



6 Retail energy markets and energy consumers

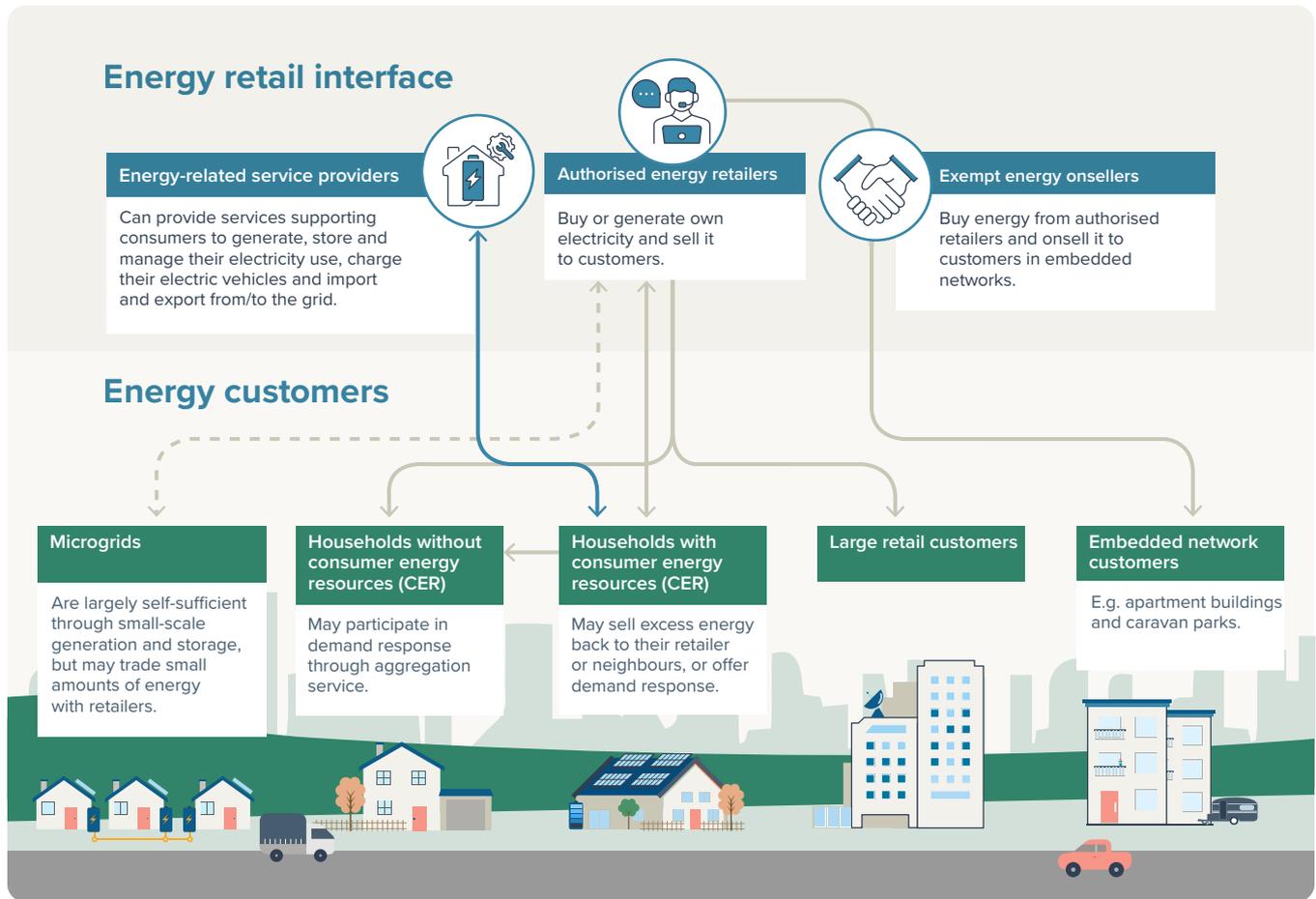
The retail markets are the final links in the energy supply chain, providing an interface for retailers and energy-related service providers to sell electricity, gas and energy services to residential and small business customers.⁵⁷³ Retailers purchase energy either through direct contracts with suppliers or from wholesale markets. The retailer then on sells the energy to its customers. In most areas of the National Electricity Market (NEM) where there is effective competition, consumers can choose their energy retailer based on the price and suitability of services offered (Figure 6.1).

The performance of the energy market is ultimately measured by the outcomes it achieves for energy consumers. This includes ensuring consumers have access to the energy they need, pay a fair amount for the energy they consume, can manage their energy consumption and make informed energy-related decisions.

Consumers have increasingly become producers of energy by installing rooftop solar. With the increase in use of home batteries and electric vehicles (EVs), they are now playing an increasing role in supplying the energy system.

⁵⁷³ Residential and small business customers (that consume 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.

Figure 6.1 Retail electricity market supply chain



This chapter focuses on the 5 jurisdictions where the AER has regulatory responsibilities – Queensland, New South Wales (NSW), South Australia, Tasmania and the Australian Capital Territory (ACT). Victoria, Western Australia and the Northern Territory apply separate regulatory arrangements and are not covered in this chapter except when data from these jurisdictions are included to provide insights into broader energy consumer issues or where it assists in comparative analysis between the NEM and other energy systems.

6.1 Snapshot

As at 31 March 2025:

- median electricity market offers for residential customers under a default market offer (DMO)⁵⁷⁴ price ranged from a 5% decrease (SA Power Networks [South Australia]) to a 4% increase (Energex [Queensland]) compared with 31 March 2024 (section 6.4.2)
- median electricity market offers for residential customers under a Victorian default offer (VDO)⁵⁷⁵ price ranged from a 5% decrease (Powercor) to a 0.3% increase (Jemena) compared with 31 March 2024 (section 6.4.2)
- median gas market offers for residential customers ranged from an 18% decrease (Australian Gas Networks [Queensland]) to a 3% increase (Australian Gas Networks [Victoria]) compared with 31 March 2024 (section 6.4.2).

Over the 12-month period to 31 March 2025:

- the number of residential energy customers on a payment plan decreased from 140,190 to 129,498 (down 8%) (section 6.8.2)
- the proportion of residential customers with energy debt⁵⁷⁶ (excluding customers on a hardship program) increased from 3.0% to 3.1% (section 6.8.1)
- the average debt per residential customer with energy debt increased from \$1,106 to \$1,415 (up 28%) (section 6.8.1)
- fewer customers received assistance through hardship programs; however, both the average level of hardship program debt and the average level of debt on entry to hardship programs increased (section 6.8.2)
- disconnection rates for non-payment remained low (around 0.06% of small electricity and/or gas customers); when disconnection did occur, the average customer debt levels at the time of disconnection were higher than in the previous year (section 6.8.3)
- 140,136 customer complaints were made to retailers, 19,940 (17%) more than were made in the previous 12 months – retailers attributed higher volumes of complaints to price increases, cost-of-living and affordability challenges, and the implementation and consolidation of their new retail customer service platforms (section 6.8.4).

After 18 months of extensive stakeholder consultation, the AER concluded that current protections for customers experiencing payment difficulty are not fit for purpose. In May 2025, the AER published the findings from its review of payment difficulty protections and identified 13 opportunities to improve the National Energy Customer Framework.⁵⁷⁷

On 19 June 2025, the Australian Energy Market Commission (AEMC) made a rule change⁵⁷⁸ seeking to increase support to people experiencing payment difficulty due to hardship. The rule change will require retailers to offer hardship customers a better offer if available or provide a financial benefit equivalent to the amount the customer would have saved if they had been on the better offer. The new protection comes into effect from 30 December 2026.⁵⁷⁹

574 The default market offer (DMO) is applied in the Energex (Queensland), Ausgrid (NSW), Endeavour Energy (NSW), Essential Energy (NSW) and SA Power Networks (South Australia) distribution zones.

575 The Victorian default offer (VDO) is applied in AusNet Services, CitiPower, Jemena, Powercor and United Energy distribution zones (Victoria).

576 Energy debt is defined as electricity and gas charges that are outstanding for 90 days or more.

577 AER, [Review of payment difficulty protections in the National Energy Customer Framework](#), Australian Energy Regulator, 15 May 2025.

578 In August 2024, the Hon. Chris Bowen MP, Minister for Climate Change and Energy submitted, on behalf of the Energy and Climate Change Ministerial Council, a rule change request to the AEMC seeking to amend the National Energy Retail Rules to incorporate the [game changer reforms](#).

579 AEMC, [Assisting hardship customers](#), Australian Energy Market Commission, 19 June 2025, accessed 14 July 2025.

6.2 Retail energy market regulation

The National Energy Customer Framework and the Energy Retail Code of Practice (Victoria) regulate the sale and supply of electricity and gas to retail customers.

The National Energy Retail Law sets out protections for residential consumers,⁵⁸⁰ operating alongside the Australian Consumer Law to protect residential and small business customers in their electricity and gas supply arrangements. Victoria does not apply the national framework but applies similar regulatory provisions.⁵⁸¹

The National Energy Retail Law and equivalent arrangements in Victoria focus on consumer protections related to the traditional retailer–customer relationship in buying electricity and gas. Protections are generally stronger for consumers supplied through an authorised retailer than consumers supplied via an embedded network⁵⁸² or entering solar power purchase agreements.⁵⁸³

The AER is responsible for regulating retail energy markets in Queensland, NSW, South Australia, Tasmania (electricity customers only) and the ACT. In Victoria, the AER only regulates electricity connections for retail customers. The AER's key responsibilities include:

- maintaining an energy price comparator website⁵⁸⁴ 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 (in Victoria the Essential Services Commission (ESC) initiates the Retailer of Last Resort process in the event of retailer failure and the AER is responsible for its administration)
- developing guidance notes for energy retail markets
- monitoring and enforcing compliance (by retailers, exempt sellers and distribution network service providers) with obligations in the National Energy 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
- monitoring the NEM and reporting on the performance of the retail markets and energy businesses, including information on trends in energy affordability and customers experiencing hardship.

Since 1 July 2019, the AER has also been responsible for determining the default market offer (DMO) electricity price, a 'safety net' protecting consumers from unjustifiably high prices, while also allowing retailers to recover costs. The DMO represents the maximum price an electricity retailer can charge standing offer customers in South East Queensland, NSW and South Australia.⁵⁸⁵ The DMO price also acts as a 'reference price' for all other market offers in each applicable distribution region. DMO prices are designed to aid consumers to compare energy plans across different providers. Jurisdictional regulators regulate electricity prices in regional Queensland, Victoria, Tasmania and the ACT.⁵⁸⁶

580 The thresholds for who meets the criteria of residential or small business customer vary between jurisdictions.

581 Changes to the Victorian framework, including recommendations adopted from the [Thwaites Independent review into the electricity and gas retail markets in Victoria \(August 2017\)](#), have resulted in greater divergence between the Victorian and national frameworks.

582 Embedded networks are smaller, localised private networks that distribute energy to sites such as apartment blocks, retirement villages, caravan parks and shopping centres. They operate alongside major distribution networks under a similar, but different, regulatory framework.

583 A solar power purchase agreement is a contract where a business provides, installs and maintains the solar panels in exchange for the consumer agreeing to buy the energy produced by the system at an agreed price for an agreed period.

584 [Energy Made Easy](#) is a free, independent government service that enables consumers to compare different energy retailers and choose the best plan for them.

585 Standing offers are intended to provide a level of protection to customers who have not engaged, or cannot engage, in the retail electricity market.

586 These include the Queensland Competition Authority (QCA) in regional Queensland, Essential Services Commission (ESC) in Victoria, Office of the Tasmanian Economic Regulator (OTTER) in Tasmania and the Independent Commission and Regulatory Commission (ICRC) in the ACT.

6.3 Energy bills

Energy bills are the main channel that retailers use to communicate with their 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 other offers available to them.

Independent comparator websites provided by the AER and the Essential Services Commission (Victoria)⁵⁸⁷ enable consumers to compare available plans in the market. Consumers can access their usage data – a key input for the comparator websites – directly from the Australian Energy Market Operator (AEMO) (Box 6.1).

Every retailer must have a standing offer and customers have the right to ask for one. However, for those customers with an existing electricity connection, only their existing retailer is obliged to supply them on these standing offer terms. Customers seeking a standing offer can make that request of their existing retailer, knowing it will be met and that they will be protected by the DMO price cap. Retailers must ensure they comply with this obligation. Standing offers are usually more expensive than a market offer. Customers may be on standing offers because they have never switched, have moved house without setting up an energy plan or because they wish to take advantage of the safety net contract terms and DMO prices.

In contrast, retailers set the terms and conditions for market offers. Discounts and other incentives may apply and market offers are typically more competitive. Market offers are priced in comparison to a reference price in DMO and VDO regions and it is not uncommon for a retailer to offer large discounts off the regulated reference price to attract customers onto market contracts. On 1 July 2025, the AEMC announced a rule change that restricts retailers from increasing prices in market retail contracts more than once every 12 months.⁵⁸⁸

The AER's retail guidelines provide instructions for how energy retailers are expected to communicate with their customers about their current offer:

- The Better Bills Guideline sets out how energy retailers must prepare and issue bills to make it easy for small customers to understand and use their bills, including to compare their plan with others on the market.
- The Benefit Change Notice Guidelines provide retailers with requirements for when they are notifying customers that a benefit under their market retail contract is ending or changing.
- The Retail Pricing Information Guidelines provide guidance to retailers on how standing and market offer prices are presented to customers and are intended to assist customers to consider and compare standing and market offers.

587 Victorian Government, [Victorian Energy Compare](#), Department of Energy, Environment and Climate Action, 18 July 2025.

588 The rule does not restrict price changes that are a direct result of a tariff reassignment by the distributor, changes to tariffs, charges or energy payments that continually vary in relation to the prevailing spot price of energy. The rule applies to any tariffs, charges or payments within the same contract that are not linked to the prevailing spot price of energy. Customers on standard retail contracts will continue to have a maximum of 2 price increases permitted per year under the Retail Law.

6.3.1 Components of an electricity bill

Retail electricity bills largely reflect the cost of producing and supplying electricity. Table 6.1 provides an overview of the key components that contribute to a typical residential electricity retail bill.

Table 6.1 Key components of a residential electricity bill

Cost component	Cost description
Wholesale	<p>Retailers generally charge their customers fixed prices for electricity despite purchasing the electricity at variable prices in the wholesale market.</p> <p>Retailers are exposed to price risk, where they may need to purchase electricity at higher prices than they have agreed to charge their customers.</p> <p>Retailers manage price risk by considering price volatility when setting retail contract prices and by entering into hedge contracts that lock in future wholesale prices for the future.⁵⁸⁹</p> <p>Some retailers also own generation assets or enter into demand response contracts to manage risk.</p> <p>Wholesale costs contribute between 33% and 41% of DMO 7 prices that apply in 2025–26.</p>
Network	<p>The AER regulates network charges, which cover the efficient costs of building and operating electricity networks and provide a return to the network service provider’s equity holders (chapter 3).</p> <p>Network costs comprise around 33% to 48% of DMO 7 prices for 2025–26.</p>
Environmental	<p>These are costs associated with environmental schemes at both national and state levels, such as:</p> <ul style="list-style-type: none"> • Large-scale Renewable Energy Target (LRET), which provides a financial incentive to encourage investment in large-scale renewable energy generation projects • Small-scale Renewable Energy Scheme (SRES), which provides incentives to households and businesses to invest in small-scale renewable energy systems • jurisdictional green schemes, such as state and territory-based energy efficiency improvements for households and businesses, rebates for customer energy resources and feed-in tariffs for rooftop solar. <p>Most environmental costs relate to complying with the LRET and SRES. These costs are incurred by retailers and passed on to customers.</p> <p>Environmental costs account for 3% to 4% of DMO 7 prices.</p>
Retail	<p>Retail costs include costs of servicing customers, such as:</p> <ul style="list-style-type: none"> • managing billing systems and bad and doubtful debt⁵⁹⁰ • handling customer enquiries • complying with regulatory obligations • replacing infrastructure such as upgrading meters (smart meters). <p>They also include customer acquisition and retention costs, such as marketing and other activities to gain or retain customers.</p> <p>Retail costs account for around 11% to 16% of DMO prices for residential customers and 6% to 9% for small business customers.</p>

⁵⁸⁹ Retailers are exposed to financial risk through spot price volatility in wholesale electricity and gas markets. Most retailers manage this financial risk by purchasing hedging contracts that limit part, or all, of the wholesale price they pay. Hedging contracts enable retailers to offer stable prices to consumers, allowing for more predictable energy bills and protecting customers from bearing the risk of potentially volatile wholesale energy prices.

⁵⁹⁰ Bad and doubtful debt are instances where customers are not expected to pay their electricity debt.

6.3.2 Components of a gas bill

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 periodically analyse the different cost components.

Table 6.2 provides an overview of the key elements that contribute to the cost of a typical residential gas retail bill.

