
Australian Energy Market Commission

FINAL REPORT

2016 Retail Competition Review

30 June 2016

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About the AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

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Executive summary

Competition in retail electricity and gas markets continues to evolve and is becoming more dynamic. New types of retail offers, technologies and energy services provide customers greater choice and control over how they manage and use their electricity.

This third annual review of competition in electricity and gas markets across jurisdictions in the National Electricity Market (NEM), finds that competition continues to be effective in most jurisdictions and is delivering benefits for customers. We have also found that there is a need to make it easier for customers to access the choices available to them. New research undertaken for this year review reveals that this is particularly important for certain customer segments as new technology expands the range of options available in the market.

This review was undertaken by the Australian Energy Market Commission (AEMC) at the request of the Council of Australian Governments (COAG) Energy Council.¹

The Commission's assessment of the state of competition in retail energy markets for small customers² is based on an assessment of key market indicators. This, in turn is informed by analysis of energy market data, quantitative and qualitative customer research, a survey of retailer views and stakeholder submissions. We considered information on the indicators collectively to form a judgement on the overall state of competition in each market.

Competition is effective in most jurisdictions

Overall, the Commission has found that competition remains effective for retail electricity and gas markets in New South Wales, Victoria and South Australia, and for the electricity market in South East Queensland. Key markets indicators in these markets have improved or remained steady since 2014.

In these markets, our customer survey found that customer's satisfaction with their electricity retailer, the quality of customer service and value for money improved in 2016. Around seven in 10 customers were happy with the quality of service provided by their retailer. Customers are shopping around, with about 30 per cent of customers investigating their options in the last 12 months and around 19 per cent of electricity customers and 17 per cent of gas customers changing retailer in 2015. The benefits of shopping around are more substantial as the diversity of offers and the difference between standing and market offers grows. Customers in those jurisdictions identified above where competition remains effective could now save between eight per cent and 30 per cent on their electricity bill if they shop around regularly. New retailers have entered in these markets, second tier retailers have increased their market share and market concentrations have declined. In 2015, there were six new retail electricity market entrants in New South Wales, five in Victoria, and two in South Australia and South East Queensland.

¹ The Terms of Reference for this review were formally agreed by the former Standing Council on Energy and Resources, now known as the COAG Energy Council.

² Small customers include residential customers and small business customers and exclude larger industrial commercial energy uses. The threshold of annual energy consumption for these customers varies by jurisdiction both for electricity and gas.

Competition is less effective for retail electricity and gas markets in the Australian Capital Territory and for retail gas markets in South East Queensland. While there is limited competition in the Australian Capital Territory, there has been a slight reduction in market concentration and two retailers indicated that they are considering expanding, while two other retailers are considering entering in the next one to two years. There have also been increases in the number of customers investigating their options and the number of customers who are generally satisfied with their market arrangements. Competition is limited in the South East Queensland gas market due to its relatively small size compared to the region's retail electricity market and the retail gas markets of other states. Only two retailers are competing for customers and market concentration increased in the last 12 months, although most customers were satisfied with their gas retailer.

In the smaller markets of regional Queensland and Tasmania effective competition is yet to emerge in both the retail electricity and gas markets. Almost eight out of 10 customers in these jurisdictions said that they would like more choice of electricity companies. The Commission does not expect the level of competition in the retail electricity market in regional Queensland to change significantly unless there are changes to the way the Uniform Tariff Policy is implemented.

Deregulate energy prices where competition is effective

Energy prices have been deregulated in most retail markets but at the time of this analysis standing offer prices were regulated in the South East Queensland, regional Queensland, Australian Capital Territory and Tasmanian electricity markets and the New South Wales retail gas market.

Based on our findings for all competitive indicators, the Commission considers that there is sufficient competition in the South East Queensland electricity market to remove retail price regulation on 1 July 2016.

The Commission also considers there is sufficient competition in the New South Wales retail gas market to remove retail price regulation from 1 July 2017.

Price deregulation is likely to promote further competition in these markets to deliver innovation, a greater range of offers and competitive prices. Following deregulation of electricity prices in New South Wales on 1 July 2014 there is evidence of new retailer entry, declines in market concentration and an expanded range of offers.

Given the nature of regional gas markets in New South Wales, ongoing monitoring of retailers' offers by IPART after the introduction of price deregulation will be important to assess if suitable offers continue to be available to customers in regional areas.

