’ bills – every 3 months for electricity and every 4 months for gas – along with advice on how to access it. The Better Bills Guideline has brought this requirement to the rest of the NEM jurisdictions.

At the end of a fixed-term contract, retailers must inform customers in writing about their options, such as setting up a new contract or moving to another retailer. Retailers must ensure consumers are aware that they will be put onto a standing offer if they choose not to enter a new market contract with their current retailer.

Despite recent reforms focused on improving consumers’ access to information about better offers, switching activity appears to be relatively flat. It is difficult to observe any improvement in competitive outcomes for consumers from switching data alone without considering other information, such as customer satisfaction and energy affordability metrics.

85 AEMC, [National Energy Retail Amendment \(Reducing Customers’ Switching Times\) Rule 2019 No. 2](#), Australian Energy Market Commission, 19 December 2019, accessed 15 September 2022.

86 AEMC, [National Energy Retail Amendment \(Notification of the end of a fixed benefit period\) Rule 2017 No. 2](#), Australian Energy Market Commission, 7 November 2017; AEMC, [National Energy Retail Amendment \(Advance notice of price changes\) Rule 2018 no. 3](#), Australian Energy Market Commission, 27 September 2018.

87 Using a customer’s past usage and comparing what they pay on their current offer against the cheapest generally available offer.

7.7.11 Retailer activity and barriers to entry

Following the significant market events of winter 2022, the steady growth of new retailers entering the market has slowed (Figure 7.16). The high, volatile wholesale prices and reduced liquidity in contract markets following these events has likely deterred new entrants. In turn, this can compromise innovation and competition in the market.⁸⁸ Therefore, ensuring an orderly energy transition to minimise the risk of similar future events is integral to maintaining effective competition in retail energy markets.

While those events were unprecedented, retailers have noted other barriers to entry, such as:

- reintroduction of standing offer price caps
- limited access to competitive risk management contracts as a barrier to entry or expansion in South Australia, with almost half of all retailers in 2020 considering that contract market liquidity in South Australia was too low⁸⁹
- application of multiple regulatory frameworks – particularly in Victoria, which has a separate Energy Retail Code – due to the compliance costs this imposes; retailers considered the divergence of Victorian regulations from other jurisdictions has widened since 2019⁹⁰
- access to reasonably priced gas and pipeline capacity as barriers to entry and expansion, especially in Victoria – the Pipeline Capacity Trading and Day Ahead Auction reforms that commenced in March 2019 sought to reduce these barriers by increasing transparency in the gas market and improving access to unused pipeline capacity through a day-ahead auction and a capacity trading platform.

7.7.12 Product differentiation

In a competitive market, retailers offer a range of products and services to attract and retain customers. Energy retailers compete primarily on price. But since the introduction of standing offer price caps and restrictions around discounting, retailers are looking to differentiate their products in other ways.

Retailers can differentiate products by offering more price certainty or, alternatively, rewarding customers who are willing to be flexible in how and when they use energy. As technology improves, more products offering energy management services or linking to batteries, solar PV output or electric vehicles, including delivering additional revenue to consumers through virtual power plants, are becoming more common (section 7.9).

Some retailers also offer other incentives, such as carbon offsets, sign-up discounts and product add-ons and rewards, or they partner with other businesses. Bundling of products such as phone and internet alongside energy has also increased.

Retailers have also applied conditional discounts to attract customers. The proportion of residential market customers with conditional discounts has steadily tracked down over the past 5 years. In 2022, 15% of residential customers in NSW had conditional discounts, compared with 65% in 2018.⁹¹ Similar trends are observable across NEM regions. Recent analysis by the ACCC shows that customers on energy plans with conditional discounts pay similar prices to customers without conditional discounts, and that while plans with conditional discounts may be cheaper upfront, they can cost more in the longer term.⁹²

7.7.13 Offer structures

Electricity retailers typically use one of 3 tariff structures in their offers:⁹³

- Single-rate or 'flat' tariffs apply a daily (fixed) supply charge plus a simple usage charge for the electricity that a consumer uses.
- Time-of-use tariffs apply different pricing to electricity use at peak and off-peak times. Lower prices at off-peak times encourage consumers to shift their energy use to those times. It is intended to better reflect the prices retailers pay for electricity and encourage consumption during cheaper time periods.

88 ACCC, [Inquiry into the National Electricity Market – November 2022 Report](#), Australian Competition and Consumer Commission, 23 November 2022.

89 AEMC, [2020 Retail Energy Competition Review](#), Australian Energy Market Commission.

90 AEMC, [2020 Retail Energy Competition Review](#), Australian Energy Market Commission.

91 ACCC, [Inquiry in the National Electricity Market: June 2023 Report](#), Australian Competition and Consumer Commission, 30 June 2023.

92 ACCC, [Inquiry in the National Electricity Market: June 2023 Report](#), Australian Competition and Consumer Commission, 30 June 2023.

93 Gas offers have less variability in tariff structure, with flat tariffs typically applied. Usage charges may vary based on the overall volume of gas consumed and the time of year.

- › Demand tariffs charge a consumer based on their maximum point-in-time demand at peak times. Consumers can reduce their energy costs by shifting demand to off-peak periods. But even one day of high use at peak times will lead to higher charges for the whole billing period. This structure is intended to encourage consumers to stagger their energy use and reduce congestion on the network at peak times, also reducing system costs.

Retailers vary the levels of fixed and variable tariff components to appeal to different consumers. For example, consumers with low energy use may prefer an offer with a lower fixed charge but higher usage charges, while a consumer with flexibility around when they use energy may prefer an offer with lower off-peak charges or free weekend energy use.