Table 6.2 Key components of a residential gas bill

Cost component	Cost description
Wholesale	<p>Retailers purchase wholesale gas to sell to residential customers. The bulk of this is purchased through contracts, generally with terms of around 1 to 2 years, while approximately 10% to 15% is purchased through Short Term Trading Markets (Chapter 4, section 4.2). Purchasing gas through contracts minimises the need to settle gas prices through volatile wholesale gas markets.</p> <p>Wholesale costs can account for approximately 20% to 40% of a customer's bill depending on region and network expenditure.</p>
Network	<p>Network costs include the costs to operate, upgrade and maintain gas distribution networks that supply homes. Networks, or gas pipelines, are regulated as 'scheme' or 'non-scheme pipelines' (Chapter 5, Box 5.2). The AER is responsible for determining the form of regulation that applies to a gas pipeline, with a key objective to promote investment in and efficient operation of gas services in the long-term interests of consumers (Chapter 5, section 5.4).</p> <p>Distribution network costs are usually the largest component of a customer's gas bill, ranging between 23% and 54%.⁵⁹¹ However, this can vary significantly over time depending on factors such as the level of peak demand, which is a key driver of investment, and operating and maintenance costs.⁵⁹²</p>
Retail	<p>Retail costs include costs of servicing customers, such as:</p> <ul style="list-style-type: none"> • managing billing systems and debt • handling customer enquiries • complying with regulatory obligations. <p>They also include customer acquisition and retention costs, such as marketing and other activities to gain or retain customers.</p> <p>Retail costs make up the remainder of residential customers' bills, at around 20%, on average, depending on the quantum of wholesale and network costs and other factors.⁵⁹³</p>

6.4 How retail energy prices are set

Energy retailers in the NEM offer a range of market offers. Market offers are energy contracts advertised by retailers that are entered into by customers. Alongside market pricing, government agencies regulate prices for electricity standing offers. Standing offers are contracts that customers are placed on by default if they do not enter into a market offer. 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.

Governments have implemented electricity price control mechanisms for customers on standing offers. Table 6.3 provides an overview of these mechanisms and the responsible administrator.

Gas prices are deregulated and set by the market in each region.

⁵⁹¹ This information has been calculated from the indicative bill impact information submitted by gas DNSPs in their most recent access arrangement proposals.

⁵⁹² Australian Government, [Network service charges](#), Department of Climate Change, Energy, the Environment and Water, accessed 4 August 2025.

⁵⁹³ Oakley Greenwood, [Gas price trends review 2017](#), 29 January 2018.

Table 6.3 Standing offer electricity price control mechanisms

Region	Mechanism	Administrator	Approach
South East Queensland	Default market offer (DMO)	AER	Sets a cap on standing offer electricity prices for residential and small business customers and provides a reference price for comparing offers.
New South Wales			
South Australia			
Victoria	Victorian default offer (VDO)	Essential Services Commission (ESC)	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 (QCA)	Determines an annual regulated electricity price for residential and small business customers. The Queensland Government then subsidises Ergon Energy for the difference between the regulated price and the price customers are charged 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 (OTTER)	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	Independent Competition and Regulatory Commission (ICRC)	Sets a cap on electricity prices for residential and small business customers who buy electricity from the original monopoly energy provider, now authorised retailer, ActewAGL and provides a reference point for customers of other retailers to compare offers.

Source: AER, [Default market offer prices 2025–26 – Final determination](#), Australian Energy Regulator, 26 May 2025; ESC, [Victorian Default Offer](#), Essential Services Commission, accessed 1 May 2025; QCA, [Regulated electricity prices for regional Queensland 2025–26](#), Queensland Competition Authority, accessed 1 May 2025; OTTER, [2025 Standing Offer Investigation and Determination](#), Office of the Tasmanian Economic Regulator, accessed 1 May 2025; ICRC, [Price Regulation of Electricity Supply](#), Independent Competition and Regulatory Commission, accessed 1 May 2025.

6.4.1 Default market offer

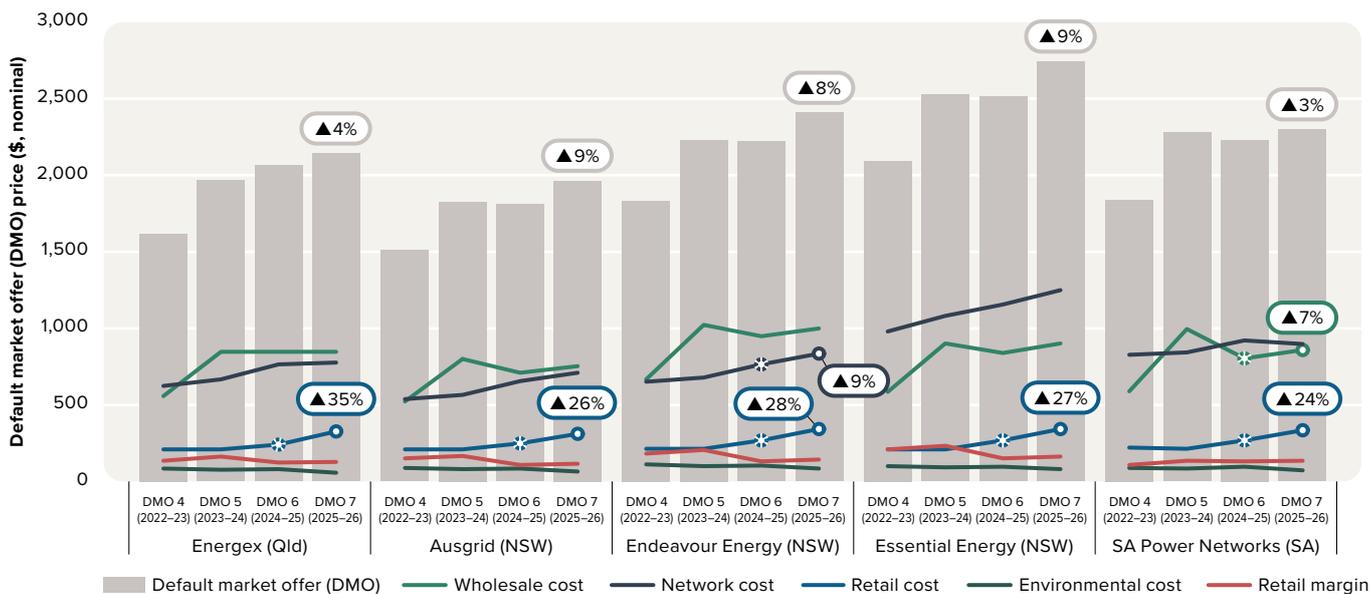
DMO prices across all regions have increased over the past 4 years. From DMO 4 (2022–23) to DMO 5 (2023–24), price increases were largely due to increases in wholesale costs. From DMO 5 (2023–24) to DMO 6 (2024–25), decreases in wholesale costs – driven by downward movements in most contract prices – were partly offset by increases in network costs.

On 26 May 2025, the AER published its DMO 7 determination, which took effect from 1 July 2025. From DMO 6 (2024–25) to DMO 7 (2025–26), prices increased across all regions – driven by:

- increases in retail costs, including bad and doubtful debts and the costs associated with the implementation of smart meters
- increases in network costs resulting from a range of factors, including higher actual inflation and interest rates causing a higher return on capital (chapter 3, section 3.5.2)
- upward movements in contract prices that retailers use to manage their exposure to wholesale spot market outcomes.

Figure 6.2 illustrates the relative contribution each cost component has had in the calculation of the DMO over the past 4 years for residential customers without controlled load.

Figure 6.2 Cost components of the default market offer for residential customers without controlled load



Note: Comparison of DMO cost components for residential customers without controlled load. Prices include GST. Values are nominal. The methodology to calculate the retail margin was adjusted in DMO 6 and is not directly comparable to prior years.

Source: AER, *Default market offer prices 2025–26*, 26 May 2025.

6.4.2 Recent activity in retail electricity prices

To analyse what customers are paying for their energy, new retailer market and standard offers are compared over time to provide insight into relative price movements. The analysis does not show what customers are paying on their existing plans.

As at 31 March 2025:

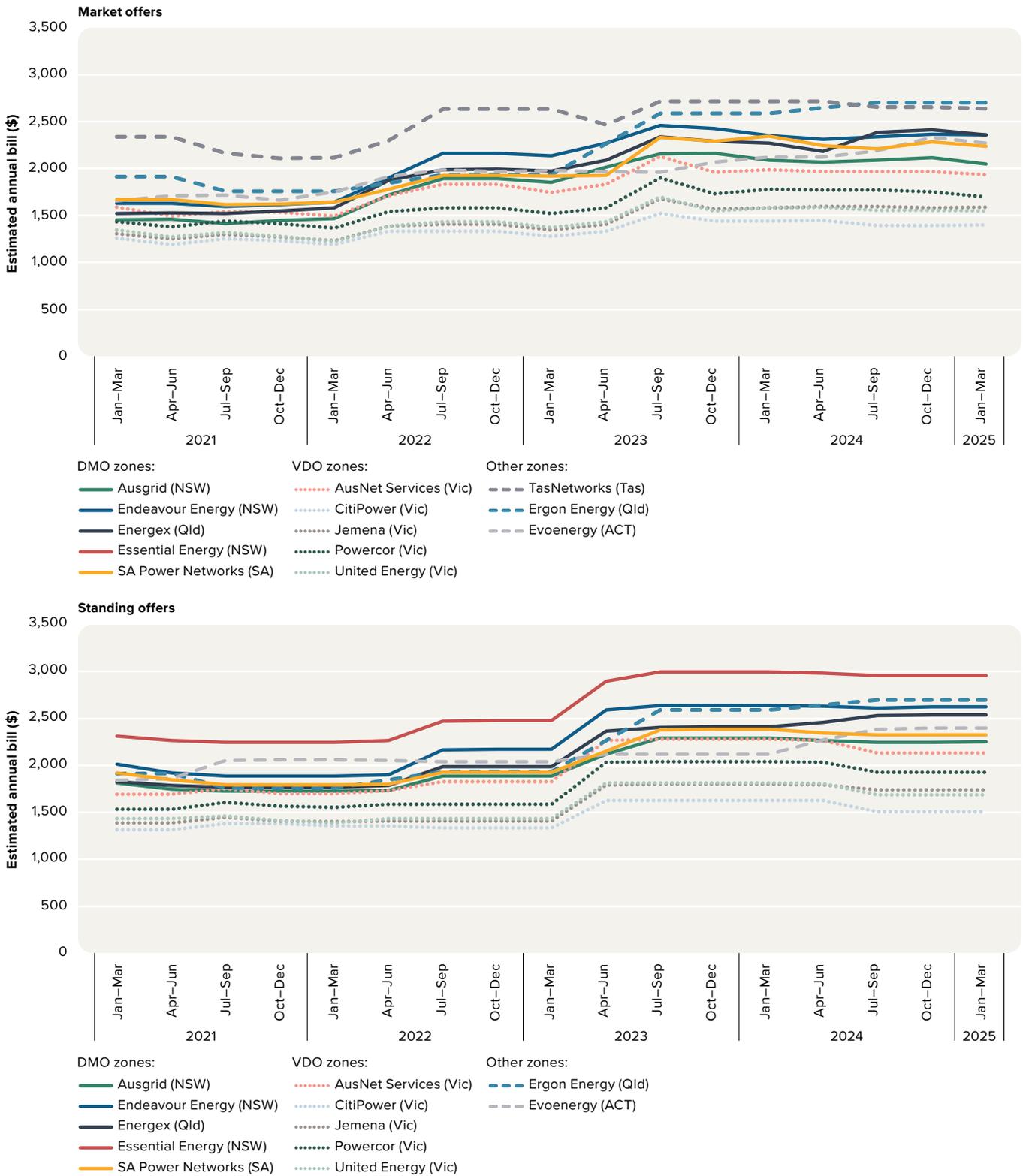
- across all regions, the estimated annual electricity bill for residential customers on median standing offers ranged between 4% and 13% higher than for those on median market offers⁵⁹⁴ (Figure 6.3)
- estimated annual electricity bills for residential customers within the Victorian default offer (VDO)⁵⁹⁵ region are historically lower compared with residential customers in default market offer (DMO)⁵⁹⁶ and other regions because electricity consumption is lower in Victoria due to a higher penetration of gas
- median market offers for residential customers under a DMO price ranged from a 5% decrease (SA Power Networks [South Australia]) to a 4% increase (Energex [Queensland]) compared with 31 March 2024 (Figure 6.3)
- median market offers for residential customers under a VDO price ranged from a 5% decrease (Powercor) to a 0.3% increase (Jemena) compared with 31 March 2024 (Figure 6.3)
- the gap between median market offers and median standing offers was narrower than at 31 March 2024.

594 There may be some customers on older market offers paying more than the standard contract. The median standard offer has not been included for the Ergon Energy distribution region as most residential customers in this region are on a regulated offer.

595 The Victorian default offer (VDO) is applied in AusNet Services, CitiPower, Jemena, Powercor and United Energy distribution zones (Victoria).

596 The default market offer (DMO) is applied in the Energex (Queensland), Ausgrid (NSW), Endeavour Energy (NSW), Essential Energy (NSW) and SA Power Networks (South Australia) distribution zones.

Figure 6.3 Estimated electricity bills for residential customers on median market and median standing offers



Note: Prices shown as at the end of the stated period – for example, Jan–Mar is price at 31 March. Default market offer (DMO) applies to electricity retailers in the Energex (Queensland), Ausgrid (NSW), Endeavour Energy (NSW), Essential Energy (NSW) and SA Power Networks (South Australia) distribution zones. Victorian default offer (VDO) applies to electricity retailers in the AusNet Services, CitiPower, Jemena, Powercor and United Energy distribution zones (Victoria). Other distribution zones includes Ergon Energy (Queensland), TasNetworks (Tasmania) and Evoenergy (ACT). Based on single rate offers for residential customers and average consumption in each distribution area. Average consumption for 2023–24 has been applied to all periods. In regions where consumption is typically higher, such as regional NSW (Essential Energy), the average estimated cost is typically higher compared to estimated costs in metropolitan networks. Some offers listed may not be available to all customers in a distribution zone. TasNetworks’ standing offer is not included. Values are nominal.

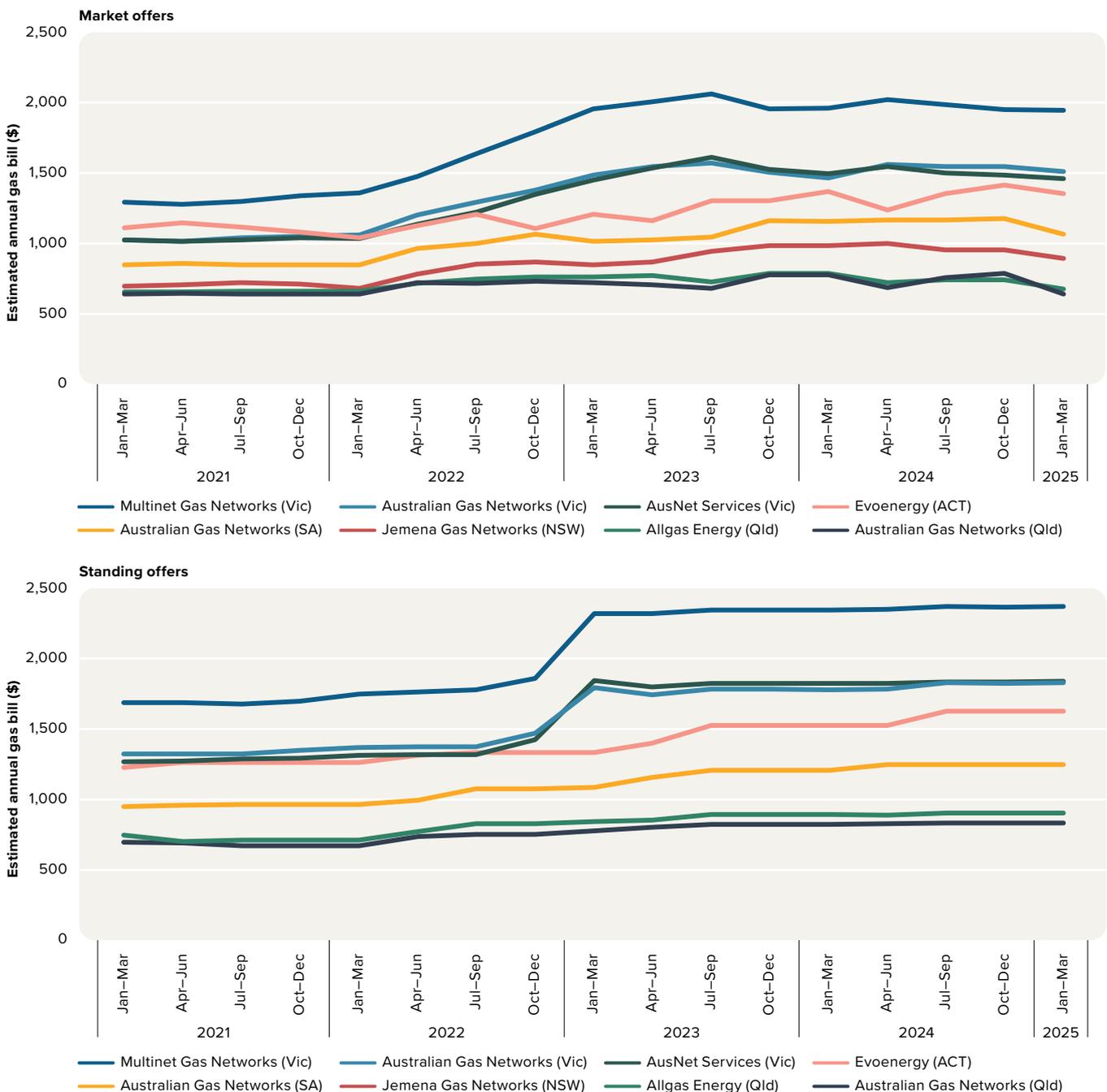
Source: AER analysis using offer data from Energy Made Easy (AER) and Victorian Energy Compare (Department of Energy, Environment and Climate Action). Consumption based on Economic benchmarking regulatory information notice (RIN) responses.