A new era in competition is emerging

Enabling technologies and the services they provide are creating opportunities for retailers to develop products and offers that better align with customer preferences. The drivers of investment and development are increasingly being devolved to consumers as technological change allows consumers to choose how their energy is sourced and used. These technologies and services are also creating opportunities for new businesses that place competitive pressure on the "traditional" retailer business

model. New businesses and “traditional” retailers are competing to offer customers solar photovoltaic panels and electricity storage batteries individually and in combination with a variety of financing options, including outright sale, lease and power purchase agreements. Other products and services being offered to customers include home energy management systems and online energy usage information.

Our research on new and emerging technologies found that many customers find new technologies appealing but there are significant gaps in information about what these technologies mean for them. This may indicate a need to build customer confidence, knowledge and understanding to improve customer outcomes.

As customers are offered an increasing number of new products and energy services there is a need to consider how consumer protection frameworks should evolve. Our recommendations from the 2015 strategic priorities remain relevant, which are that:

- The AEMC and Energy Consumers Australia (ECA) work alongside the Energy Council to determine how the energy consumer protections framework needs to evolve.
- The Energy Council successfully complete its current review of the National Energy Customer Framework (NECF)³ in light of the changing business models facilitated by technological change and existing Australian Consumer Law protections.

Customer access to the choices available to them

Taking into account different customer experiences, behaviours and attitudes, the Commission considers there is still a need for a strategic and coordinated approach to enhance customers’ awareness of energy use and costs, and the tools available to assist customers to access competitive retail market offers and investigate new products and services.

The 2014, 2015 and 2016 retail competition reviews have all highlighted the low customer awareness of the availability of the government-run comparator websites that can assist customers to find a suitable energy plan. Our customer research, published with this report, demonstrates that those who used these websites to investigate their options were significantly more aware of the choices available to them and also more confident they could find the right information to choose a suitable energy plan.

Our analysis found that customers could make significant savings by simply comparing offers and switching to a better one. For typical customers switching from an electricity standing or default offer to a competitive market offer, savings could be up to; \$140 in South East Queensland; \$256 in New South Wales; \$383 in Victoria; and \$312 in South Australia (see Chapter 11). The proportion of customers on generally higher priced standing offers has declined, however the 2016 customer survey suggests around 50 per cent of customers have not switched electricity retailer in the last five years. These customers could probably find a better deal in today’s market. The AEMC will continue to monitor the growing gap between standing and market offers in some retail

³ For more information, see COAG Energy Council 2015, *Reform Agenda Implementation Plan – Progress Report*, 23 July 2015, viewed 20 June 2016, Canberra, <http://www.scer.gov.au/sites/prod.energycouncil/files/publications/documents/Council-Implementation-Plan-July-20151.pdf>.

electricity markets and the effect on customer activity and outcomes in future competition reviews.

As part of our customer research a segmentation analysis was conducted to determine the broad nature of customer vulnerability across retail energy markets and to identify the customer segments that may require further support to engage in the market. Customer segments were identified based on a mix of energy market behaviours, attitudes and personal circumstances. Customer interviews and online forums were also conducted as part of this research.

The segmentation analysis found that residential energy customers sit on a spectrum from low risk to high risk of vulnerability and that a customer's degree of vulnerability varies over time, depending on their financial, social and personal circumstances.

Generally, vulnerable customer experiences and outcomes are similar to all other customers - however, as vulnerable customers are more at risk financially than other customers, negative energy market outcomes may have greater consequences for them. Customers may move in and out of vulnerability over their lives.

Customers in some vulnerability segments are engaging in the market at similar rates to other customers and are familiar with, and connected into the available support services, such as concessions, rebates and payment plans. Customers in other segments are less likely to have shopped around for a better offer. Many do not know how to investigate their options, or feel they do not have the time to shop around. Some are not linked into support services and feel embarrassed to ask for assistance.

This research suggests that different customers segments will require different approaches to increase awareness and engagement. Some segments would benefit from targeted information about the tools available, so that they can investigate their options and capture the savings available from competitive market offers. Others require information about the support services available. Our customer research also suggests that some customers who may be eligible for concessions are not aware of them, and that some customers who are particularly vulnerable may not be eligible for them.