Some retailers are trialling other price structures. Fixed price or subscription tariffs, where customers pay a (yearly or monthly) fee based on their typical electricity use, focus on simplicity and bill certainty. At the other end of the pricing spectrum, tariffs that pass through wholesale market spot prices allow consumers to dynamically interact with the wholesale market. These tariffs are best suited to consumers with battery storage who can adjust their use of grid-supplied electricity during high price periods.

New dynamic products are emerging as battery storage systems and electric vehicles become more affordable and as accessibility to consumer energy data improves (section 7.9). Some of these products have a time-of-use pricing structure but with rates set to encourage charging/discharging of batteries or electric vehicles at specific times. These products may also come with 'add-on' services, such as automated systems that learn consumers' electricity use patterns and charge/discharge batteries to maximise value. Some offers allow consumers to become part of a virtual power plant that aggregates multiple household solar and battery systems to provide power for network support or frequency control ancillary services or to engage in wholesale price arbitrage.

Similar to conditional discounting, dynamic products could cost consumers much more if they are unable to conform their energy use to the terms of the agreement. Because of this, they may only be suited to some types of consumers.

7.7.14 Non-price competition

In addition to competing on price and tariff structure, many retailers offer other incentives to entice customers. Financial incentives may include credit for continuing with a plan for a minimum period, for signing up online or through a partnering business or for referring a friend to the retailer.

Several retailers offer reward schemes that provide deals and discounts on a range of products and services. Non-financial benefits include carbon offsets for electricity use and product add-ons such as digital subscriptions. Retailers sometimes partner with another business to provide these additional benefits (for example, Alinta Energy partners with Kayo Sports to offer new customers a complimentary subscription to its online streaming service and Origin Energy partners with Woolworths' Everyday Rewards program).

Retailers increasingly offer products or services alongside electricity and gas to appeal to customers looking for the convenience of a single service provider. Internet and phone services, as well as solar PV and battery products, are offered by several energy retailers. AGL Energy also offers an electric vehicle subscription service.

7.8 Compliance, enforcement and customer complaints

Compliance and enforcement outcomes are a major part of the AER's regulatory toolkit. The AER seeks to ensure compliance with national energy laws so that consumers and energy market participants can have confidence that energy markets are working effectively and in their long-term interests.

The 12 months following the significant market events of June 2022 posed new and greater challenges for consumers, with energy affordability and cost-of-living pressures mounting and impacting all consumers, but particularly those experiencing vulnerability.

In the 2022–23 financial year, the AER undertook a range of compliance and enforcement actions specifically relating to consumers experiencing vulnerabilities, such as financial disadvantage and health issues requiring life support equipment, and consumers in embedded networks (sections 7.8.2, 7.8.3 and 7.8.4). Key actions included:

- › accepting a court enforceable undertaking by Trinity Place Investments Pty Ltd to contact and refund customers after it admitted to overcharging consumers for electricity by approximately \$34,000 between December 2019 and January 2023
- › receiving a \$67,800 payment for one infringement notice issued to CovaU and a court enforceable undertaking for alleged failure to present the prices for its standing offers (also known as standard contracts) on its website

- › releasing a joint compliance bulletin with the ACCC to remind retailers of their obligations around communicating pricing changes to their customers
- › initiating enforcement proceedings against AGL and 3 subsidiaries, alleging that in 2020 and 2021 AGL failed to notify customers that they had been overcharged as a result of AGL making deductions through Centrepay payments.⁹⁴

The AER has also undertaken and progressed numerous compliance and enforcement actions to ensure a secure and reliable energy supply and that Australia's energy markets operate efficiently and competitively.⁹⁵ AER's compliance functions cover all NEM regions, excluding the energy retail market in Victoria, which is regulated by the Essential Services Commission (Victoria).

7.8.1 Compliance and enforcement priorities for 2023–24

The AER has settled its compliance and enforcement priorities for 2023–24, which sees some updated areas of focus:

- › improve outcomes for customers experiencing vulnerability, including by improving access to retailer hardship and payment plan protections
- › make it easier for consumers to understand their plan and engage in the market by focusing on compliance with billing and pricing information obligations, including the Better Bills Guideline
- › support power system security and an efficient wholesale electricity market by focusing on generators' compliance with offers, dispatch instructions, bidding behaviour obligations and providing accurate and timely capability information to AEMO
- › improve market participants' compliance with performance standards and standards for critical infrastructure
- › clarify obligations and monitor compliance with reporting requirements under the new Gas Market Transparency Measures.

The AER will also act where serious issues impact consumers experiencing vulnerability, such as life support customers and customers impacted by family violence.

7.8.2 Customers in hardship

In the 2022–23 financial year, key compliance measures undertaken by the AER to better support customers in hardship included:

- › continuing to work with community sector participants to develop a more proactive approach to identifying hardship trends, including delivery of capacity-building events to promote broader understanding of provisions such as hardship and payment plans
- › provision of written materials to retailers reminding them of their obligations to promptly identify customers in financial difficulty and offer appropriate payment plans, including the AER's expectations of best practice for retailers engaging with consumers demonstrating hardship indicators
- › issuing 4 retailers with compulsory information-gathering notices to check compliance with hardship protections and preparing to share learnings in late 2023.

7.8.3 Life support

The AER has an enduring priority to ensure retailers comply with obligations under the Retail Law that safeguard customers requiring life support equipment. All retailers and distribution network service providers operating under the Retail Law and Retail Rules are required to comply with these obligations – failure to do so could have dangerous and even fatal consequences.