6.4.3 Recent activity in retail gas prices

At 31 March 2025:

- across all regions, the estimated annual gas bill for residential customers on median standing offers was higher than for those on median market offers, which ranged from 17% in Australian Gas Networks (South Australia) to 34% in Allgas Energy (Queensland) (Figure 6.4)
- median gas market offers for residential customers ranged from an 18% decrease (Australian Gas Networks [Queensland]) to a 3% increase (Australian Gas Networks [Victoria]) compared with 31 March 2024 (Figure 6.4)
- the gap between median market offers and median standing offers was, on average, marginally narrower compared with 31 March 2024.

Figure 6.4 Estimated gas bills for residential customers on median market and median standing offers



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

Source: AER analysis using offer data from Energy Made Easy (AER) and Victorian Energy Compare (Department of Energy, Environment and Climate Action). Consumption based on Economic benchmarking regulatory information notice (RIN) responses.

6.5 Competition in retail energy markets

Competition in retail energy markets is designed to stimulate innovation and ensure better quality, lower cost products and services for consumers. The AER’s role in 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.

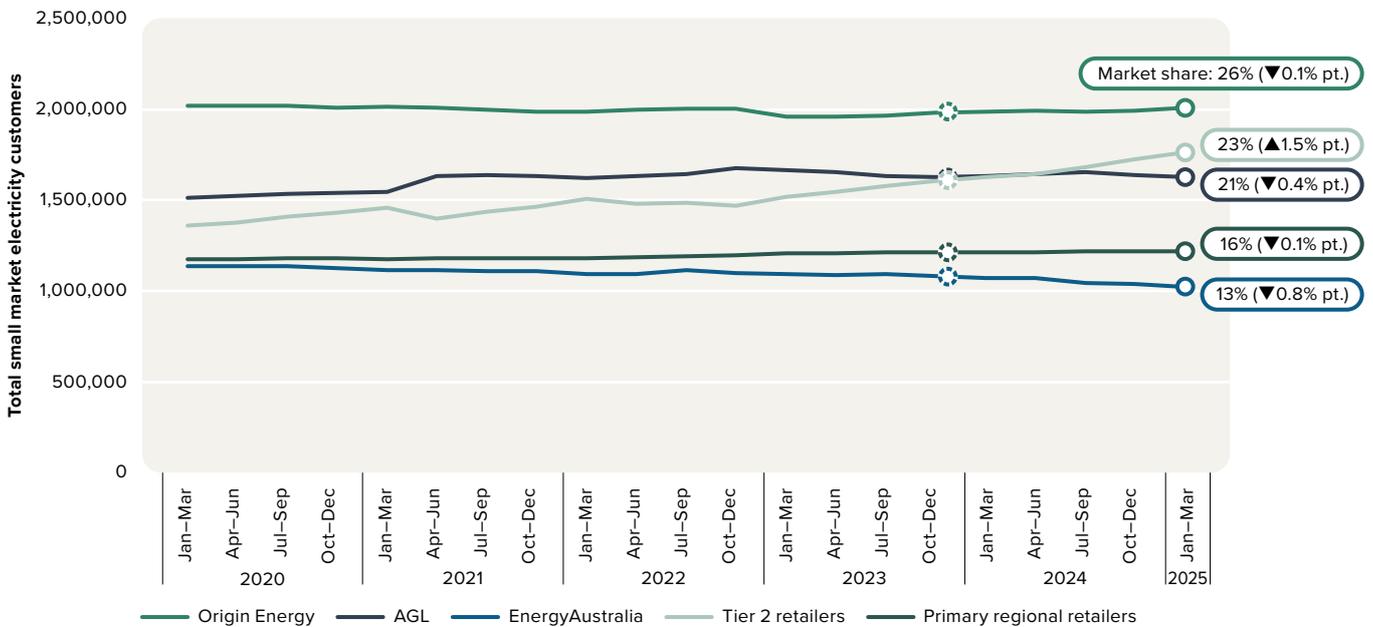
The level of market concentration and customer participation and engagement in the market provide a means of assessing the level of competition in the retail energy markets.

6.5.1 Market concentration

Origin Energy, AGL and EnergyAustralia are the largest energy retailers in the NEM. These 3 retailers collectively serve around 61% of small electricity customers (Figure 6.5) and around 77% of small gas customers (Figure 6.6).

However, the continued growth in market share of Tier 2 retailers demonstrates that Origin Energy, AGL and EnergyAustralia are subject to some competitive pressure in the retail energy market.

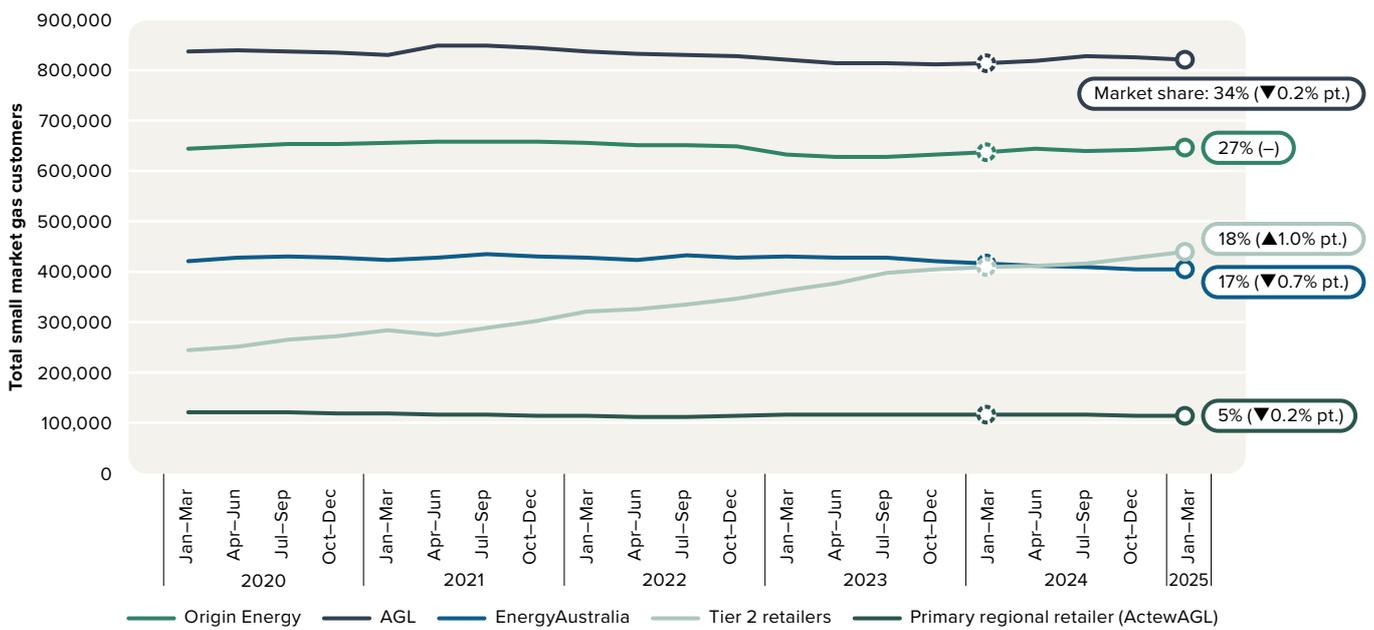
Figure 6.5 Customer numbers – small electricity customers



Note: All data as at 31 March 2025. Data includes customers in Queensland, NSW, South Australia, Tasmania and the ACT. Primary regional retailers include government-owned retailers – Ergon Energy (Queensland), Aurora Energy (Tasmania) and ActewAGL (ACT).

Source: AER, Retail markets quarterly, Q3 2024–25, June 2025.

Figure 6.6 Customer numbers – small gas customers



Note: All data as at 31 March 2025. Data includes customers in Queensland, NSW, South Australia and the ACT.
 Source: AER, *Retail markets quarterly, Q3 2024–25*, June 2025.

Over the last few years many of the new retailers authorised to sell energy into the market have sought to differentiate themselves through innovative business practices and product offerings, including:

- leasing batteries and solar, making renewable technology accessible to customers that cannot afford upfront costs of renewables
- bundling batteries and solar with energy plans, providing convenience to customers looking to purchase consumer energy resources – these offers can subsidise or amortise the upfront cost of batteries and solar through usage charges
- virtual power plant plans, where the retailer uses batteries to arbitrage energy prices (charging when electricity is cheap or negatively priced, discharging when electricity is expensive), contributing to the stabilisation of the grid – revenue from these activities can subsidise the energy costs for the consumer
- peer-to-peer community trading, where customers with excess solar generation or battery storage can trade with other members of their community.

The AER is particularly interested in new products that deliver benefit to consumers and the wider energy market and has signalled a new approach to testing and trialling new ideas in the energy market with the introduction of policy-led sandboxing.⁵⁹⁷ This is intended to help explore new ways of accelerating access to, and deployment and orchestration of, new energy resources, such as community batteries, electric vehicles and rooftop solar.

597 AER, [Innovative trials welcomed as AER introduces policy-led sandboxing approach](#), Australian Energy Regulator, 13 February 2025, accessed 21 March 2025.

6.5.2 Market participation

Competition in the retail energy market is intended to drive customer participation by offering a wider range of products and prices to meet differing customer preferences and demands. To remain on the best possible plan, customers need to regularly review, compare, renegotiate or switch market contracts to maintain the best product offering. This requires a reasonable level of ‘energy literacy’ – that is, the ability to navigate through comparative pricing websites such as Energy Made Easy⁵⁹⁸ to identify the best possible product to suit individual consumers’ requirements (Box 6.1).

In December 2024, the ACCC reported that customers who can regularly switch between market contracts can save on energy costs by accessing the best available offer and discounts designed to attract new customers.⁵⁹⁹ The ACCC found that customers on older offers were paying more than those on newer offers across all offer types. For all regions combined, and when compared with similar types of offers, customers on older offers were paying prices that were:

- 11.7% higher on flat rate offers
- 11.8% higher on time of use offers
- 6.3% higher on flat rate offers with a demand charge
- 4.3% higher on time of use offers with a demand charge.⁶⁰⁰

Box 6.1 Price comparison websites

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.

We operate an independent online price comparator [Energy Made Easy](#) 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. It also allows consumers to enter their household-specific National Meter Identifier (NMI) to identify more personalised energy offers. The website is available to consumers in jurisdictions that have implemented the National Energy Retail Law (Queensland, NSW, South Australia, Tasmania and the ACT). The Victorian Government operates a similar online price comparator, [Victorian Energy Compare](#).

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.

598 AER, [Energy Made Easy](#), Australian Energy Regulator, accessed 18 July 2025.

599 ACCC, [Inquiry into the National Electricity Market – December 2024 report](#), Australian Competition and Consumer Commission, 30 December 2024.

600 ‘Older offers’ include offers that were in the ACCC’s dataset at 1 August 2023 and ‘newer offers’ refer to offers in the ACCC’s dataset at 1 August 2024. See ACCC, [Inquiry into the National Electricity Market – December 2024 report](#), Australian Competition and Consumer Commission, 30 December 2024.

6.6 Energy market reforms to assist consumers

In December 2022, the Australian Government partnered with states and territories to launch the Energy Price Relief Plan to help mitigate both cost-of-living challenges and high price events.⁶⁰¹ Measures under the plan included temporary and ongoing coal and gas price caps, an investment scheme to unlock investment in clean dispatchable capacity to support reliability and moderate the risk of future price shocks, and an Energy Bill Relief Fund to provide targeted energy bill relief for residential and small business customers to improve energy affordability.

The Australian Government announced a \$1.8 billion, 6-month extension of the Energy Bill Relief Fund in its 2025–26 Budget. Australian households and eligible small businesses with electricity bills may receive up to \$150 in energy bill rebates from 1 July 2025 to the end of 2025.⁶⁰²

This builds on the government’s existing \$3.5 billion energy bill relief rolled out in the 2024–25 financial year. Under the 2024–25 program, households were eligible for up to \$300 of energy bill relief and eligible small businesses may have received up to \$325.

In addition, other concessions are available including:

- The Queensland Government offered a \$1,000 Cost-of-Living Rebate to households in 2024–25, along with other targeted concessions.⁶⁰³
- The NSW Government offers several rebates to help eligible households pay their electricity and gas bills.⁶⁰⁴
- The South Australian Government offers a range of energy payment supports, including the SA Concessions Energy Discount Offer and the Emergency Electricity Payment.⁶⁰⁵
- The Tasmanian Government provides a one-time Renewable Energy Dividend (RED) payment to residential electricity customers, including those on embedded networks, when Hydro Tasmania’s annual dividend exceeds \$90 million. For 2024–25, the dividend was \$60 per residential account, which is credited directly to electricity bills.⁶⁰⁶
- The ACT Government offers the Home Energy Support Scheme.⁶⁰⁷
- Northern Territory customers benefit from the territory’s Community Service Obligation.⁶⁰⁸

6.6.1 Improving the approach to consumers experiencing vulnerability – retailer obligations

Energy retailers play a central role in delivering support and assistance for consumers who are having difficulty meeting regular energy bill repayments, ranging from short-term, temporary late bill arrears to longer-term entrenched energy bill debt. Several reforms are underway by a range of stakeholders to improve how retailers engage with consumers experiencing vulnerability.

In October 2022, the AER launched its *Towards energy equity* strategy (section 6.6.2), focusing 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 also seeks to support consumers experiencing family violence, unequal protections and market complexity.

601 Australian Government, [Energy Price Relief Plan](#), Department of Climate Change, Energy, the Environment and Water, 9 December 2022, accessed 28 April 2025.

602 Australian Government, [Energy Bill Relief Fund](#), accessed 15 July 2025.

603 Queensland Government, [Cost-of-Living Action](#), accessed 15 July 2025.

604 NSW Government, [Find an energy rebate](#), NSW Climate and Energy Action, accessed 15 July 2025.

605 South Australian Government, [Energy bill concessions](#), accessed 15 July 2025.

606 Aurora Energy, [Delivering Tasmania’s Energy Savings](#), accessed 15 July 2025.

607 ACT Government, [Home Energy Support: Rebates for Homeowners](#), accessed 15 July 2025.

608 Northern Territory Government, [Cost of living support](#), accessed 15 July 2025.

Throughout 2023 and 2024, actions from the strategy were progressed and implemented. For example, the AER delivered recommendations to energy ministers for modernising the consumer protections framework for new energy services as well as for sector-wide ‘game changer’ reforms to improve outcomes for consumers experiencing vulnerability. The AER also implemented the Better Bills Guideline, collaborated with the Australian Government’s Behavioural Economics Team to evaluate the guideline’s benefits for consumers, and progressed major reviews of payment difficulty protections in the National Energy Customer Framework and the exemptions framework for embedded networks.

On 14 March 2025, energy ministers reiterated their commitment to an equitable energy transition for all Australians by agreeing to the National Energy Equity Framework.⁶⁰⁹ The framework – developed by the Australian and state and territory governments and informed by independent research – will help to ensure that energy policies do not unintentionally disadvantage any type of consumer. It calls for factors such as hardship and equity to be considered when policies and programs are being developed.

6.6.2 Towards energy equity

The AER’s *Towards energy equity* strategy seeks to address some of the enduring issues that prevent people from getting what they need from Australia’s energy system.⁶¹⁰ The strategy has 15 actions relating to 5 core objectives that the AER has undertaken to:

- 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.

Action 15 of the strategy is to advocate for sector-wide ‘game changer’ reforms.⁶¹¹ This action recognises the potential in the energy sector to innovate and better allocate resources to not only provide a safer, healthier experience for consumers but also potentially save money and resources throughout the system. The game changer reforms aim to better balance cost and risk within the energy sector so that consumers experiencing vulnerability are identified early and get the support they need to improve outcomes.