We continue to recommend that jurisdictions implement coordinated awareness and engagement programs to:

- raise customer awareness of the government-run comparison websites;
- increase customer understanding of the link between energy use and costs, the benefits of shopping around regularly, and the concessions and support services available;
- inform customers of the benefits and costs of new products and services to assist them to make informed decisions;
- tailor communications to different audiences as set out in the AEMC's consumer engagement blueprint⁴; and

⁴ This was prepared for the New South Wales Government, however recommendations are applicable in other jurisdictions. AEMC, *Review of competition in the retail electricity and natural gas markets in New South Wales, Supplementary Report: Increasing Consumer Engagement*, AEMC, 31 October 2013, Sydney.

- target vulnerable customers who are not engaged with the energy market or support services.

Assistance with the development of jurisdictional awareness and engagement programs could be provided by the AEMC, drawing on external expertise, and could build on the existing AEMC consumer engagement blueprint.

Recommendations

The Commission has made recommendations for consideration by jurisdictions that seek to improve customer outcomes and promote competition in retail energy markets. Many of these recommendations have been made in previous competition reviews and remain important to address. We recommend that:

1. Jurisdictions continue to phase out retail price regulation for electricity and natural gas where effective retail competition can be demonstrated, as agreed under the Australian Energy Market Agreement.
2. Jurisdictions coordinate the development of NEM-wide awareness and engagement programs to make it easier for customers to access the best options for their circumstances and improve customer confidence in the energy markets.
3. Jurisdictions review concession policies to assess opportunities to better target them to customers most in need and to harmonise their structure across jurisdictions, where substantive differences exist.
4. Jurisdictions continue to harmonise regulatory arrangements to reduce the long-term costs of new businesses or retailers competing across jurisdictions.

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1 About this review

The Australian Energy Market Commission (AEMC) has completed the 2016 Retail Competition Review (the 2016 review). This report sets out our findings and recommendations.

The 2016 review is our third annual review of competition in the electricity and gas retail markets across the jurisdictions within the National Electricity Market (NEM). These include Queensland, New South Wales, the Australian Capital Territory, Victoria, South Australia and Tasmania.

The review was conducted under standing terms of reference set by the Council of Australian Governments (COAG) Energy Council.⁵

1.1 Review purpose and scope

The purpose of the AEMC's annual competition reviews is to support the jurisdictions' commitment under the Australian Energy Market Agreement (AEMA) to remove price regulation in electricity and gas retail markets where effective competition can be demonstrated. In these reviews, we assess the current state and possible future development of retail competition across the NEM using objective measures and analysis, and comment on NEM-wide issues affecting competition. We also provide advice to inform jurisdictional decisions on the retention, removal or reintroduction of retail energy price controls.

Our retail competition reviews focus on small customers in retail energy markets. These include residential and small business customers and exclude larger industrial and commercial energy users.⁶

Similar to our previous reviews, the 2016 review focused on five competitive market indicators:

- customer activity in the market;
- customer outcomes in the market;
- barriers to retailers entering, expanding or exiting the market;
- the degree of independent rivalry among retailers; and
- whether retail energy prices are consistent with a competitive market.

We used these indicators as a framework for assessing competition in each retail market. We considered information on the indicators collectively to form a judgement on the overall state of competition in each market.

⁵ A copy of the terms of reference is provided at Appendix A.

⁶ Small business customers are defined by reference to their consumption levels. In the Australian Capital Territory, Queensland and New South Wales, the consumption threshold for small business electricity customers is 100 MWh per annum. In Victoria, Tasmania and South Australia, the thresholds are 40 MWh, 150 MWh and 160 MWh per annum respectively. The threshold for small business gas consumers in the Australian Capital Territory, New South Wales, Victoria and South Australia is 1 TJ per annum, and the threshold for small retail gas consumers in Tasmania is 10 TJ per annum.

The 2016 review also looked at two additional issues related to the effectiveness of competition in retail energy markets – customer experiences and outcomes related to new and emerging energy products and services, and those for vulnerable customers.

1.2 Review process and information sources

Our process for the 2016 review included stakeholder consultation, research and analysis. As the first formal step in our consultation, we released an Approach Paper in October 2015, and invited stakeholders to make submissions on the paper and the state of competition in each NEM jurisdiction by December 2015. We received 11 submissions. A summary of submissions is provided at Appendix B.

We also invited stakeholders to contact us directly to discuss the review and provide comments and information. We held meetings with individual stakeholders throughout the review process, including with consumer groups, retailers, and jurisdictional ombudsmen, pricing regulators and governments.