⁹⁴ The AER alleges that 575 customers – most if not all of whom would have been experiencing vulnerability including financial disadvantage – were impacted, and that AGL failed to use best endeavours to refund the overcharges within the required time periods. Centrepay is a bill paying service whereby people receiving Centrelink payments, such as job seeker, can elect to have regular deductions made for essential goods and services.

⁹⁵ Further information is available in the AER's [Annual compliance and enforcement report 2022–23](#), 26 July 2023.

In August 2022, Aurora Energy paid \$203,400 in penalties following the AER issuing 3 infringement notices relating to alleged breaches of retailer obligations for life support customers under the Retail Law, including failing to send:

- › information packs to customers within 5 days of the customer advising of life support equipment requirements
- › reminder notices to customers who had not returned a medical confirmation form
- › a deregistration notice to customers before deregistering their life support registration.

7.8.4 Embedded networks

Many consumers in embedded networks (section 7.2.3), particularly those in residential parks, social housing and retirement and nursing homes, are likely to have lower incomes and be more likely to experience vulnerability. To improve outcomes for consumers in embedded networks, the AER introduced new obligations on exempt sellers under version 6 of the Retail Exempt Selling Guideline, released in July 2022.⁹⁶

The updated guideline introduces a new hardship policy condition to ensure residential customers in embedded networks who experience payment difficulties due to hardship can access adequate support to better manage their energy bills.

To support compliance with the updated guideline, the AER:

- › published a range of fact sheets clearly explaining the rights and obligations of exempt sellers and their customers⁹⁷
- › engaged widely with ombudsmen, industry and consumer groups, including through webinars and public forums
- › published translated and easy English facts sheets for small businesses and consumers, outlining their rights and protections⁹⁸
- › published practical steps that off-market customers can take if their exempt seller fails, including alternative retailer options
- › wrote to all exempt sellers to inform of their obligations under the new policy.

In October 2022, the AER published a draft Network Exemptions Guideline for public consultation.⁹⁹ Key concerns raised by stakeholders include the inherent vulnerability of consumers in embedded networks and the disadvantage associated with challenges they may face accessing competitive energy offers. The AER is reviewing the exemptions framework for embedded networks under the *Towards energy equity* strategy (section 7.6.7).

The AER maintains ongoing investigations relating to embedded networks, including an alleged failure by an embedded network operator to join an energy ombudsman scheme and alleged failures to undertake appropriate registrations with AEMO or AER while owning, operating or controlling an embedded network.

7.8.5 Customer complaints

Customer complaints can cover issues such as billing discrepancies, wrongful disconnections, the timeliness of transferring a customer to another retailer, supply disruptions, credit arrangements and marketing practices.

Customers can lodge a complaint directly with their retailer in the first instance. If a customer is unable to resolve an issue with their retailer, they can then take the complaint to the jurisdictional energy ombudsman scheme, which offers free and independent dispute resolution.

The number of electricity and gas complaints received by energy retailers decreased markedly across all jurisdictions in 2021–22 except in the ACT, where complaints increased by 28% (Figure 7.22). This trend was observable in the previous year, and may be due to COVID-19-related disruptions to the business operations of primary retailer ActewAGL and rising energy prices.

96 AER, [Retail Exempt Selling Guideline](#), Australian Energy Regulator, 15 July 2022.

97 AER, [AER releases factsheets on exempt selling](#), Australian Energy Regulator, 28 July 2022.

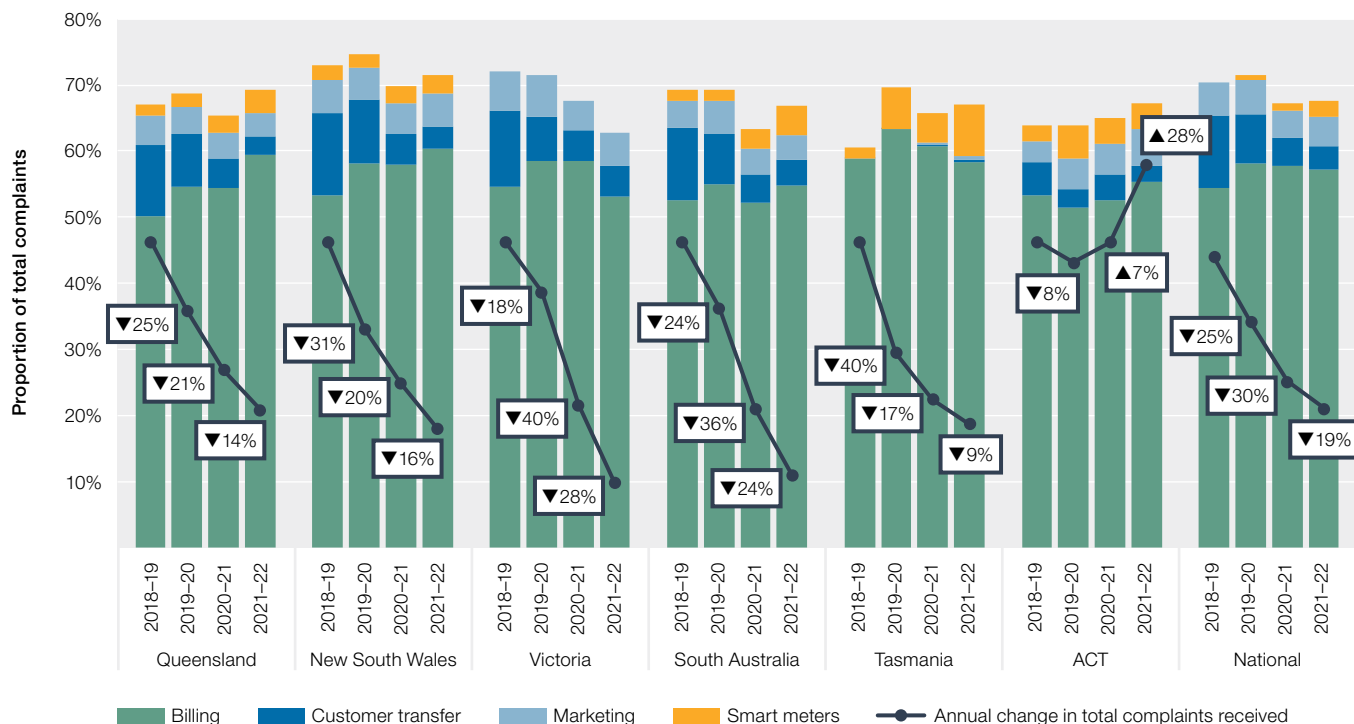
98 AER, [Consumers in embedded networks](#), Australian Energy Regulator, accessed 30 August 2023.