One of the proposed game changer reforms has already been progressed through a recent decision by the Australian Energy Market Commission (AEMC) in response to a rule change request from the Energy and Climate Change Ministerial Council. On 19 June 2025, the AEMC made a rule change⁶¹² that seeks to increase support for people experiencing payment difficulty due to hardship by requiring retailers to offer hardship customers a better offer if available or provide a financial benefit equivalent to the amount the customer would have saved if they had been on the better offer. The new protection comes into effect from 30 December 2026.⁶¹³ To monitor the change, the AER is required to report on new hardship indicators from the 2027–28 retail market performance reporting period. The Essential Services Commission (Victoria) is also considering a similar protection for Victorian customers.

Other game changer reforms are being considered as part of the Energy and Climate Change Ministerial Council’s Better Energy Customer Experiences reform program, which is being led by the Australian Government Department of Climate Change, Energy, the Environment and Water. The Better Energy Customer Experiences reform program is also considering the recommendations from the AER’s Review of payment difficulty protections in the National Energy Customer Framework, which progressed actions 8, 9 and 10 of the *Towards energy equity* strategy.

609 Australian Government, [National Energy Equity Framework](#), Department of Climate Change, Energy, the Environment and Water, 10 June 2025, accessed 15 July 2025.

610 AER, [Towards energy equity - a strategy for an inclusive energy market](#), Australian Energy Regulator, 20 October 2022.

611 AER, [Game changer reforms](#), Australian Energy Regulator, accessed 17 June 2025.

612 In August 2024 the Hon Chris Bowen MP, Minister for Climate Change and Energy, submitted, on behalf of the Energy and Climate Change Ministerial Council, a rule change request to the AEMC seeking to amend the National Energy Retail Rules to incorporate the [game changer reforms](#).

613 AEMC, [Assisting hardship customers](#), Australian Energy Market Commission, 19 June 2025, accessed 14 July 2025.

The findings from this review were published on 15 May 2025. The AER identified 13 opportunities to improve the framework and deliver better customer experiences and outcomes, such as introducing minimum standards for assistance, improving retailer engagement with customers experiencing payment difficulty and strengthening minimum disconnection protections to ensure disconnection is only used as a last resort – including by increasing the minimum amount that must be outstanding before a customer can be disconnected for non-payment of a bill.

Box 6.2 Safety and support for consumers affected by family violence

Recent work commissioned by the Essential Services Commission (Victoria) has identified significant room for improvement in protecting and supporting energy customers affected by family violence and financial abuse.⁶¹⁴ We are committed to working with energy sector participants to prevent essential services and energy debt from being weaponised.

In May 2025, we released our *Strategy to support a safer energy market for customers affected by family violence*⁶¹⁵ alongside an open letter to the energy sector⁶¹⁶ calling on the industry to make its services safer for customers affected by family violence. Our strategy established our 3 key priorities:

1. Building organisational awareness and capability within the AER.
2. Supporting a regulatory framework that enables safety by design.
3. Encouraging regulated entities to prioritise safety in their businesses.

These priorities reflect what we have learned through our work in this space so far and builds on our progress, including our guidance on expectations⁶¹⁷ in relation to family violence protections in the National Energy Retail Rules⁶¹⁸ and on better practices for identifying and engaging with customers experiencing vulnerability, including customers affected by family violence.⁶¹⁹

In addition to the above, we have proposed to introduce a condition that exempt sellers must provide relevant protections to embedded network customers affected by family violence. On 17 March 2025, we published a draft decision to introduce new protections for customers of exempt sellers, including improved pricing visibility and an obligation for exempt sellers to develop, implement and maintain family violence policies.⁶²⁰ Due to an extension to our consultation, we now anticipate the final instrument to be released on or before 29 August 2025.

6.6.3 Consumer protections for future energy services

On 23 December 2023, the AER provided advice on consumer protections for future energy services for energy ministers' consideration.⁶²¹ The advice presented the case for reviewing the National Energy Customer Framework to ensure it can continue to protect consumers in an evolving energy market, supporting the energy transition.

New energy services such as virtual power plants, aggregation services and home energy management services are being increasingly intertwined with the essential services consumers rely on. New energy services will also become increasingly important in supporting the grid through the energy transition and driving down emissions, and have the potential to reduce the costs of supplying electricity.

The AER considers that, unless there is some regulatory reform to enhance protections, there is the risk of harm to consumers. Effective consumer protections would also support the wider uptake of these new services, driving further innovation and realising the significant benefits that they bring to the transition.⁶²²

614 C Fitzpatrick, *Designed to disrupt: Safety by design for essential services*, Flequity Ventures, 19 May 2025.

615 AER, *Strategy to support a safer energy market for customers affected by family violence*, Australian Energy Regulator, 22 May 2025.

616 AER, *Open letter to the energy sector in response to Designed to Disrupt discussion paper*, Australian Energy Regulator, 22 May 2025.

617 AER, *Family Violence Rules: Guidance for Energy Retailers*, Australian Energy Regulator, 12 February 2025.

618 AEMC, *Protecting customers affected by family violence*, Australian Energy Market Commission, 15 September 2022.

619 AER, *Customer engagement toolkit*, Australian Energy Regulator, accessed 3 June 2025.

620 AER, *Review of the AER exemptions framework for embedded networks – Draft decision*, Australian Energy Regulator, 17 March 2025.

621 AER, *Final advice to Energy Ministers*, Australian Energy Regulator, 23 November 2023.

622 AER, *Final advice to Energy Ministers*, Australian Energy Regulator, 23 November 2023.

Among other reforms, the AER recommended introducing principles-based regulation for new energy services, with a strong focus on consumer outcomes. The AER considers that an overarching consumer duty would provide a degree of flexibility for providers to account for the uncertainty over how energy offerings will develop through the energy transition. The overarching duty would complement existing general consumer protections offered under the Australian Consumer Law.

In response to consultation on the Better Energy Customer Experiences reform program, the AER continues to advocate for progress on these and other recommendations arising from comprehensive review processes undertaken by the AER, including the Review of consumer protections for future energy services, the Review of the exemptions framework for embedded networks, the Review of payment difficulty protections in the National Energy Customer Framework and the Game changer initiative.⁶²³

6.7 Energy affordability

Energy affordability is impacted by several factors, including a customer's energy needs, available tariffs, income, living costs and the ability to participate effectively in the energy market. Energy bills can be a significant burden for households even in times of relatively low energy prices. Additional strains will be felt by consumers as the broader cost of living in Australia continues to rise.⁶²⁴

In October 2024, the AER commissioned consumer research to explore:

- which consumers are experiencing financial stress
- how consumers prioritise the payment of energy bills against other payments
- who is using non-traditional lending products
- how extensively traditional and non-traditional lending products are being used to pay energy bills – this includes credit cards, buy now pay later, wage advance loans, personal loans and payday loans
- how much consumers know about how they could reduce their energy bills.

Key findings from the research included:

- 37% of energy customers surveyed were experiencing financial stress
- financially stressed energy customers were significantly more likely to have used a non-traditional lending product to pay energy and water bills in the previous 6 months
- more than 33% of financially stressed customers were unable to pay an energy or water bill on time in the previous 12 months
- among those who had been unable to pay their energy bills on time in the previous 12 months, 45% cut essential spending, 40% cut optional spending and 32% contacted their energy retailer to ask for assistance
- almost 40% of energy customers were currently or had previously been on a retailer instalment plan to smooth their energy bills
- 44% of financially stressed energy customers were or had been on a debt repayment plan with their retailer – more than 33% of these customers had never received any extra support through their energy retailer's assistance program
- financially stressed energy customers were younger, had less education, lived more regionally and had lower income.

623 Australian Government, [Better Energy Customer Experiences](#), Department of Climate Change, Energy, the Environment and Water, 14 March 2025.

624 Over the 12 months to March 2025, the Living Cost Indexes (LCIs) – which measures the price change of goods and services and its effect on living expenses of selected household types – increased by 2.4% and 3.5%. See ABS, [Selected Living Cost Indexes, Australia](#), Australian Bureau of Statistics, March 2025, accessed 17 June 2025.

6.7.1 Energy usage

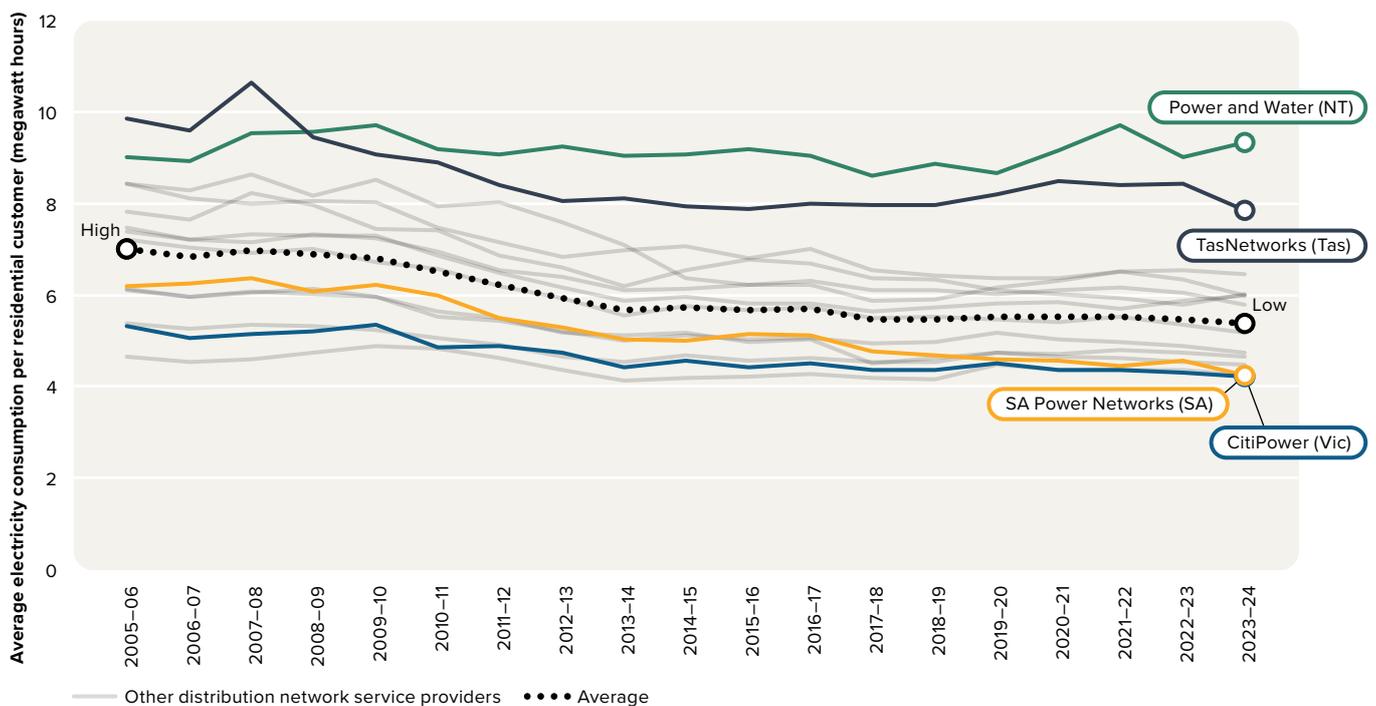
Usage charges represent the largest component of energy bills for most households.⁶²⁵ Therefore, a customer’s energy usage significantly impacts energy affordability.

Several factors can impact usage costs, including household size, how energy efficient the house is, appliance quality, heating and cooling needs, and lifestyle. Some consumers use both electricity and gas, and others only use electricity.

Key drivers of greater electricity and gas use are climate (with greater heating requirements in some jurisdictions) and the penetration of gas as an alternative fuel. Residential customers in Tasmania use the most electricity (per customer) of any jurisdiction in the NEM.⁶²⁶ However, the above average electricity usage is offset by relatively few Tasmanian households using gas. Most households in Victoria have both electricity and gas connections, resulting in below average household electricity consumption (per customer) and above average household gas consumption (per customer).

Over the past 10 years, the amount of electricity the average residential consumer has sourced from the grid has decreased, reaching a new low in 2023–24. The overall decline in energy consumption from the grid can be attributed to several factors, including rooftop solar replacing electricity previously sourced from the grid and housing and appliances becoming more efficient (Figure 6.7).

Figure 6.7 Average electricity consumption per residential distribution network customer

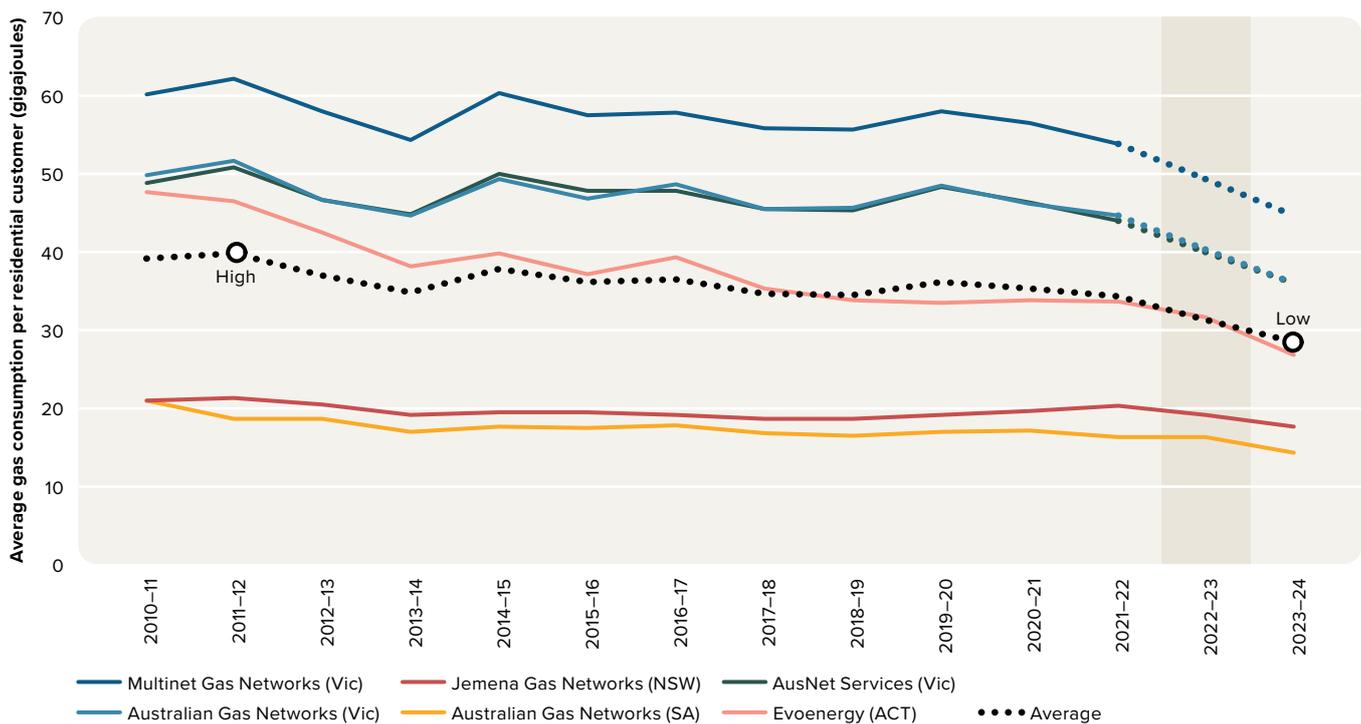


Source: Economic benchmarking regulatory information notice (RIN) responses.

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

626 The Northern Territory has 3 separate distribution networks – the Darwin–Katherine, Alice Springs and Tennant Creek systems – all owned by Power and Water. The 3 networks are classified as a single distribution network for regulatory purposes but do not connect to each other or the NEM.

Figure 6.8 Average gas consumption per residential distribution pipeline customer⁶²⁷



Source: Annual regulatory information notice (RIN) responses.

6.7.2 Affordability of median market offers

Energy affordability in 2024–25 varied across customers and jurisdictions. This was largely due to differences in government support provided in different regions and changes in median market offers from retailers.

Rebates and concessions provided by governments (section 6.6) partially shielded eligible low-income households from electricity price rises. While the Australian, and state and territory governments have provided energy bill relief since 2023, the greatest impacts in 2024–25 were observed in Queensland and Tasmania, where low-income electricity customers benefited from the Queensland Government’s \$1,000 Cost-of-Living Rebate and the Tasmanian Government’s one-time Renewable Energy Dividend (RED) payment.

Retail energy prices paid by consumers differ according to their jurisdiction. While retail prices in the ACT, Tasmania and regional Queensland are regulated by responsible jurisdictional administrators, the level of competition can impact retail prices paid in other NECF regions. Other price factors include 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.