In addition, to inform our analysis, we engaged consultants to conduct primary research for this review, including:

- Newgate Research (Newgate) to undertake quantitative and qualitative customer research. Newgate conducted customer surveys in late 2015 and did further qualitative customer research in early 2016.⁷
- Farrier Swier Consulting to conduct retailer research in early 2016. They conducted surveys and held interviews with a range of electricity and gas retailers across the NEM.⁸

We also engaged Oxera to provide information on how behavioural insights and behavioural economics could be incorporated into our analysis. Oxera's report considers how customers' behaviour and preferences can affect their engagement and participation in energy markets and how this may affect our competitive market indicators.⁹

In reaching our conclusions, we considered the findings of this research together with stakeholder input and additional data provided by Ombudsmen, retailers, jurisdictional regulators, the Australian Energy Regulator (AER) and the Australian Energy Market Operator (AEMO). Most of the additional data covered the 2015 calendar year. Where data was not available for this calendar year, we used data for the 2014-15 financial year. Data on current offers and prices was collected between October 2015 and May 2016. Our assessment framework and data inputs are discussed in more detail in Chapter 3.

⁷ Newgate Research, *New and Emerging energy Technologies and Services*, report to the AEMC, June 2016.

⁸ Farrier Swift Consulting, *2016 Energy Retailer Survey Report*, report to the AEMC, March 2016.

⁹ Oxera, *Behavioural insights into Australian retail energy markets*, report to the AEMC, March 2016.

2 Context for the review

To interpret the AEMC's findings and assessment of the state of competition, it is important to take account of the context of the 2016 review. In particular, two key points should be kept in mind:

- competition is an evolving, dynamic process; and
- the retail energy markets in the NEM jurisdictions are at different stages in this evolution and have different characteristics that influence the development of competition.

This chapter outlines the structure of electricity and gas markets in each jurisdiction and notes important differences in the regulatory arrangements that exist across jurisdictions.

2.1 Energy markets in the NEM jurisdictions are at different stages

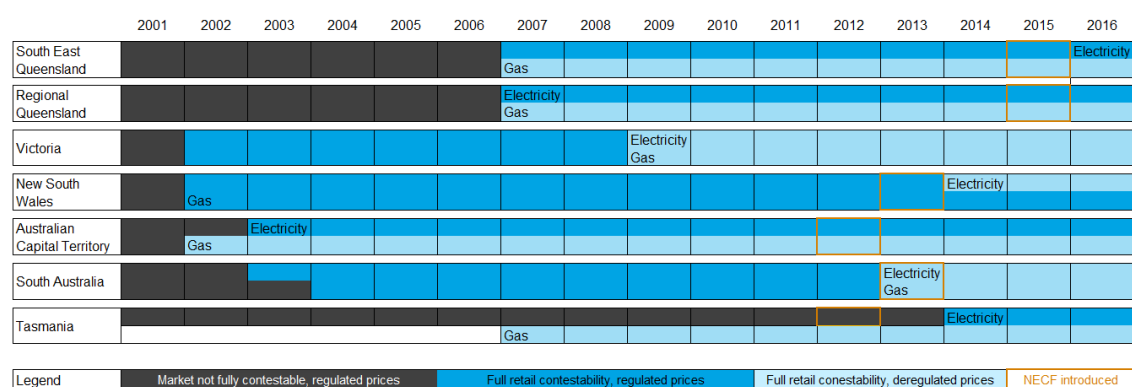
Prior to the 1990s, Australian energy markets comprised vertically integrated, government-owned monopolies. Jurisdictional regulation prohibited new energy retailers from entering the market and customers did not have a choice of energy retailer.

Energy retail markets began to change in 2002 when Victoria and New South Wales became fully contestable, and gas retail markets in the Australian Capital Territory also became fully contestable and retail price regulation was removed. Over time other NEM jurisdictions have opened up retail energy markets to competition and removed price regulation.

At the same time, regulation of energy retail markets has evolved to promote competition and influence the pace of these markets' transition through the competitive stages.

Figure 2.1 summarises the progress of retail energy market reform across the energy markets in the NEM. The sections below outline the structure of each markets and the status of retail energy market reform in each jurisdiction.