99 AER, [Draft Network Exemptions Guideline \(version 7\)](#), Australian Energy Regulator, 31 October 2022.

The overall decline in complaints received by retailers is in line with stronger consumer protections introduced in response to the COVID-19 pandemic. The AER's Statement of Expectations (and the equivalent Victorian response) prevented disconnection, debt collection and credit default listing for customers experiencing financial stress. The continued trend of lower overall complaints following the formal cessation of those measures in June 2021 suggests ongoing behavioural change by retailers.

It is not surprising that billing complaints have increased in most jurisdictions as consumers' primary concern is unexpectedly high bills. Other billing issues include errors, incorrect tariffs, estimation of energy use, fees and charges, and back billing. The AER expects to see billing complaints continue to increase as retail energy prices continue to rise.

Figure 7.22 Complaints received by energy retailers

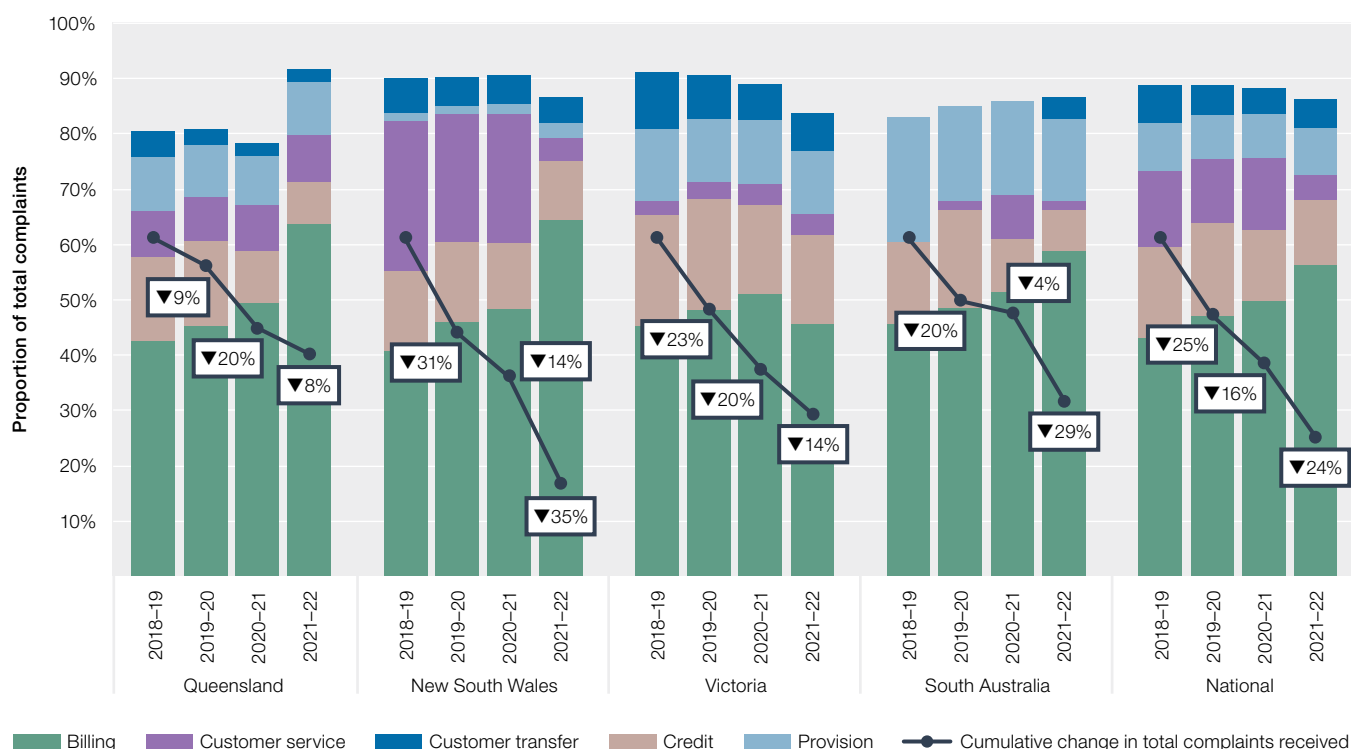


Note: Billing includes complaints about prices, billing errors, payment arrangements and debt recovery practices. Customer transfer includes complaints about timeliness of transfer, disruption of supply due to transfer and billing problems directly associated with a transfer. Marketing includes complaints about sales practices, advertising, contract terms and misleading conduct. Smart meters includes all complaints related to metering contestability. Complaints do not sum to 100% as some customer complaints defined as 'other' are not included in the above data. 'Other' complaints relate to issues outside the retailer's control – for example, complaints about price rises due to wholesale and network costs.