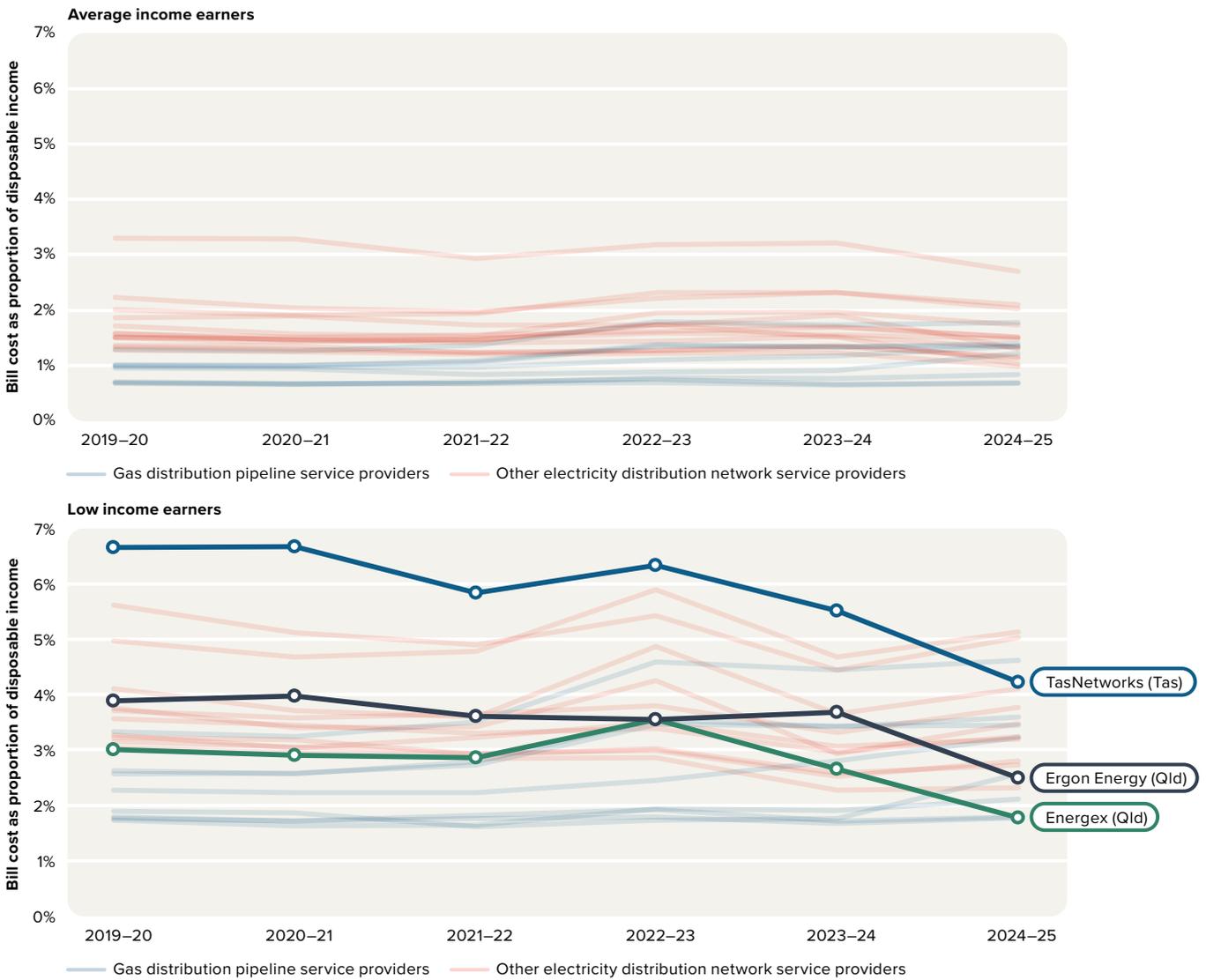
As at 31 March 2025, after eligible concessions and rebates were applied:

- average-income households were spending 1.0% to 2.7% of their income on electricity, which is a decrease across most jurisdictions since 2023–24
- expenditure for gas was stable and ranged between 0.7% and 1.8% of income
- low-income household electricity spending increased from 2023–24 and ranged between 1.8% and 5.1%
- household expenditure for gas also increased, ranging from 1.8% to 4.6% (Figure 6.9).

Gas bills as a proportion of income are higher for Victorian customers because gas consumption is higher in Victoria than elsewhere (Figure 6.8). As such, increases in gas prices (due to both local supply and international prices) have a greater impact on Victorian customers relative to their income because it makes up more of their overall energy usage.

627 2022–23 data not included for Victorian pipeline service providers.

Figure 6.9 Affordability of median market offers



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 (Department of Energy, Environment and Climate Action). Consumption estimates based on Economic benchmarking regulatory information notice (RIN). Income data are unpublished Australian Bureau of Statistics (ABS) estimates of household disposable income.

6.7.3 Energy market evolution and the ‘equity gap’

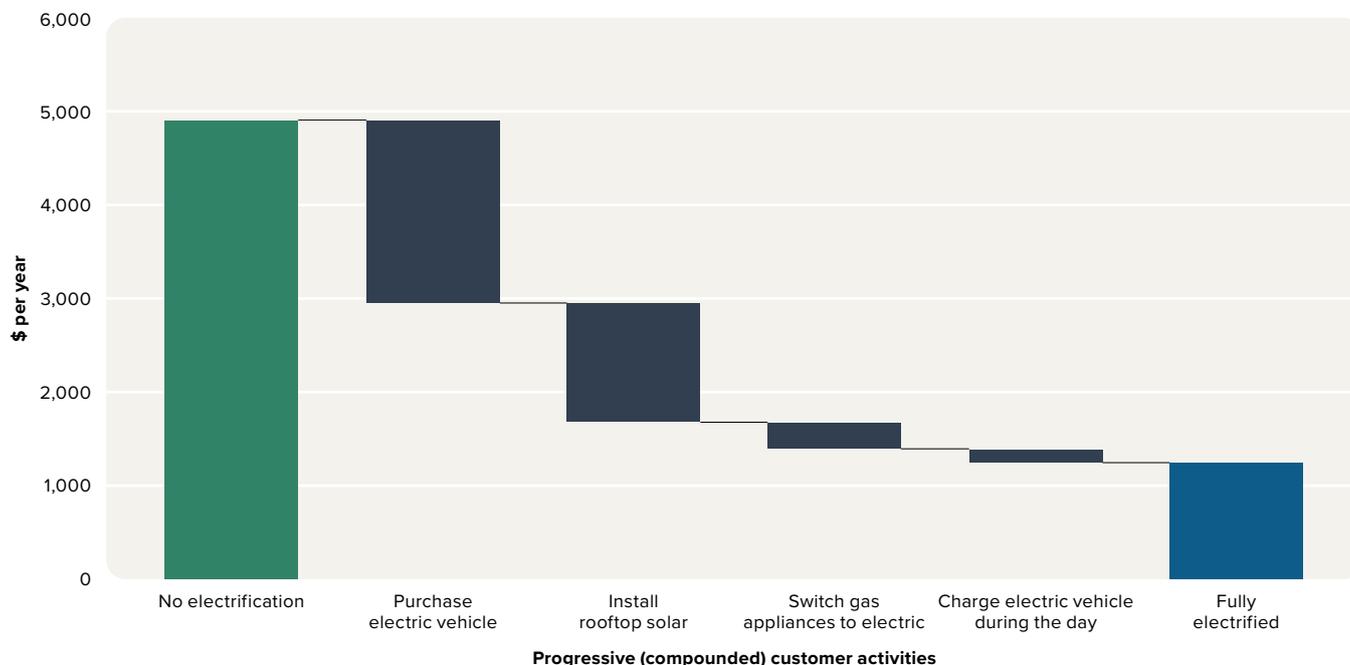
Indicators of average energy use – such as those shown in section 6.7.1 – are likely obscuring a widening gap between households that have the capacity to adopt new technology or modify energy use, and those that do not. The main drivers of the reduction in energy use – rooftop solar and energy efficient housing – are not equally accessible to all consumers. This could be due to the up-front cost or renting a property without rooftop solar or batteries.⁶²⁸

Consumers that have the capacity to adopt new technology or modify energy use have likely been experiencing a substantial reduction in electricity sourced from the grid, while for other households the amount of electricity sourced from the grid has likely remained relatively consistent over time.

628 Cong et al., *Unveiling hidden energy poverty using the energy equity gap*, May 2022, accessed 13 August 2025.

Traditionally, energy consumption, and therefore cost, was managed at a household level by reducing the usage of appliances or by energy efficiency measures, such as installing insulation or double glazing. But as the energy market evolves, household energy consumption and costs can vary significantly based on the extent to which some households can invest in consumer energy resources. This is sometimes referred to as the energy ‘equity divide or gap’.⁶²⁹

Figure 6.10 Typical energy cost savings if a household electrified today



Note: All data shown in June 2025 dollars. Data are estimates based on the AEMC’s *Residential electricity price trend 2024* report. Reflects a household with annual electricity consumption of 3,900 kilowatt hours.

Source: AEMC, *Residential electricity price trend 2024* report, 28 November 2024, accessed 16 July 2025, p. 19.

Distribution network service providers have introduced reforms such as ‘solar soak’ periods – where consumers have access to low rates in the middle of the day.⁶³⁰ When ‘solar soak’ periods are passed on to customers in retail tariff offers, both customers with and without solar can access the benefits of plentiful rooftop solar generation during the day if they can shift energy consumption into the middle of the day (chapter 3, section 3.8.2).

6.7.4 Potential benefits of consumer energy resources

Consumer energy resources such as rooftop solar, home batteries and electric vehicles have the potential to lower energy costs and increase energy self-reliance for consumers equipped with those assets (Figure 6.10).

Modelling conducted by the AEMC for its *Residential electricity price trends (2024)* report showed a household could reduce its energy expenditure by more than 70% – from about \$5,000 to under \$1,500 a year – by taking advantage of these 4 electrification actions (Figure 6.10):

- purchasing an electric vehicle
- installing rooftop solar
- switching gas appliances to electric
- charging electric vehicles during off peak periods during the day instead of during the evening peak periods.

629 Energy Consumers Australia, [Understanding the Energy Divide](#), December 2023, accessed 13 August 2025.

630 Clean Energy Council, [Home Battery Saver Program](#), accessed 14 August 2025.

The broader system and economic benefits for all consumers will depend on the extent to which consumer energy resources can be orchestrated. Orchestration occurs when the operation of consumer energy resources is coordinated to achieve certain outcomes, such as a reliable electricity supply, enhanced grid stability and lower costs for all consumers. AEMO forecasts that if consumer energy resources are not effectively orchestrated, additional investment of around \$4.1 billion in grid-scale storage will be required by 2049–50.⁶³¹ Avoiding these costs, which would be passed on to all consumers, will help ensure those unable to install or use consumer energy resources can share in the benefit of more reliable and lower cost energy.

Rooftop solar generation

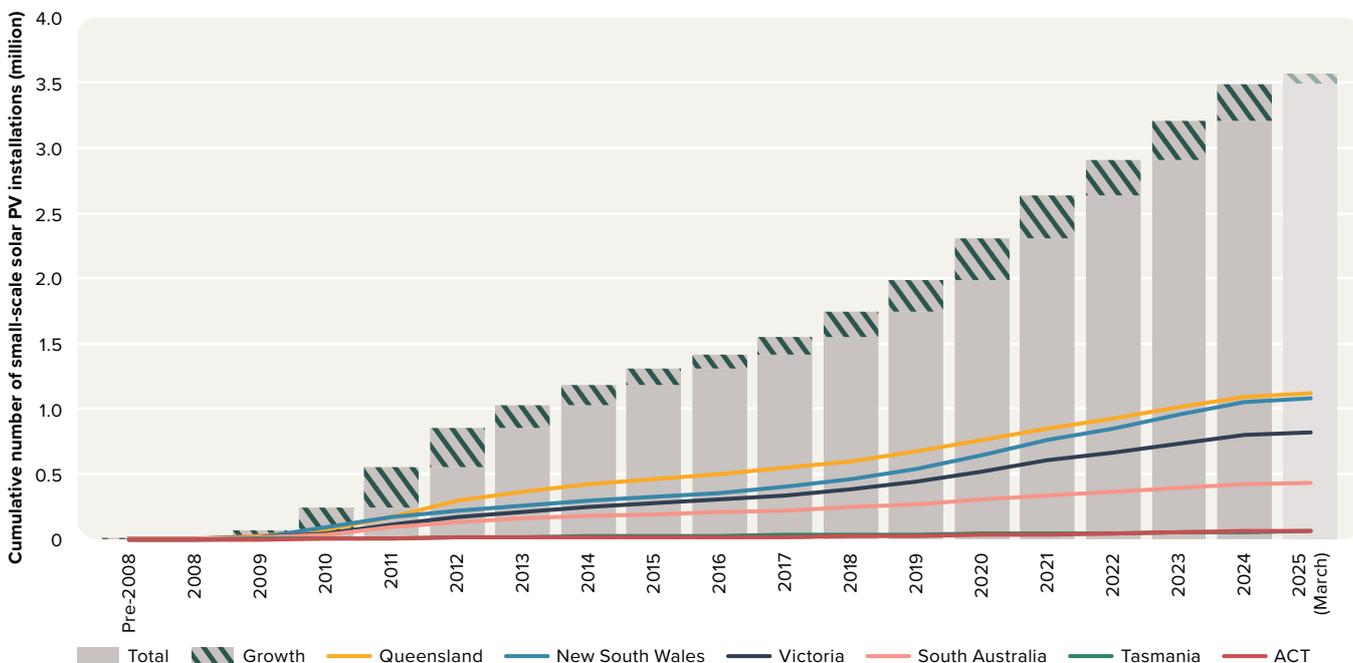
Australia is the largest per capita user of rooftop solar in the world.⁶³² Backed by Australian and state and territory government incentives, households and businesses have continued to install large volumes of rooftop solar capacity every year since 2015. Ongoing subsidies combined with falling costs of solar PV systems have helped sustain the growth in new installations.

As at 31 March 2025, more than 3.5 million small-scale solar PV systems had been installed across the NEM (Figure 6.11), 9% more than in the previous year, with a combined capacity of around 23 gigawatts (chapter 3, Figure 3.23).

Customers with solar panels may save on their electricity bills in 2 ways. First, the electricity generated by solar is free and used by the household, so they can buy less electricity from the grid. Second, customers exporting surplus electricity back into the grid receive a feed-in tariff, and other consumers have access to the surplus electricity that is exported.

Electricity generated from consumers' rooftop solar systems add more value to the customer and grid when paired with a household battery. This enables surplus electricity from the rooftop system to be stored in the battery for household use during the evening peak, when costs are generally highest. At a grid level, surplus electricity stored in home batteries can be exported when it is needed, offsetting the need for more expensive, dispatchable generation such as gas or hydro.

Figure 6.11 Small-scale solar PV installations across the NEM



Note: Small-scale generation units have a capacity of no more than 100 kilowatts and a total annual electricity output of less than 250 megawatt hours.
Source: Clean Energy Regulator, Postcode data for small-scale installations, data as at 16 June 2025.

631 Modelling for AEMO's 2024 ISP did not include the costs of distribution network investments. AEMO, [2024 Integrated System Plan](#), Australian Energy Market Operator, 26 June 2024.

632 Clean Energy Regulator, [Rooftop solar](#), 30 June 2025, accessed 21 July 2025.

Batteries

Batteries are a relatively new technology, and the high upfront costs to install home batteries has been a barrier to uptake. However, since 2013 global battery prices have fallen by 86%, and the expected payback period on the upfront cost of purchasing a battery has dropped to an average of 8.3 years in Australia (as at 2024) compared with 10 years in 2022 and 19 years in 2016.⁶³³ Falling prices and government rebates could increase the rate of home battery uptake.

The Australian Government is delivering a \$200 million grant program in recognition of the multiple benefits community-scale batteries can unlock.⁶³⁴ As part of the first round of funding, the Australian Renewable Energy Agency (ARENA) has contributed \$124.7 million to deploy 318 community batteries across all states and territories. A second funding round launched in March 2025, making a further \$46.3 million available.⁶³⁵

Community-scale batteries allow consumers to send excess electricity generated from their rooftop solar to a local large-scale battery system for storage and later use. This stored electricity can be used during peak times or as an alternative to purchasing their own home battery or electric vehicle. With typical storage capacities of around 100 kilowatts up to 5 megawatts, a single community-scale battery system could serve up to several hundred nearby homes and small businesses.

Across the NEM, the most common form of community-scale batteries are ‘in-front-of-the-meter’ systems connected to the main grid. These batteries may be owned by the local distribution network service provider, local council, community group, retailer or other third party. However, there are also ‘behind-the-meter’ systems, which are generally co-located with other consumer energy resources. These can be owned by individual customers, businesses or third-party service providers.