Figure 2.1 Progress of retail energy market reform across jurisdictions



2.1.1 Queensland

Queensland has two distinct energy markets – South East Queensland and regional Queensland. Full retail contestability was introduced in both markets in 2007, and price regulation was retained for electricity and removed for gas. Marked differences in these markets’ characteristics have influenced the pace at which competition has evolved. In particular, South East Queensland covers a much smaller geographical area than regional Queensland (25,000 square kilometres compared to more than one million square kilometres). It also has a much larger, denser customer base.

We have defined the South East Queensland and regional Queensland markets based on their electricity distribution areas (the Energex and Ergon Energy areas, respectively). For gas, while Toowoomba and Oakey fall into the Ergon Energy area, gas customers in these towns are supplied from the same pipeline as those in South East Queensland. Consequently, they have access to the same offers as gas customers in South East Queensland and have been included in this market.

Queensland implemented the National Energy Customer Framework (NECF) on 1 July 2015.¹⁰ Under the NECF, all electricity and gas retailers are required to offer a standard contract with regulated terms and conditions. Retailers can also offer market contracts that include minimum terms and conditions prescribed by law.

In **South East Queensland**, in December 2015, there were 11 electricity retail businesses (13 electricity retail brands) serving 1.4 million small electricity customers, and two gas retail businesses serving approximately 188,000 small gas customers.

Deregulation of retail electricity prices in South East Queensland will commence on 1 July 2016.¹¹ The decision to deregulate prices was confirmed following the Queensland Productivity Commission’s (QPC) draft recommendations in its Electricity Pricing Inquiry.¹²

In **regional Queensland**, in December 2015, one electricity retail business (Ergon Energy Retail) supplied almost all of the market’s small electricity customers, approximately 733,000 customers.

Electricity prices are subsidised in regional Queensland through the Uniform Tariff Policy (UTP). Under this policy, Ergon Energy Retail receives a subsidy so the prices paid by residential and small business customers in regional Queensland are based on the prices paid by the same classes of customers in South East Queensland. Other

¹⁰ State, Territory and Commonwealth energy ministers developed the NECF to promote national consistency in retail energy markets. The NECF establishes consumer protections and obligations regarding the sale and supply of electricity and natural gas to customers, with a particular focus on residential and small customers. Jurisdictions must pass their own legislation to implement the NECF and generally specify parts of the NECF that do not apply in their jurisdiction, and can also maintain other jurisdictional regulations that support or supplement aspects of the NECF reforms. A detailed guideline on the implementation of NECF is available at AEMC, *Guide to Application of the NECF*, Sydney, viewed 20 June 2016, <http://www.aemc.gov.au/Energy-Rules/Retail-energy-rules/Guide-to-application-of-the-NECF>.

¹¹ See Department of Energy and Water Supply 2016, Queensland Government, Brisbane, viewed 20 June 2016, <https://www.dews.qld.gov.au/electricity/prices>.

¹² Queensland Productivity Commission 2016, *Electricity Pricing Inquiry*, draft report, 3 February 2016, Brisbane, <http://www.qpc.qld.gov.au/files/uploads/2016/02/EPI-DRAFT-REPORT-Final.pdf>.

retailers do not have access to this subsidy. This has made it difficult for other retailers to enter the market at a competitive price.

Only some areas in regional Queensland have access to reticulated gas. These are Gladstone, Rockhampton, the Wide Bay-Burnett region (Bundaberg, Maryborough and Hervey Bay), Toowoomba and Oakey.

2.1.2 New South Wales

In December 2015, there were 22 retail electricity businesses (26 electricity brands) in New South Wales, supplying approximately 3.42 million small electricity customers. There were six gas retail business (eight gas retail brands) supplying approximately 1.27 million small gas customers.

Full retail contestability was introduced for electricity and gas customers in 2002, but retail price regulation was retained. The New South Wales Government removed retail price regulation for electricity on 1 July 2014. The prices of standard and market contracts are determined by retailers and monitored by the Independent Pricing and Regulatory Tribunal (IPART). Gas prices continue to be regulated through multi-year price agreements (known as Voluntary Pricing Arrangements) between the incumbent gas retailers¹³ and IPART.¹⁴

The New South Wales Government has committed to removing price regulation for retail gas markets from 1 July 2017 if certain conditions are met, including an increase in the level of competitive offers available to customers in regional New South Wales.¹⁵

New South Wales adopted the NECF in July 2013 with a number of variations.