Source: AER, *Quarterly retail performance report*, Q3 2022–23, May 2023; ESC, Victorian energy market dashboard, data as of 30 June 2023.

The overall number of electricity and gas complaints received by jurisdictional energy ombudsmen schemes has also continued to trend downward, while complaints about billing have increased significantly (Figure 7.23). Because ombudsmen schemes require customers to raise complaints with their retailer in the first instance, assessing retailers' complaint data in conjunction with ombudsman complaint data can provide an indication of the effectiveness of retailers' dispute resolution outcomes.

Figure 7.23 Complaints received by jurisdictional energy ombudsmen



Note: Annual change in total complaints data includes all cases recorded by ombudsman schemes for electricity and gas industries. Annual change in total complaints data includes enquiries and complaints in relation to energy retailers, distribution networks and embedded network operators. Specific complaint type data includes all cases recorded by ombudsman schemes for electricity, gas and water industries. The proportion of water related complaints is immaterial.

Source: Annual reports by ombudsman schemes in Queensland, NSW, Victoria and South Australia.

7.9 The evolving electricity market

As the NEM rapidly transitions towards renewable energy generation, solutions such as energy storage and demand response are required to balance supply and demand. Demand response involves consumers changing their energy use in response to price or other market signals to contribute towards grid stability. Small household-level changes to grid consumption, when done at strategic times by large numbers of consumers, can deliver significant benefits to a system increasingly driven by variable renewable energy. Flexible demand response may also avoid the need to invest in dispatchable generation or grid-scale storage to 'top up' intermittent wind and solar generation.

As the NEM's regulatory framework evolves to keep pace, and consumer energy resources (CER) such as rooftop solar, home batteries and electric vehicles become more widely adopted, consumers will have greater opportunities to participate in demand response. This will unlock benefits such as lower energy bills and credits in exchange for:

- shifting electricity use drawn from the grid to times of peak supply, such as the daytime 'solar sponge' when rooftop solar generation is peaking and demand is lower, and minimising use during periods of high demand and lower supply
- reducing overall energy drawn from the grid by optimising rooftop solar, home battery storage, electric vehicle batteries and energy efficiency measures
- selling electricity back to the grid at times when demand comes close to or outstrips supply.

This is great news for some consumers. Recent CSIRO research found that, when combined with home energy efficiency improvements, converting to electric vehicles and appliances could save an average household up to \$2,250 per year.¹⁰⁰ Conversely, the CSIRO modelling found that consumers who continue to use cars and appliances powered by fossil fuels will face escalating bills.¹⁰¹

¹⁰⁰ ECA, [Stepping Up: A smoother pathway to decarbonising homes](#), Energy Consumers Australia, accessed 5 September 2023.

¹⁰¹ ECA, [Stepping Up: A smoother pathway to decarbonising homes](#), Energy Consumers Australia, accessed 5 September 2023.

ECA recommends enhanced and coordinated planning across all tiers of government to avoid worsening the gap between households that can actively participate in transitioning energy markets and those that cannot. This would include measures such as:

- › encouraging customer uptake of electric vehicles to leverage the ability for electric car batteries to optimise the grid and reduce energy prices
- › reducing barriers for apartment dwellers and renters to electrify their homes
- › carefully planning for the decline of household gas use, ensuring safeguards are in place for consumers less able to transition as prices likely escalate.¹⁰²

In 2021, the Energy Security Board released the CER Implementation Plan¹⁰³, which outlines reforms that are required to unlock the benefits of the rapid uptake of consumer energy resources, while also reducing the risks created by the speed and scale of the change program to support their integration.

The ESB program has been aimed at ensuring consumer energy resources are optimised at a system-wide level so that:

- › demand reductions, especially at peak periods, are maximised – taking pressure off generation requirements and local network constraints
- › any network investments required to integrate consumer energy resources are efficient and cost-effective.

The effective integration of consumer energy resources into the electricity system presents a significant opportunity to lower electricity costs for all electricity consumers. By effectively integrating these resources, it is possible to avoid the need for more costly grid and generation investment. Increasingly, energy service providers are entering the market offering energy services that enable consumers to sell their electricity back into the grid at times when it is needed. However, the success of these services will require effective consumer engagement and for consumers to have trust and confidence that these new services will work for them.

Key objectives of the CER Implementation Plan include rewarding consumers for their flexible demand and generation, supporting energy market innovation, ensuring effective consumer protections are in place and allowing networks to accommodate consumer energy resources and manage security as well as providing visibility and tools to the system operator to operate a safe, secure, reliable system.

Through the plan, the ESB and market institutions have focused on identifying regulatory gaps and developing solutions to key issues, including governance and compliance with CER technical standards, consumer protection frameworks, CER interoperability and data transparency.

As the ESB's term draws to a close in 2023, emphasis will shift towards working with governments and sector stakeholders to progress reform and harness opportunities to effectively integrate consumer energy resources. It is important that market and regulatory arrangements support integration of consumer energy resources, demand-side participation and new technologies and do so in a way that empowers and protects consumers. Harnessing CER assets and the new energy services that they enable is critical for an orderly and cost-effective energy transition.

Key reforms that have been progressed under the plan are outlined in Table 7.3.

¹⁰² ECA, [Stepping Up: A smoother pathway to decarbonising homes](#), Energy Consumers Australia, accessed 5 September 2023.