Several state and territory programs and trials are also underway.⁶³⁶ Retailers are increasingly participating in community-scale battery schemes as the asset owner or in partnership with a distribution network service provider, and several retailers have been conditionally approved to receive Australian Government funding to develop and install community-scale batteries across NEM regions.⁶³⁷

South Australia has the largest volume of installed DER capacity per customer, followed by Queensland, the ACT and then Victoria. Capacity is lower in Tasmania and NSW (Figure 6.12). In each state, solar is the biggest source of capacity per customer.

633 Climate Council, [Battery Boom: Supercharging Australia's Renewable Rollout](#), 10 June 2025, accessed 18 July 2025.

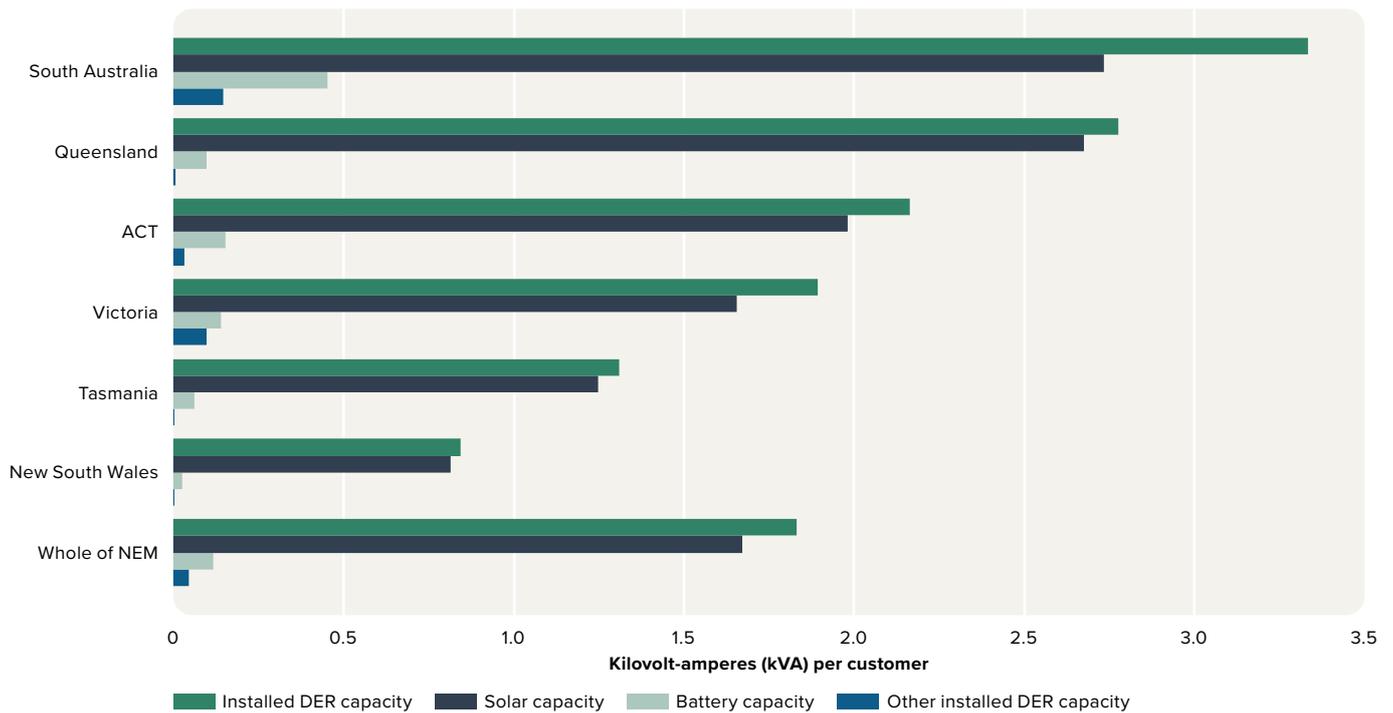
634 Australian Government, [Community Batteries for Household Solar program](#), Department of Climate Change, Energy, the Environment and Water, accessed 12 September 2024.

635 ARENA, [Community batteries, community benefits and the clean energy transition](#), Australian Renewable Energy Agency, accessed 1 July 2025.

636 For example, the Victorian Government's [100 Neighborhood batteries program](#) and the South Australian Government's [emPowering SA program](#), accessed 11 September 2024.

637 Australian Government, [Community Batteries for Household Solar program](#), Department of Climate Change, Energy, the Environment and Water, accessed 12 September 2024.

Figure 6.12 Registered distributed energy resources (DER) capacity per customer, by NEM region



Note: AEMO's distributed energy resources register includes consumer energy resources such as rooftop solar and home batteries as well as other distributed energy resources (DER) capacity. Other DER capacity can include other small-scale renewable generation systems as well as diesel/petrol generators and electric vehicles with vehicle-to-grid or vehicle-to-home technology.

Source: AEMO, Distributed energy resource register (DERR), March 2025; Economic benchmarking regulatory information notice (RIN) responses.

On 1 July 2025, the Australian Government introduced a \$2.3 billion Cheaper Home Batteries Program to increase the uptake of home batteries.⁶³⁸ The program provides an around 30% discount off the upfront cost of installing eligible small-scale battery systems for households, businesses and community facilities. The Australian Government will fully fund the discount for batteries by purchasing small-scale technology certificates. This means no costs will be passed on to householders through energy retailers.

While this is likely to accelerate uptake of home batteries, as evidenced by similar schemes in other jurisdictions,⁶³⁹ the extent of broader system and economic benefits for all consumers will depend on the degree to which home batteries and other consumer energy resources can be orchestrated.⁶⁴⁰

A single community-scale battery system could serve up to several hundred nearby homes and small businesses.

638 Australian Government, [Cheaper Home Batteries Program](#), Department of Climate Change, Energy, the Environment and Water, accessed 6 June 2025.

639 See Clean Energy Council, [Home Battery Saver Program](#), accessed 6 June 2025, p. 8.

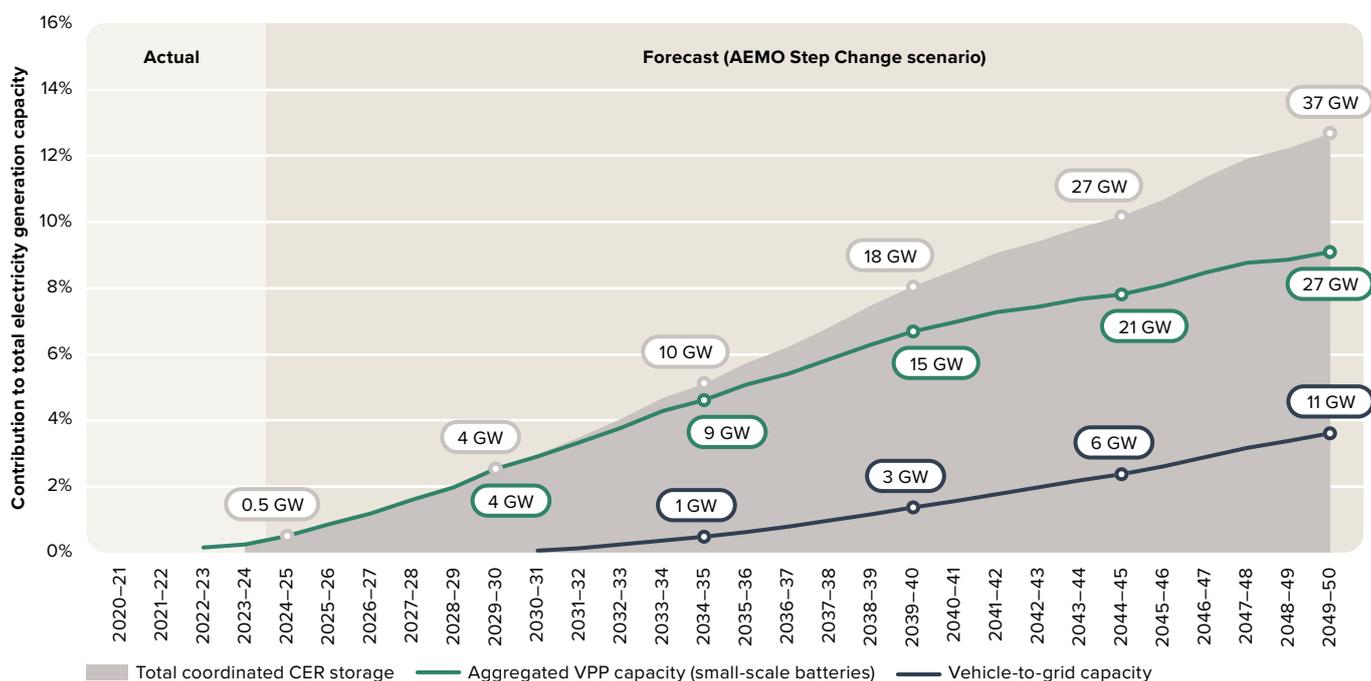
640 Orchestration is when the operation of consumer energy resources is coordinated to achieve certain outcomes, such as a reliable electricity supply, enhanced grid stability and lower costs for all consumers. The ability to effectively orchestrate consumer energy resources is contingent on multiple factors, in particular social licence, upgrades to distribution networks and operations and policy settings. See AEMO, [2024 Integrated System Plan](#), Australian Energy Market Operator, 26 June 2024.

Electric vehicles as energy storage

Electric vehicle batteries have the potential to act as small-scale storage by charging from a consumer's rooftop solar or from the grid when renewable generation output is high, then providing electricity back to the consumer's home or to other consumers via the grid when it is needed.⁶⁴¹ Referred to as 'bidirectional charging' or 'vehicle-to-grid' and 'vehicle-to-home' technology, enabling the use of electric vehicles as energy storage is a priority reform area of the National Consumer Energy Resources Roadmap⁶⁴² and work is progressing to develop technical standards and other regulatory reforms.

AEMO forecasts that by 2049–50, bidirectional charging could provide 11 gigawatts of a total 37 gigawatts of coordinated consumer energy resources storage capacity in the NEM (Figure 6.13). A well-timed and coordinated approach to electric vehicle charging and discharging has the potential to support grid stability and boost self-consumption of solar, with minimal impacts to consumers.

Figure 6.13 AEMO's modelled coordinated consumer energy resources contribution to electricity generation capacity



Note: GW: gigawatts.

Source: AEMO, 2024 Integrated System Plan, June 2024.

641 More information about progress towards vehicle-to-grid and vehicle-to-home is available in ARENA, [National Roadmap for Bidirectional EV Charging](#), Australian Renewable Energy Agency, 12 February 2025.

642 Australian Government, [National Consumer Energy Resources Roadmap - Powering Decarbonised Homes and Communities](#), Department of Climate Change, Energy, the Environment and Water, 19 July 2024, accessed 6 June 2025.

6.8 Retailer assistance to customers

The National Energy Customer Framework (NECF)⁶⁴³ is a suite of legal instruments that regulate the sale and supply of electricity and gas to retail customers, including how retailers are obligated to support customers experiencing payment difficulties.

Generally, the first stage of support is a payment plan which allows customers to repay their energy debt in affordable, regular instalments. Payment plan support should be afforded to all residential customers and are among the minimum forms of assistance that retailers must offer customers.

The NECF also contains the AER's Customer Hardship Policy Guideline to assist customers that are challenged with energy debt or are experiencing financial hardship. Key components of these guidelines include the following requirements for retailers:

- Identification of hardship – retailers must have clear processes to identify customers who may be experiencing hardship.
- Early intervention – retailers must respond promptly to customers who are experiencing hardship.
- Flexible payment arrangements – retailers must offer payment plans tailored to individual customer circumstances.
- Hardship programs – which can encompass emergency relief, financial counselling and assistance with improving energy efficiency to reduce bills.
- Disconnection protections – customers participating in hardship programs cannot be disconnected.

However, many households continue to struggle with energy debt and are not receiving payment support from their retailer via payment plans or hardship programs. Additionally, over the past few years, broader economic conditions and cost-of-living issues have challenged both energy consumers and retail energy market participants. This has resulted in more customers accumulating energy debt.

In response, governments have provided additional support with rebates and concessions, which has assisted energy affordability across most customers.

The AER monitors data on debt levels (section 6.8.1) as well as payment plans (section 6.8.2) and the number of customers identified to be in financial hardship (section 6.8.2).

6.8.1 Energy bill debt

Energy debt is defined as electricity and gas charges that are outstanding for 90 days or more.

The number of customers repaying debt excludes customers on hardship programs (see section 6.8.2) and non-active debts that retailers may still have on record.

Typically, electricity and gas customers have access to an unlimited supply of each energy type and are charged retrospectively. If energy bills are not paid in full, debt can remain on a customer's account and can accumulate over time.

The proportion of customers in energy debt and the average level of debt provide an insight into:

- the extent to which customers are experiencing difficulty paying their energy bills
- whether customers in certain jurisdictions are more susceptible to experiencing difficulty paying their energy bills
- whether retailers are effectively assisting their customers to meet their energy debt repayments.

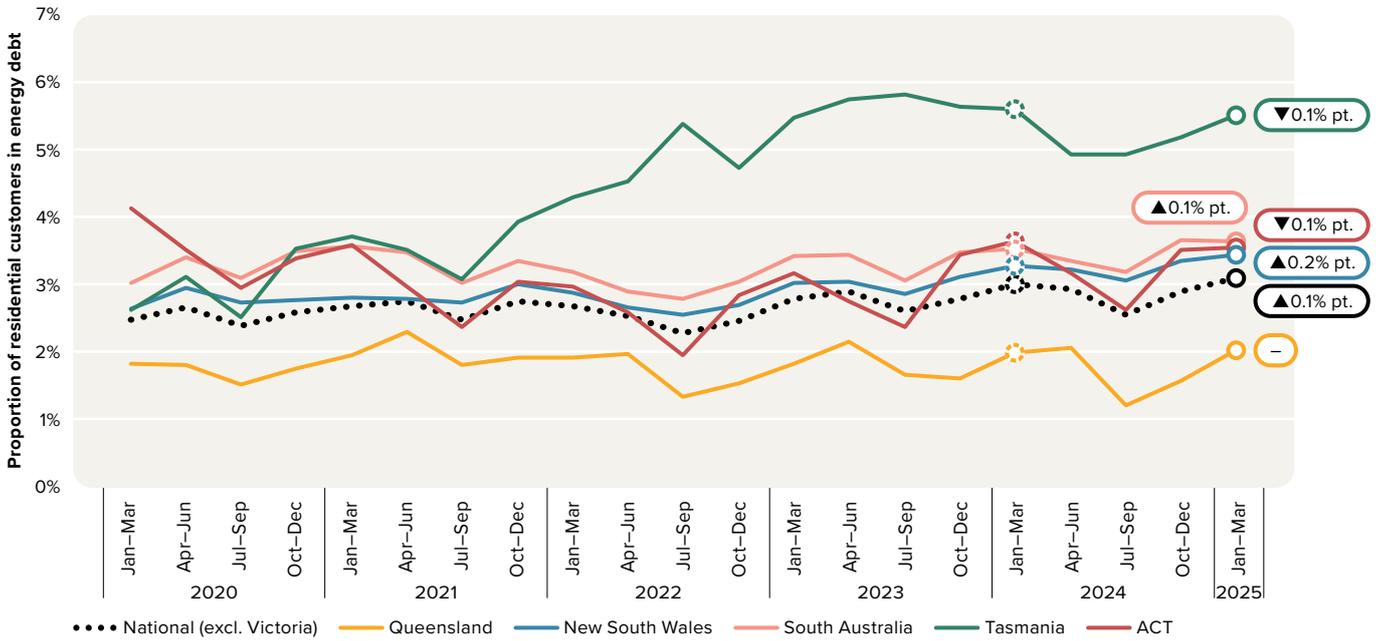
As at 31 March 2025:

- the overall number of residential customers with energy debt had increased from 205,963 to 215,637 (up 5%) over the 12 months since 31 March 2024
- the proportion of residential customers with energy debt had increased from 3.0% to 3.1% over the 12 months since 31 March 2024 (Figure 6.14)
- the average debt per residential customer with energy debt had increased from \$1,106 to \$1,415 (up 28%) over the 12 months since 31 March 2024 (Figure 6.15).

643 [National Energy Retail Law](#), Division 7, Section 50.

Further analysis and new data will be provided in the AER's Annual retail markets report 2024–25, due to be published in November 2025.