2.1.3 Australia Capital Territory

The Australian Capital Territory's electricity market is the smallest in the NEM, and its gas market is the second smallest. In December 2015, there were four electricity retail businesses (and brands) supplying approximately 180,000 small electricity customers, and three gas retail businesses (and brands) supplying approximately 137,000 small gas customers.

The Australian Capital Territory introduced full retail contestability for gas in 2002, and for electricity in 2003. At this time, it removed retail price regulation for gas but retained it for electricity.

The Australian Capital Territory adopted the NECF on 1 July 2012.

2.1.4 Victoria

In December 2015, there were 22 electricity retail businesses (25 retail electricity brands) supplying approximately 2.74 million small electricity customers in Victoria, and nine

¹³ These retailers are AGL, ActewAGL and Origin Energy.

¹⁴ Depending on the customer's location the regulated offer retailer may be AGL, ActewAGL or Origin Energy.

¹⁵ See Department of Industry, Resources and Energy 2016, New South Wales Government, Sydney, viewed 20 June 2016, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/consumer-assistance/retail-gas-prices-the-way-forward>.

retail gas businesses (10 retail gas brands) supplying approximately 1.9 million small gas customers.

Full retail contestability was introduced for both electricity and gas in 2002. In January 2009, the Victorian Government removed retail price regulation for both markets.

Victoria has not adopted the NECF. Its retail energy markets are governed by the Victorian Energy Retail Code, which contains similar provisions to the NECF.

The prices of standing contracts are determined by retailers and monitored by the Essential Services Commission of Victoria (Victorian ESC). All retailers are required to offer standing contracts with regulated terms and conditions. Retailers are also able to offer market contracts where the terms and conditions are set by the retailers.

Compliance with minimum terms and conditions of standard market contracts is monitored by the Victorian ESC.

2.1.5 South Australia

In December 2015, there were 15 retail electricity businesses (18 retail electricity brands) supplying approximately 850,000 small electricity customers in South Australia, and five retail gas businesses (and brands) supplying approximately 439,000 small gas customers.

Full retail contestability was introduced for electricity in 2003 and gas in 2001 (although for gas, the systems required to handle mass transfers were not in place until July 2004).

South Australia implemented the NECF in February 2013, subject to some variations. At the same time, it removed retail price regulation for both electricity and gas. The Essential Services Commission of South Australia (ESCOSA) monitors and reports annually on energy retail prices.

2.1.6 Tasmania

Tasmania's electricity market is the second smallest in the NEM, and its gas market is the smallest. The roll-out of the state's gas network targeted large users and this, together with geographic barriers, has resulted in low gas penetration.

In December 2015, there was one retail electricity business supplying residential customers (Aurora Energy), and a second electricity retailer (ERM Power) competing for small business customers in Tasmania. In total, small customers number approximately 276,000. There were also two gas retailers supplying approximately 10,900 customers.

For electricity, Tasmania introduced full retail contestability at different times for different customer segments. For small business customers with consumption between 50 and 150 MWh per annum, full retail contestability was introduced in July 2011. For residential and remaining small business customers, it was introduced in July 2014. Since then, one retailer entered the small business segment in 2014, but no new retailer has entered the residential segment.

For gas, there has been full retail contestability without price regulation since the market's inception in 2007.

Tasmania adopted the NECF in July 2012 for retail electricity, though not for retail gas.

3 Approach and assessment framework

The approach we used to assess the current state of competition for our 2016 review was similar to our approaches for the 2014 and 2015 reviews. For this year's review we also looked at two additional issues – customer experiences and outcomes related to new and emerging products and services, and those for vulnerable customers in the market.

This Chapter outlines:

- how we defined the markets for the 2016 review; and
- the framework and data we used to assess the state of competition and the two additional issues.

3.1 Market definition

For this year's review, we adopted the same market definition as for the 2014 and 2015 reviews, specifically:

- For New South Wales, Victoria, South Australia, the Australia Capital Territory and Tasmania, we defined the jurisdiction as a single geographic market with two product markets: an electricity retail market and a gas retail market.
- For Queensland, we defined the jurisdiction as two geographic markets: South East Queensland and regional Queensland.¹⁶

Where data was available, we considered regional and urban areas separately in each jurisdiction to determine if there were material differences in customer outcomes and retailer behaviour for these areas. We also considered outcomes for small business and residential customers separately to identify any material differences for these two groups of customers.