¹⁰³ ESB, [Integration of consumer energy resources \(CER\) and flexible demand](#), Energy Security Board, accessed 5 September 2023.

Table 7.3 Progress towards the CER Implementation Plan

| Reform | Progress |
|--|---|
| Update governance and compliance arrangements for technical standards to ensure CER technologies can effectively integrate with the NEM and can communicate across different parties within the market, including AEMO, electricity distribution network service providers and retailers. Effective governance of standards helps to promote integration of consumer energy resources, as well as system security and reliability. | The AEMC has published a final report with recommendations for implementing CER technical standards, including their regulation by jurisdictions and energy market bodies. ¹⁰⁴ |
| Provide policy direction and advice on the implementation of flexible export limits, allowing export limits on consumer energy resources to be varied based on available network capacity. | On 31 July 2023, the AER released a set of priority actions for flexible export limit, focusing on 4 themes of increased consistency across jurisdictions, increased transparency, stronger governance and increased consumer understanding. ¹⁰⁵ |
| A proposed change to the electricity rules to allow consumers to engage a separate provider for their consumer energy assets (such as EV charging, solar panels and/or battery devices), and facilitate the active participation of consumer energy resources and flexible demand in the provision of market services. | On 27 July 2023, the AEMC published a directions paper that responded to stakeholder input to the proposed rule change, as well as a methodology paper for the cost-benefit analysis that will inform the rule change. ¹⁰⁶ The Draft Determination is due 12 October 2023. |
| Review the consumer protections framework to ensure it remains fit for purpose in a transitioning retail energy market in which consumers can purchase new energy services (e.g. load management and virtual power plant services) that go beyond traditional retail services. ¹⁰⁷ | The AER published an options paper in October 2022 that proposed 3 different regulatory models for stakeholder feedback, including taking a more tiered approach to the current framework to recognise the more diverse range of energy products and services, or moving to a principles-based or outcomes-based framework. The AER plans to provide advice to Energy Ministers in late 2023 on the case for reform of the consumer protections framework and potential reform models. ¹⁰⁸ |

7.9.1 Rooftop solar PV

The uptake of rooftop solar PV systems continues to grow across the NEM. There were over 274,000 new installations in 2022 and, as of January 2023, more than 2.9 million households and businesses have installed rooftop solar PV systems (Figure 7.24). Ongoing subsidies provided by the Australian Government and some state governments, combined with falling costs of solar PV systems, have helped to sustain the growth in new installations.

In 2021, all NEM regions set new records for installed capacity, with a 9% overall increase compared with the previous record set in 2020 (2,687 MW in 2021 and 2,470 MW in 2020). While the overall rate of installations across NEM regions slowed in 2022, this was likely due to supply chain issues and severe weather events.

As of 30 June 2023, there was a total 17,683 MW installed rooftop solar capacity registered across NEM regions (Figure 3.14). The Clean Energy Council anticipates rooftop solar installations to continue to increase in 2023 and beyond, as consumers are motivated to offset high energy prices.¹⁰⁹

¹⁰⁴ AEMC, [Final report: Review into consumer energy resources technical standards](#), 21 September 2023.

¹⁰⁵ AER, [Review of regulatory framework for flexible export limit implementation](#), Australian Energy Regulator, accessed 5 September 2023.

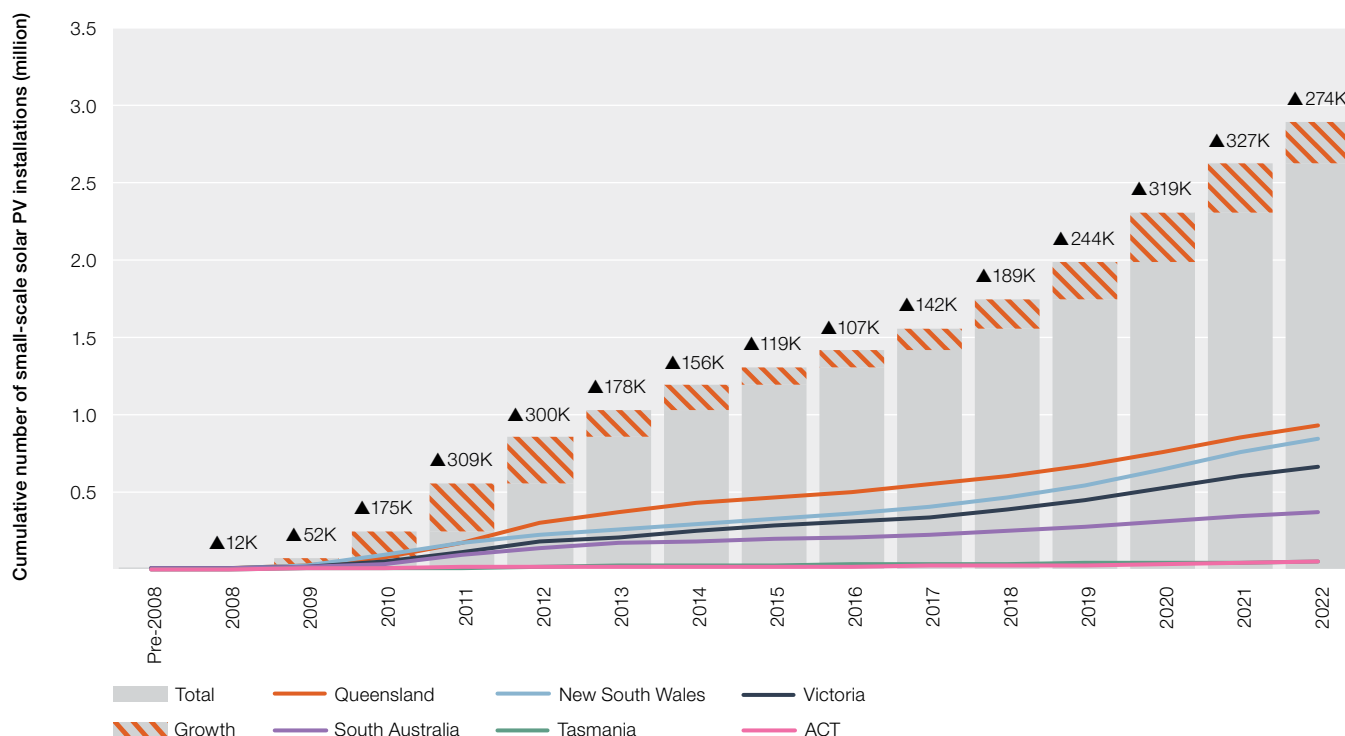
¹⁰⁶ AEMC, [Unlocking CER benefits through flexible trading](#), Australian Energy Market Commission, accessed 5 September 2023.