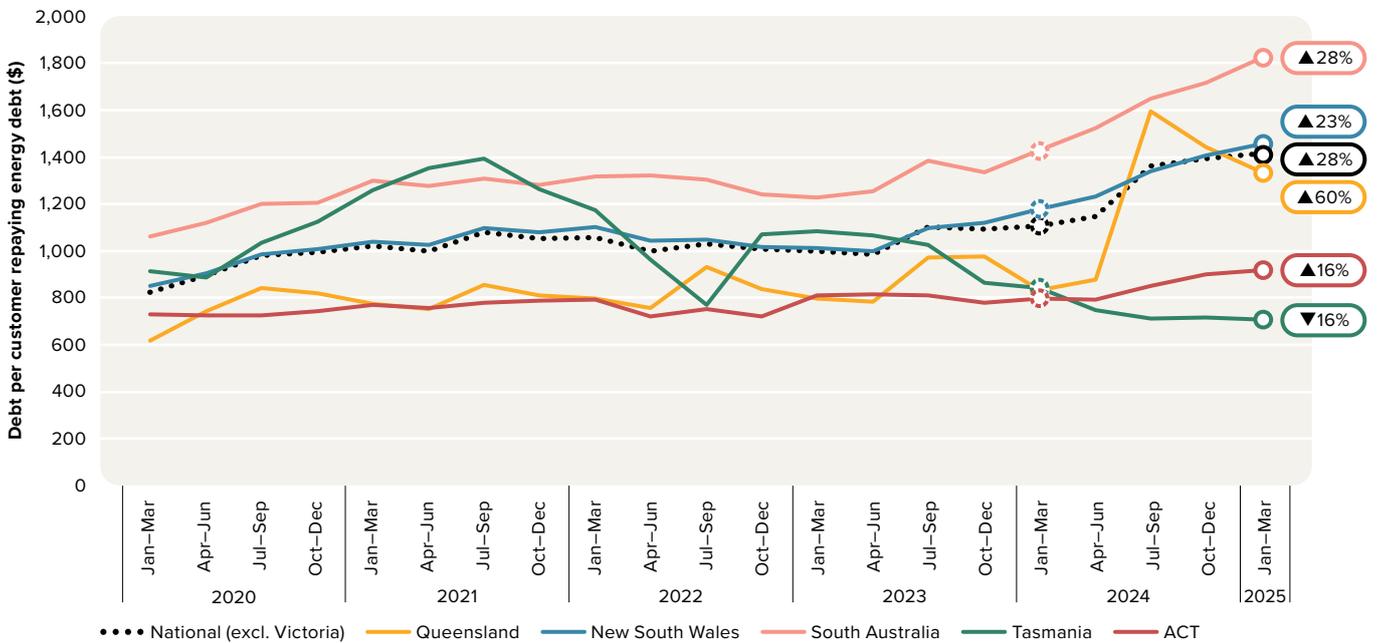
Figure 6.14 Residential electricity and gas customers in energy debt



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 2024–25*, June 2025.

Figure 6.15 Average debt per residential customer repaying 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 2024–25*, June 2025.

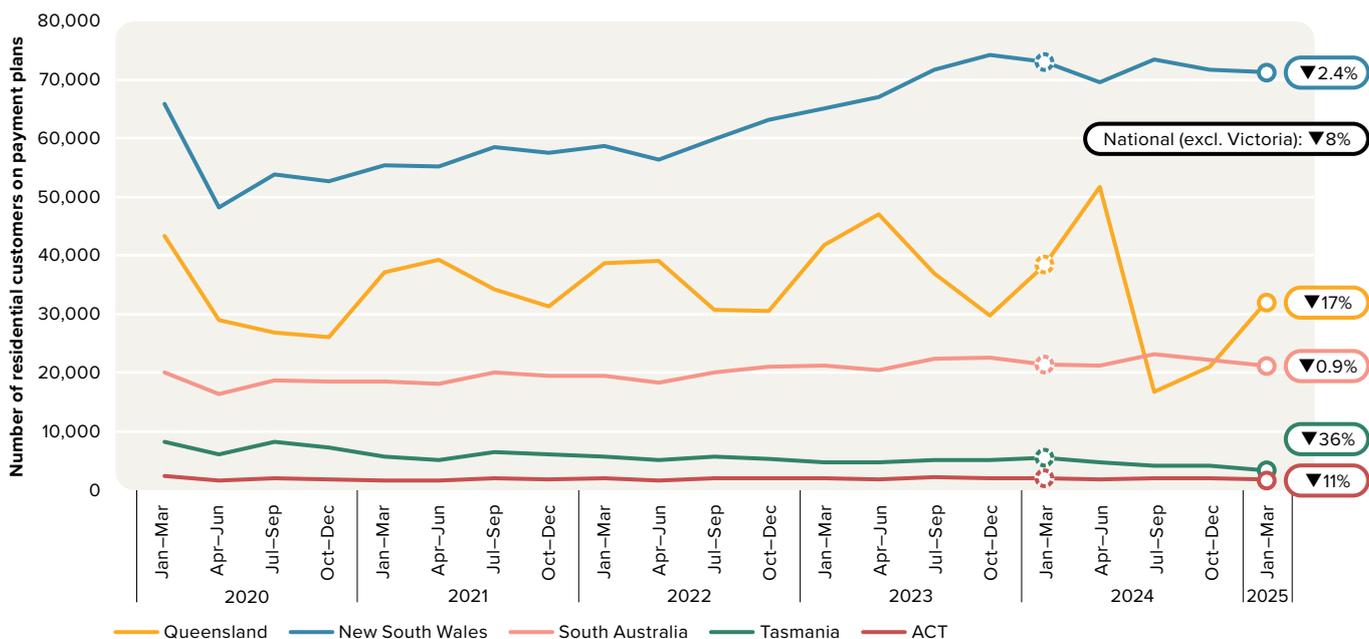
6.8.2 Customer support

Payment plans

As at 31 March 2025, the overall number of residential energy customers on a payment plan had decreased from 140,190 to 129,498 (down 8%) over the 12 months since 31 March 2024.

The significant decrease in the number of residential customers on payment plans in Queensland was believed to be attributable to the Queensland Government's Cost-of-Living Rebate (Figure 6.16).⁶⁴⁴

Figure 6.16 Residential electricity and gas customers on payment plans



Source: AER, *Quarterly retail performance report, Q3 2024–25*, June 2025.

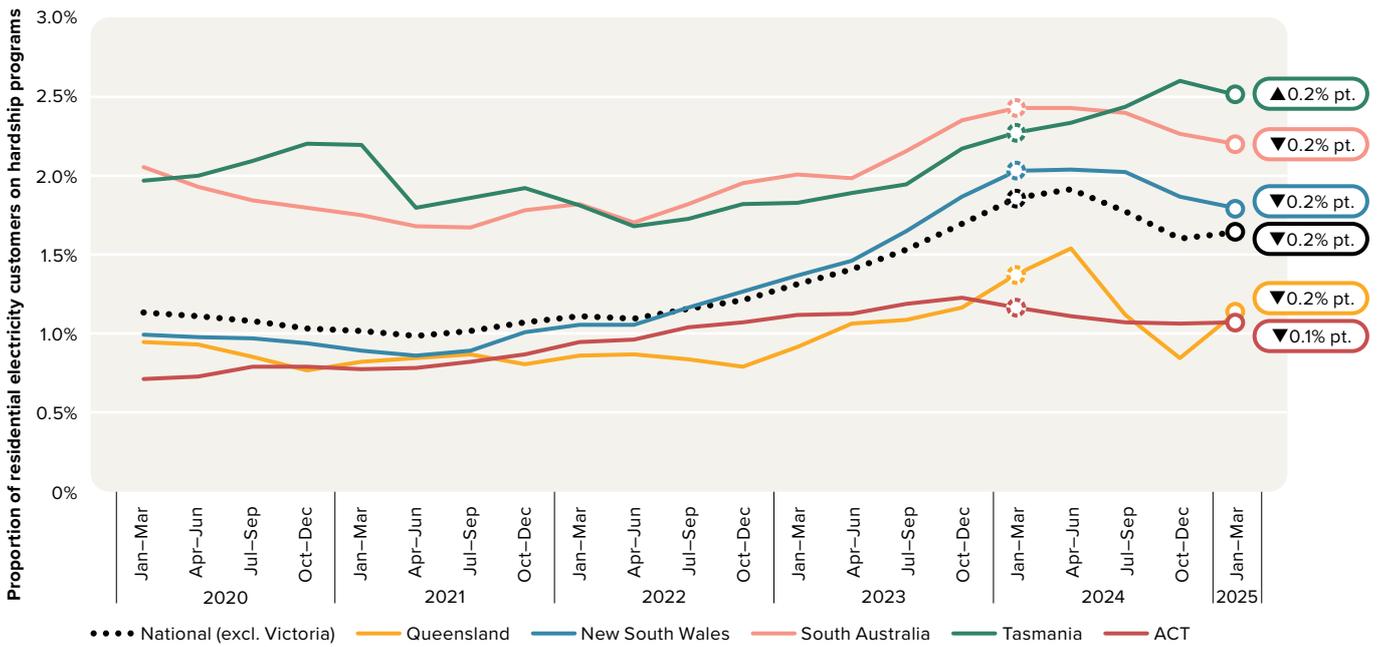
Hardship programs

As at 31 March 2025:

- around 1.6% of residential electricity customers were on hardship programs, marginally less than on 31 March 2024 (Figure 6.17)
- around 1.2% of residential gas customers were on hardship programs, marginally less than on 31 March 2024 (Figure 6.18).

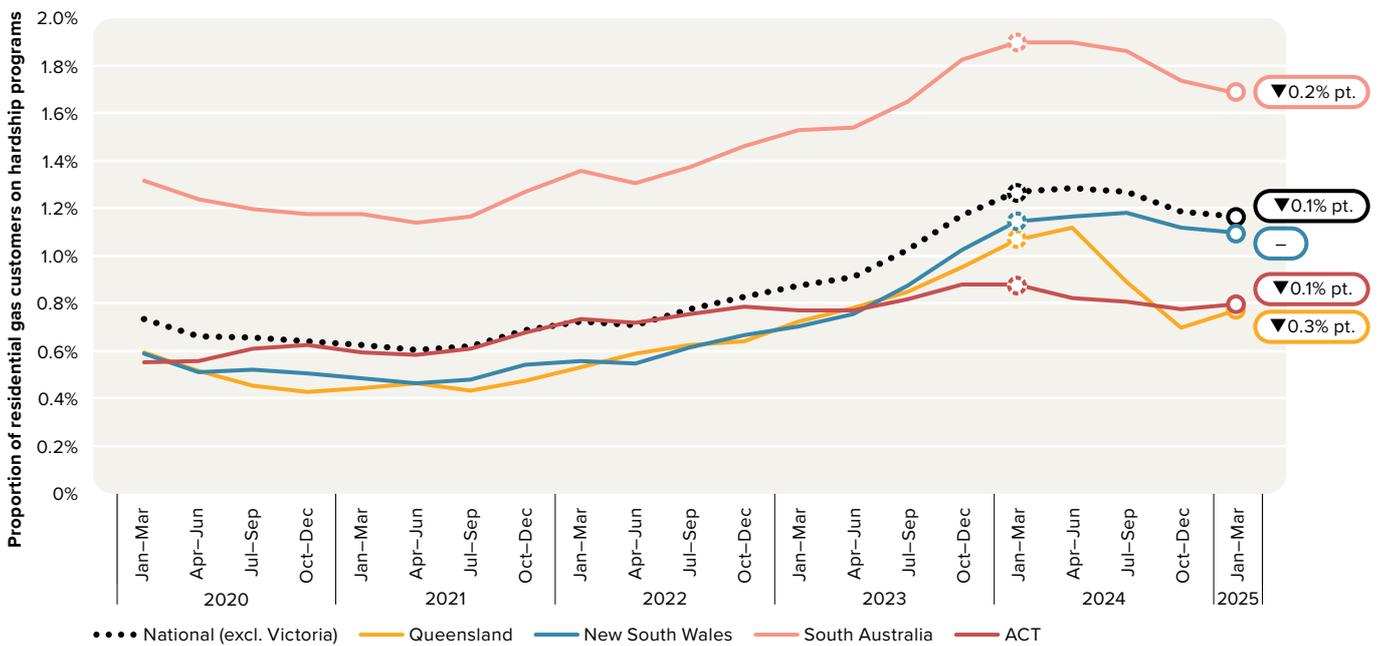
644 Queensland Government, [Cost-of-Living Action](#), accessed 15 July 2025.

Figure 6.17 Residential electricity customers on hardship programs



Source: AER, Quarterly retail performance report, Q3 2024–25, June 2025.

Figure 6.18 Residential gas customers on hardship programs

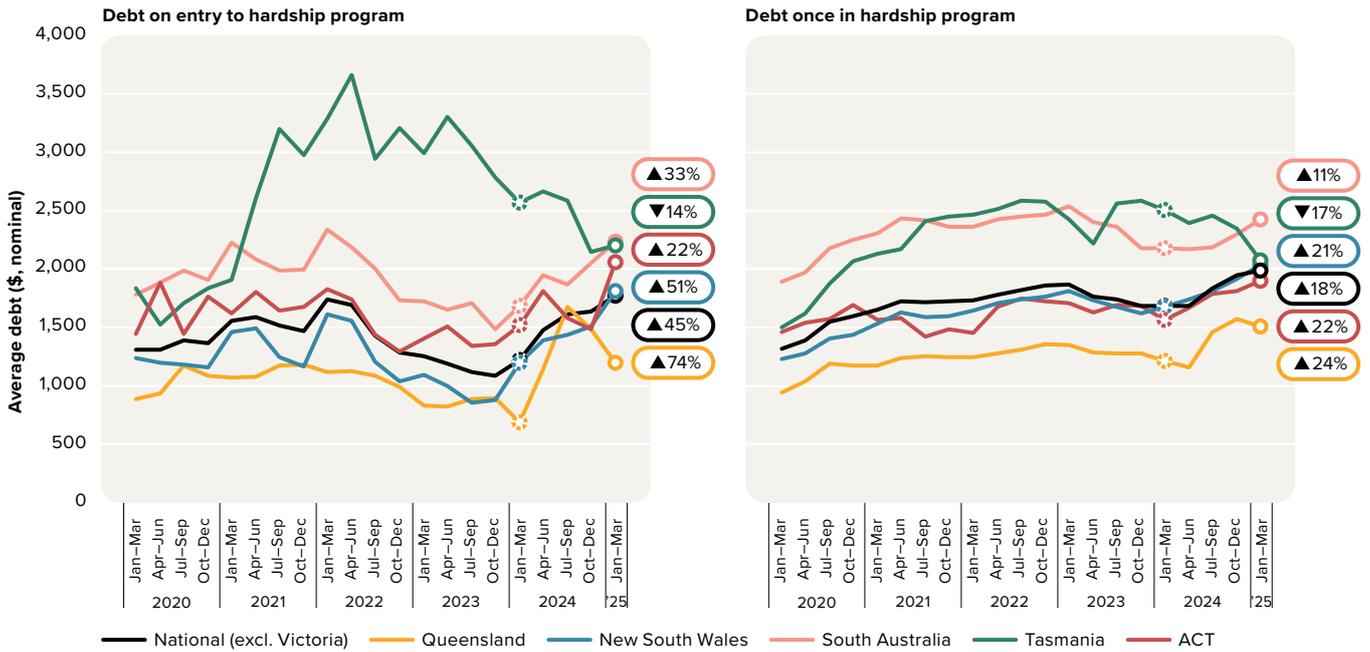


Source: AER, Quarterly retail performance report, Q3 2024–25, June 2025.

Despite the broadly decreasing number of customers on hardship programs, both the average level of debt and the average level of debt on entry to a hardship program increased in 2024–25 (Figure 6.19 and Figure 6.20).

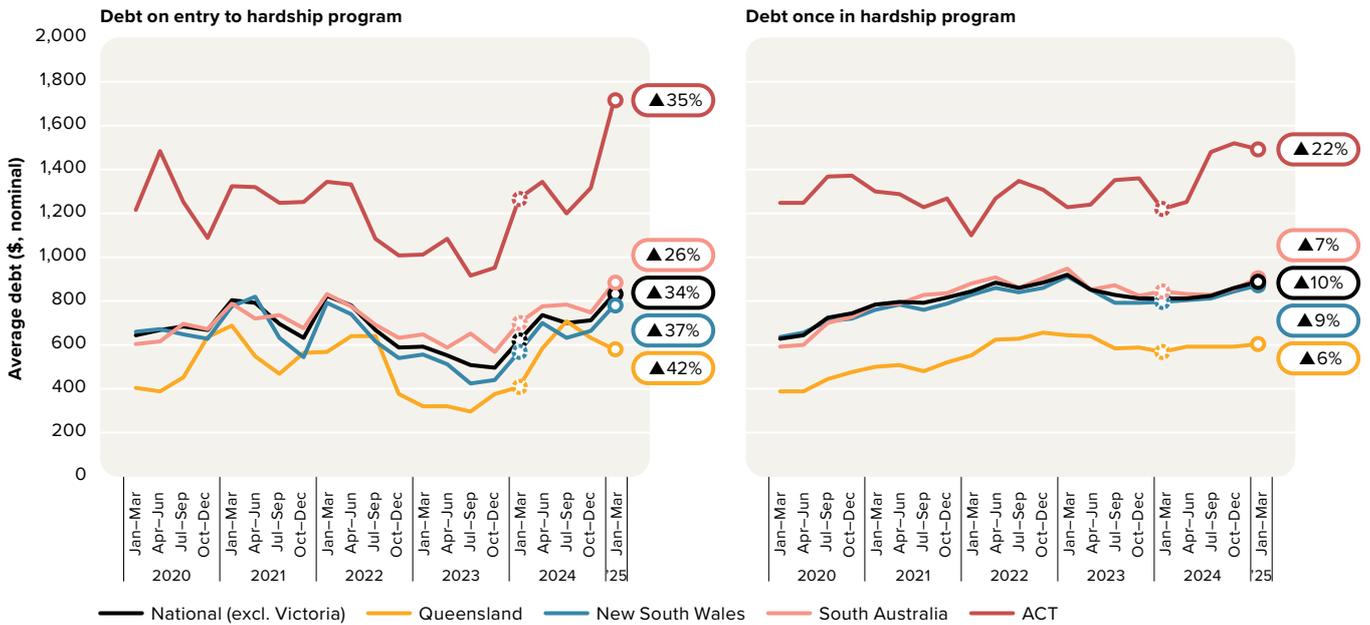
While being on a hardship program provides customers experiencing payment difficulty with added protections, the programs themselves could be more effective if they provided these customers with additional assistance, such as identifying opportunities to lower their energy usage, which would help customers reach a sustainable position for their future energy use and payments.