Similar to our previous reviews, we limited our market definition to include licenced retailers supplying electricity or gas to small customers in NEM jurisdictions. As noted in our Approach Paper, we decided to consider customer experiences and outcomes related to new and emerging technologies and energy services in greater detail than in previous reviews (see Section 3.3 for further detail).

3.2 Framework used to assess the state of competition

To reach our conclusions on the current state of competition across the NEM we assessed each geographic and product market against five competitive market indicators, which reflect the criteria in our terms of reference:

1. customer activity in the market;
2. customer outcomes in the market;
3. barriers to retailers entering, expanding or exiting the market;

¹⁶ We defined Queensland's geographic markets based on the electricity distribution network areas. South East Queensland corresponds with the Energex area, which broadly includes Brisbane, Ipswich, Gold Coast and Sunshine Coast. Regional Queensland corresponds with the Ergon area, which covers the remainder of the state.

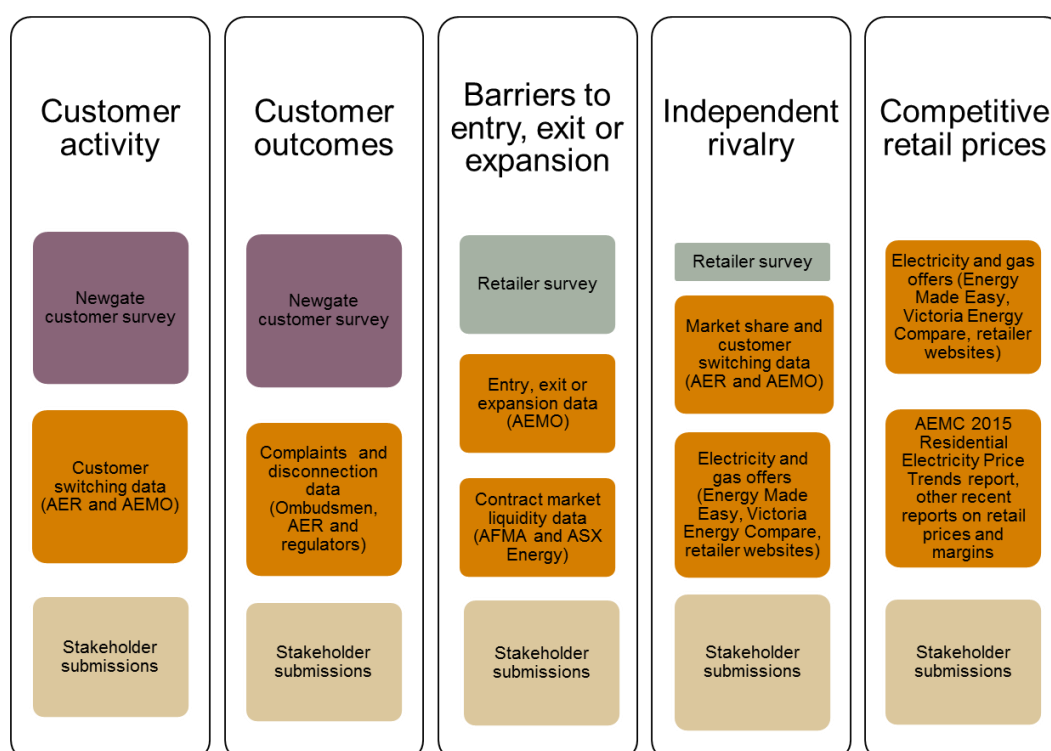
4. the degree of independent rivalry among retailers in the market; and
5. whether retail energy prices are consistent with a competitive market.

We analysed both quantitative and qualitative information on these indicators drawn from our primary research, and took account of behavioural insights. We also considered stakeholder comments and a range of additional data on the indicators (see Figure 3.1).

Then we considered our findings on all five competitive indicators collectively to assess whether outcomes in each geographic and product market are consistent with effective competition. We emphasise that we did not base this assessment on observations on any one indicator (or any part of one indicator) at one point in time. Nor did we use ‘critical thresholds’ for any of the indicators to decide whether competition is operating effectively. Rather, we considered the findings of our analysis of the five indicators collectively, together with additional information, to form a judgement on the overall state of competition.

The sections below provide more information on the competitive indicators and how we analysed them. Box 3.1 outlines information on behavioural insights and information, based on a report from Oxera, which can influence some of the competitive market indicators.