¹⁰⁷ AER, [Review of consumer protections for future energy services](#), Australian Energy Regulator, 9 December 2022.

¹⁰⁸ AER, [Review of consumer protections for future energy services](#), Australian Energy Regulator, 9 December 2022.

¹⁰⁹ Clean Energy Council, [Clean Energy Australia Report 2023](#), 17 April 2023.

Figure 7.24 Small-scale solar PV installations



Note: Small-scale generation units have a capacity of no more than 100 kilowatts (kW) and a total annual electricity output of less than 250 megawatt hours (MWh).

Source: Clean Energy Regulator, Postcode data for small-scale installations, data as of 30 June 2023.

Consumers generally sell unused electricity produced by solar PV systems to their retailer, in exchange for a feed-in tariff. This tariff is generally a flat per kilowatt hour value and is not linked to the actual value of the excess electricity to the NEM. Excess solar PV generation has created network congestion, resulting in some networks limiting the amount of excess electricity that consumers can export to the grid. Flexible export limits are intended to incentivise consumers to time their exports to when additional energy is needed.

7.9.2 Demand response through smart technology

Smart meters

Smart meters measure how much electricity is used at a premises and at what times. This data is shared in 5-minute or 30-minute intervals with the energy user, retailer and network operator. Access to real-time data allows for retailers to charge different prices depending on when the energy is consumed, which supports demand response and, ultimately, grid stabilisation. Many retailers now offer 'time-of-use' tariffs; low and in some instances zero tariffs for electricity used during peak solar generation – roughly between 10 am and 3 pm. Customers without smart meters generally cannot access time-of-use tariffs.

Smart meters also enable distribution network service providers to monitor power quality and act more rapidly when supply interruptions occur. A well-managed smart meter rollout can help optimise the grid, resulting in fewer outages, less need for costly infrastructure upgrades and increased penetration of cheaper renewable energy. As with other energy transition technologies, there is risk of some users being 'left behind', unable to take advantage of innovative technologies and retail offers if the smart meter rollout does not ensure appropriate safeguards are in place to protect consumers.

On 30 August 2023, the AEMC released its final report of the review of the regulatory framework for metering services.¹¹⁰ The AEMC recommended a target that all NEM customers have a smart meter by 2030. The AEMC recommended that customers experiencing vulnerability are well supported, including with any property remediations necessary to install smart meters.¹¹¹ The reforms focus on:

- › improving safeguards to consumers against unexpected cost increases and improved information for informed decision-making, as well as improved meter installation processes
- › supporting effective use of smart meter data, by ensuring consumers can access their own energy use data in real-time and ensuring distribution network service providers can access power quality data in their service area to better support efficient network operation and planning, for consumers' long-term benefit.¹¹²

In Victoria, nearly all small customers have a smart meter (96% to 99% depending on customer segment and distribution network service provider) due to a mandated rollout of smart meters in 2006. In other NEM regions the rollout is slower, ranging from 26% to 66%.¹¹³

Smart technology and devices

Customers with smart meters can participate in demand response programs run by retailers, distribution network businesses or third-party energy providers. Demand response refers to a temporary shift or reduction in electricity use by consumers to support power system stability.

The simplest demand response programs offer consumers financial incentives to reduce electricity consumption when they receive an alert from their retailer or network service provider. More sophisticated programs include technologies that optimise solar PV and storage systems; and load control devices that automatically reduce power consumption from appliances such as air conditioning, hot water systems or pool pumps if required. Automating consumer participation in these programs is likely to result in increased uptake.

The Australian Renewable Energy Agency (ARENA) has funded several 'virtual power plant' trials that coordinate output from small-scale solar and battery systems to provide services equivalent to a large-scale generation plant.¹¹⁴

These opportunities provide a new source of competition across the supply chain. Demand response can be deployed in the wholesale or frequency control ancillary service (FCAS) markets to manage or limit price spikes and can also be used by networks to manage system constraints. A demand response mechanism that allows consumers to directly offer demand response into the wholesale market commenced in the NEM in October 2021 but is restricted to large customers. Small customers are limited to offering wholesale demand response through programs offered by their retailer.