Figure 6.19 Average hardship debt – residential electricity customers



Source: AER, Quarterly retail performance report, Q3 2024–25, June 2025.

Figure 6.20 Average hardship debt – residential gas customers



Source: AER, Quarterly retail performance report, Q3 2024–25, June 2025.

6.8.3 Disconnecting customers for non-payment

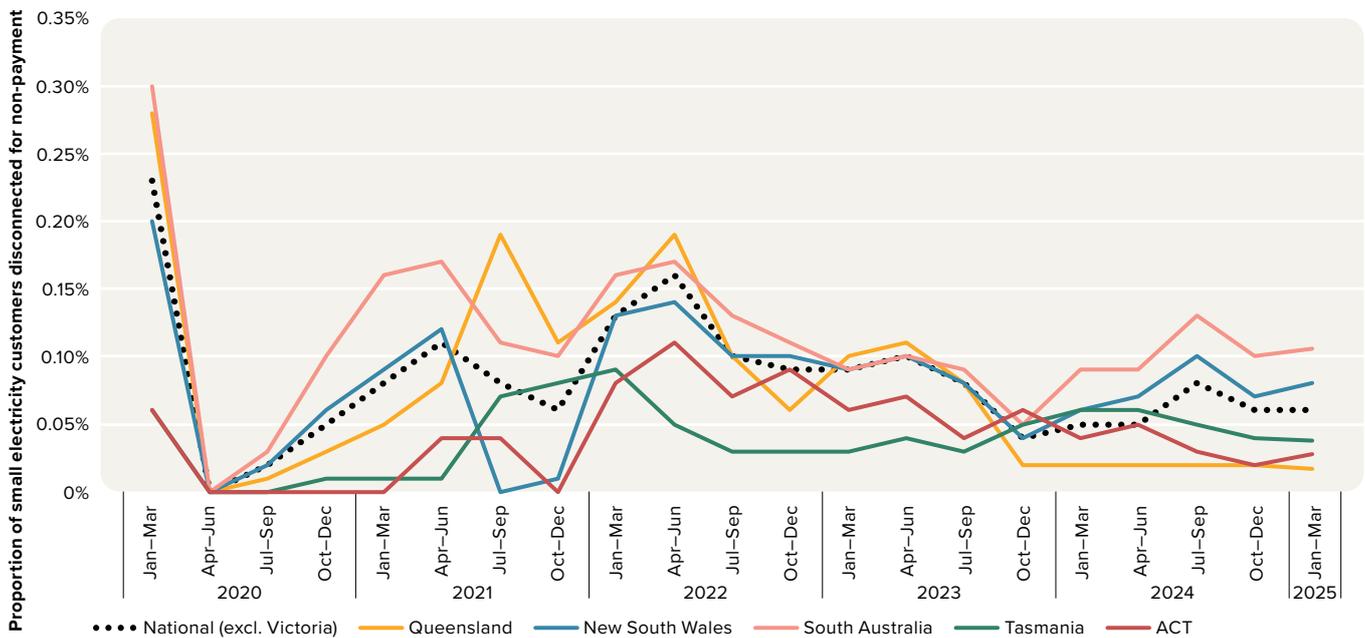
Under the Retail Law, disconnection for non-payment of bills is a last resort option. Disconnection is not permitted at all in certain circumstances – such as when a customer’s premises are registered as requiring life support equipment, when a customer on a hardship program is meeting their payment obligations or where a customer’s debt is below \$300. Action 10 of the *Towards energy equity* strategy committed to review the consumer energy debt threshold for disconnection, which was progressed as part of the AER’s Review of payment difficulty protections in the NECF. On 15 May 2025, the AER published its findings from this review, which identified an opportunity to strengthen minimum disconnection protections by increasing the minimum disconnection amount. We also published a draft decision proposing to increase the minimum disconnection amount to \$500 (including GST).⁶⁴⁵ A final decision is expected in mid-2025.

There are also specific times during which consumers are protected from disconnection. Typically, disconnections cannot occur:

- on a Friday, Saturday, Sunday, public holiday, or the day before a public holiday
- between 20 December and 31 December (inclusive)
- before 8 am or after 3 pm on any other day.

The rate of disconnections remains lower than in pre-COVID-19 years. This is encouraging because the AER’s *Statement of Expectations*, which directed retailers not to disconnect small customers during COVID-19, lapsed on 30 June 2021.⁶⁴⁶ The persistence of lower disconnection rates is apparent for both small electricity (Figure 6.21) and small gas (Figure 6.22) customers.

Figure 6.21 Disconnection for failure to pay – small electricity customers

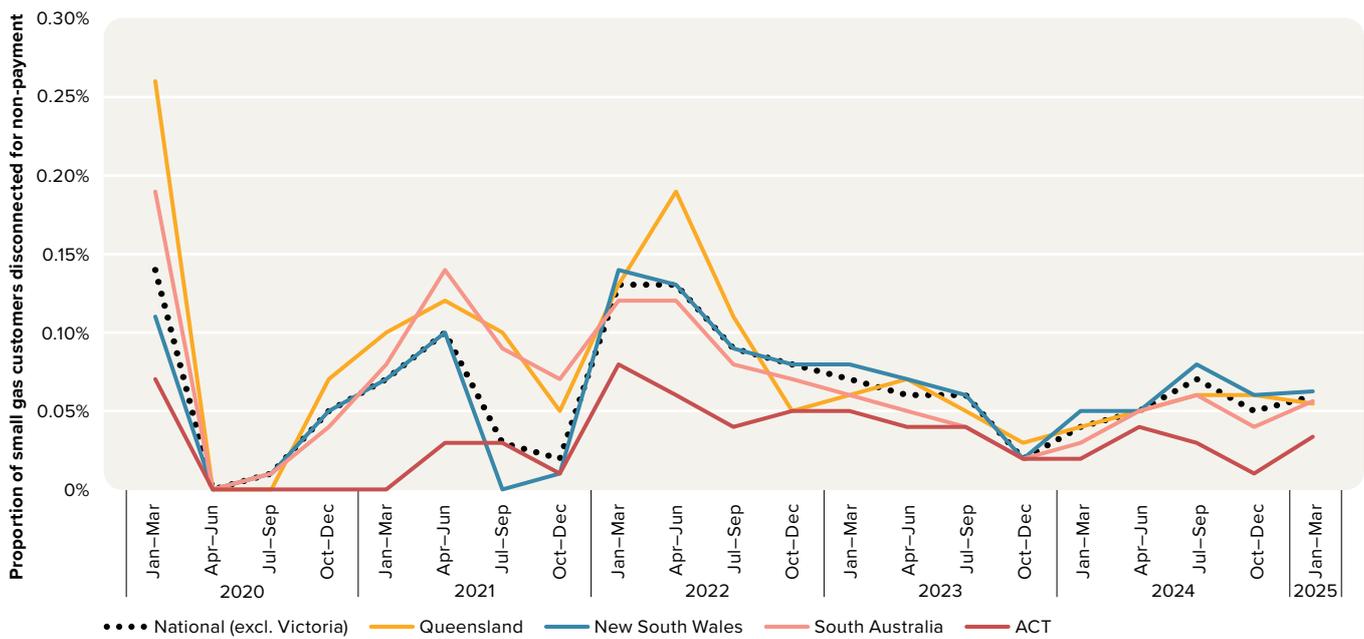


Source: AER, *Quarterly retail performance report, Q3 2024–25*, June 2025.

645 AER, [Draft decision - Minimum disconnection amount – 2025 review](#), Australian Energy Regulator, 15 May 2025.

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

Figure 6.22 Disconnection for failure to pay – small gas customers



Source: AER, Quarterly retail performance report, Q3 2024–25, June 2025.

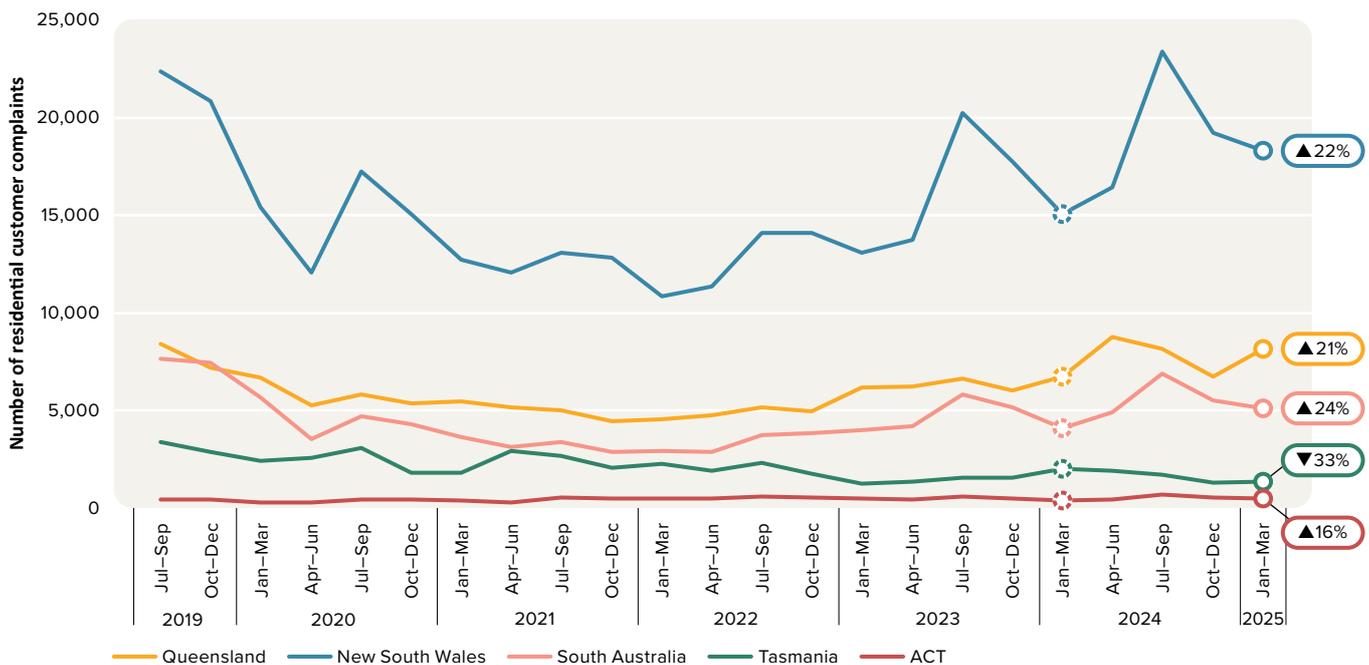
6.8.4 Customer complaints

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

Over the 12-month period to 31 March 2025:

- 140,136 customer complaints were made to retailers, 19,940 (17%) more than were made in the previous 12 months. Retailers attributed higher volumes of complaints to price increases, cost-of-living and affordability challenges, and the implementation and consolidation of their new retail customer service platforms.
- The primary category of complaint was billing (including pricing, billing errors, payment arrangements and debt recovery practices).
- The number of complaints about smart meters (anything related to metering contestability) was relatively low; however, there were significantly more than were made in the previous 12 months. It will be important to continue monitoring this metric given the AEMC’s rule change to accelerate smart meter deployment to achieve universal uptake by 2030 (chapter 3, section 3.8.1).

Figure 6.23 Residential customer complaints



Source: AER, Quarterly retail performance report, Q3 2024–25, June 2025.

6.9 Compliance and enforcement outcomes

Compliance and enforcement activity is 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 AER’s 2024–25 compliance and enforcement priorities relating to retail markets were:

- Improve outcomes for customers experiencing vulnerability, including by improving retailer hardship policies and access to 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 and tariff change notification requirements.

Key compliance and enforcement activities in retail markets in the 2024–25 financial year included:

- securing a Federal Court finding that AGL had breached the National Energy Retail Rules by failing to notify and refund customers for overcharges obtained from Centrepay payments – AGL was ordered to pay penalties totalling \$25 million⁶⁴⁷
- securing a Federal Court penalty against CAM Engineering for failing to become a member of the Energy and Water Ombudsman NSW (EWON) scheme, in breach of the AER’s Retail Exempt Selling Guideline⁶⁴⁸
- 5 Origin Energy subsidiaries ordered to pay penalties totalling \$12 million for more than 5,000 occasions where life support obligations under the National Energy Retail Rules (the Retail Rules) were breached – Origin also undertook to make a \$1 million community-based contribution to organisations assisting people using life support equipment⁶⁴⁹
- securing payment of \$542,400 for infringement notices issued to Powershop Australia Pty Ltd for alleged breaches of the life support obligations in the Retail Rules⁶⁵⁰

647 AER, [AGL penalised \\$25 million for breaches of overcharging rules related to Centrepay payments](#), Australian Energy Regulator, 19 December 2024.

648 AER, [CAM Engineering & Construction Pty Ltd: Breach of the National Energy Retail Law](#), Australian Energy Regulator, 4 July 2025, accessed 18 July 2024.

649 AER, [Origin subsidiaries penalised \\$12 million for breaching life support obligations](#), Australian Energy Regulator, 18 December 2024, accessed 18 July 2025.

650 AER, [Powershop fined \\$542,400 for alleged life support breaches](#), Australian Energy Regulator, 29 May 2024, accessed 18 July 2025.

- securing payment of \$135,600 for infringement notices issued to Locality Planning Energy Pty Ltd for alleged breaches of the National Electricity Law by owning embedded networks at residential sites without being registered with the AEMO or exempted by the AER⁶⁵¹
- securing payment of \$135,600 for infringement notices issued to Ergon Energy Queensland Pty Ltd for alleged failures relating to life support registration and deregistration obligations⁶⁵²
- reviewing retailers' family violence policies to ensure retailers are complying with new family violence protections that commenced in May 2023 under the Retail Rules – on 1 April 2025, the AER's Retail Compliance Procedures and Guidelines also updated to include new reporting obligations for breaches of the family violence obligations.

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. This includes activities relating to wholesale markets and networks, in addition to retail markets. The AER's compliance functions cover all NEM regions, excluding the energy retail market in Victoria, which is regulated by the Essential Services Commission (Victoria).⁶⁵³

More detail on the AER's compliance and enforcement work is available in the *Annual compliance and enforcement report 2024–25*.⁶⁵⁴

6.9.1 Compliance and enforcement priorities for 2025–26

The AER published its compliance and enforcement priorities for 2025–26 on 1 July 2025.⁶⁵⁵

The priorities align with the objectives in the AER's Strategic Plan 2020–2025.⁶⁵⁶ The compliance and enforcement priorities for 2025–26 relating to retail markets and energy consumers are:

- Improve outcomes for consumers experiencing vulnerability, including by ensuring access to hardship protections and affordable payment plans that reflect capacity to pay, and improving retailer hardship policies.
- Protect consumers during the universal transition to smart meters by focusing on compliance with smart meter rollout requirements, resultant tariff changes and ongoing metering practices.

651 AER, [LPE pays infringement notices for alleged breaches of the National Electricity Law](#), Australian Energy Regulator, 2 October 2024, accessed 18 July 2025.

652 AER, [Ergon Energy fined for alleged breaches of life support rules](#), Australian Energy Regulator, 3 May 2024, accessed 18 July 2025.

653 Other industry letters include information about [providing energy plan information on energy made easy, expectations around HelpPay and expectations on hardship obligations](#).

654 AER, [Annual compliance and enforcement report 2024–25](#), Australian Energy Regulator, 23 July 2025.

655 AER, [AER Compliance and enforcement priorities 2025–26](#), Australian Energy Regulator, July 2025.

656 AER, [Strategic Plan 2020–2025](#), Australian Energy Regulator, 14 December 2020.