However, dynamic demand also increases complexity and puts a heavier burden on retailers and consumers to behave responsively, rather than to passively receive electricity prices as set by AEMO and the NEM Dispatch Engine (NEMDE). Research shows that consumers already have a low level of engagement in the energy market and many do not have the energy literacy to make informed choices that best suit their needs. This then puts further reliance on retailers and other energy service providers to create and innovate energy products and services that either help consumers manage their energy use in response to price signals or make these decisions on behalf of consumers. In ECA's October 2021 Consumer Behaviour Survey, only 67% of respondents in Victoria knew they had a smart meter, despite Victoria installing smart meters in more than 97% of households through a targeted installation scheme.¹¹⁵ At the Energy and Climate Change Ministerial Council meeting in February 2023, Ministers agreed on a national energy literacy program to be further explored by Energy Consumers Australia to address knowledge gaps and ensure consumers are exposed to consistent, targeted and accessible messaging.¹¹⁶

Where the benefits rely on consumers purchasing different forms of technology, this will exacerbate equity gaps between consumers – for example, between consumers who own their home and consumers who rent.

110 AEMC, [Review of the regulatory framework for metering services – Final report](#), Australian Energy Market Commission, 30 August 2023.

111 For example, some properties – particularly those in apartment complexes – may have insufficient meter board space for the newer, larger smart meters, or the meter box may have asbestos components, requiring costly upgrades before a smart meter can be installed.

112 AEMC, [Review of the regulatory framework for metering services – Final report](#), Australian Energy Market Commission, 30 August 2023.

113 The proportion of small customers with smart meters varies by customer segment and DNSP. For the latest data see AER, [Electricity DNSP Operational performance data 2006-22](#), Australian Energy Regulator, 7 July 2023.

114 ARENA, [At a Glance](#), Australian Renewable Energy Agency, 30 June 2023.

115 ECA, [Consumer Behaviour Survey](#), Energy Consumers Australia, October 2021, accessed 15 September 2022.

116 DCCEE, [Energy and Climate Change Ministerial Council Meeting – 24 February 2023](#), Department of Climate Change, Energy, the Environment and Water, accessed 5 September 2023.

Recent regulatory reforms have focused on ensuring the arrival of new technologies and consumer energy resources are integrated into the regulatory framework. However, as observed in the energy use section of this chapter, there is a risk that the focus on active or ‘digital’ energy efficiency has meant that other forms of energy efficiency (such as thermal efficiency of housing, which has the benefit of being ‘set and forget’) may be lagging.

To offset the widening equity gap between different types of consumers, measures will also need to be accessible by low-income households or consumers experiencing barriers to engagement. These barriers could arise through factors such as not having the literacy or numeracy skills to navigate the energy market, dealing with ill physical or mental health, or having limited financial resources or autonomy over their energy use.

Home batteries and electric vehicles

Battery storage and smart appliances enable consumers to optimise their electricity use, reducing the amount of power they need to withdraw from (and inject into) the network. Batteries are usually paired with rooftop solar PV systems. While only 6.6% of the solar PV systems installed in the NEM in 2022 had an attached battery system, this is a significant improvement over 2021, where only a little over 3% had an attached battery system.¹¹⁷

Electric vehicles, like dedicated batteries, can draw electricity from the grid or rooftop solar, and potentially draw energy from the vehicle battery to power the home or sell back to the grid. Electric vehicle uptake in Australia has been slower than in other developed countries, but the number of electric vehicles is beginning to accelerate as costs fall and charging infrastructure is expanded. There were almost 40,000 electric vehicles sold in Australia in 2022, up from around 21,000 in 2021 and 6,900 in 2020.¹¹⁸

Although electric vehicles are still a small part of the market, electricity retailers are beginning to develop offers that reflect the specific needs of electric vehicles, including price incentives to encourage charging and discharging of batteries or electric vehicles at strategic times to support grid stability. The ESB has consulted on how to integrate electric vehicles in its implementation plan for consumer energy resources on the expectation that electric vehicle uptake will increase. Earlier this year, the Australian Government released its National Electric Vehicle Strategy. The strategy sets out the Government’s vision to increase the uptake of electric vehicles to reduce emissions and improve the wellbeing of Australians.¹¹⁹

7.9.3 Standalone power systems

Standalone power systems generate and distribute electricity but are not physically connected to the main grid. Standalone power systems can serve an individual or community (microgrids) and usually consist of renewable generation units, battery storage and back-up generation. Improvements in energy storage and renewable generation technology are enabling more customers to take up this form of energy supply. In some regional and remote areas, standalone power systems are a lower cost option than connecting to the grid.

Before 2022, standalone power systems were not covered by the Retail Law and Rules, which meant those customers were not afforded the same protections and reliability standards as NEM customers. In early 2021, energy ministers began consulting on regulatory changes to make it easier for distribution network businesses to offer standalone power systems (where economically efficient to do so) while maintaining appropriate consumer protections and service standards.¹²⁰

From 1 August 2022, standalone power systems were made more accessible and safer for consumers. Distribution network service providers can now connect customers to a standalone power system where it may be cheaper, safer and more reliable than connection to the grid. These will become regulated standalone power systems and customers connected to regulated standalone power systems receive an equivalent level of consumer protections and will pay for their electricity in the same way as grid customers.

117 Clean Energy Regulator, [Solar PV systems with concurrent battery storage capacity by year and state/territory](#), data at 30 June 2023, accessed 4 September 2023.

118 Electric Vehicle Council, [State of Electric Vehicles](#), July 2023, accessed 5 September 2023.

119 DCCEE, [National Electric Vehicle Strategy](#), accessed 5 September 2023.

120 Energy Ministers, [Stand-Alone Power Systems Priority 1 Rule Amendments, Explanatory note for stakeholder consultation](#), Department of Climate Change, Energy, the Environment and Water, March 2021, accessed 15 September 2022.