Figure 3.1 Information used to analyse market performance against the competitive indicators



3.2.1 Customer activity in the market

In competitive markets, customers are generally aware of the choices available to them and are able to act on those choices. By shopping around to receive better deals or service, they play an important role in maintaining downward pressure on prices and

driving retailers to provide new products and the quality of service customers demand. Customer activity is therefore an important indicator of whether competition is effective.

We used data from Newgate Research, the AER and AEMO to explore three aspects of customer activity:

- *Customer engagement* – the extent to which customers are shopping around for better energy deals, what they understand about retail energy markets, and what kinds of information they use to make their decisions.
- *Customer switching* – the rates of customer switching from one retailer to another and from one plan to another with the same retailer and the ease of switching.
- *Customer attitudes* – customer motivations and drivers for investigating options and shopping around, and what may be inhibiting them from investigating and choosing deals that better suit their needs.

We do not place undue emphasis on switching rates. High or low switching rates in isolation are not a sign of how well a market is functioning. We also consider data on the motivations for switching and the levels of satisfaction with the results of switching, to build up a more comprehensive picture of whether or not the switching activity is consistent with an effectively competitive market. For similar reasons, we do not consider information on the number of customers on a particular offer type, such as standing or market offers, in isolation.

3.2.2 Customer outcomes in the market

In effectively competitive markets, most customers are generally satisfied with the outcomes they receive in the market. In addition, those who are not satisfied are able to change to alternative products or suppliers that better suit their needs.

To assess markets against this indicator, we used data from the Newgate customer research as well as data on customer complaints to energy ombudsmen and retailers. We also used customer disconnection data from the AER and the Victorian ESC. We considered the following aspects of customer outcomes:

- *Customer satisfaction* with the level of choice available to them in the market, their current retailer and the products and services, level of service and value for money they receive.
- *Customer complaints* to their retailers and ombudsman.
- *Customer disconnection rates*.

3.2.3 Barriers to retailers entering, expanding in or exiting the market

Where competition is effective there will generally be low barriers to retailers entering, expanding in or exiting the market. This places competitive pressures on existing retailers to charge prices that reflect efficient costs and improve their offers. In considering this indicator, we used data from retailer surveys and interviews, plus data from AEMO, the Australian Securities Exchange (ASX) and the Australian Financial Markets Association (AFMA), to analyse the following:

- *Evidence of entry, exit or expansion* - which retailers entered or exited a market since the 2015 review, and how retailers' relative market shares have changed.
- *Retailer views* on the barriers they faced in entering or expanding in different energy markets.
- *Measures of contract market liquidity* - to assess whether retailers would be able to obtain hedging products to manage their risk exposure as they enter or expand in different markets.

3.2.4 Independent rivalry between retailers

An effectively competitive market will generally have a high level of independent rivalry. Independent rivalry describes the extent to which retailers compete to attract customers away from their rivals and retain existing customers. Such rivalry can drive product innovation to meet diverse customer needs, and can drive the prices of these products towards their marginal cost.

To assess markets against this indicator, we used data from AEMO and the AER and assessed offers available to customers in NEM jurisdictions to analyse the following:

- *Market share and concentration*, including how these have changed over time.
- *Customer switching between retailers*, including how small customer switching behaviour has changed over time and in response to changes within jurisdictions, and the trends in customer switching between, and within, different retailer tiers.
- *Product differentiation*, to assess whether retailers are competing by offering different products and services that meet customer needs.¹⁷

We also considered the role of innovation in competitive retail energy markets, and looked for evidence of product innovation in the offers available in the market.

3.2.5 Competitive retail prices

Retail prices can be expected to fluctuate with changes in the underlying costs of supply, changes in the behaviour of competitors, and in response to customer behaviour. Over time, retailers may be able to find ways to reduce underlying costs and manage the supply of services more cost-effectively. Where competition is effective these reductions in costs will ultimately be passed on to customers in the form of lower prices.

We used a range of information to assess this competitive market indicator, including our own pricing analysis from offers available to customers in NEM jurisdictions, and the work of consumer representatives and other analysts. Our analysis focused on:

- *Range of offers* – the range of bills that would result for a representative customer from the single-rate offers available in each market.¹⁸ We examined the

¹⁷ For example, this could include differences in branding, tariff structure, contract terms and conditions, GreenPower, solar services or other characteristics that customers value.

¹⁸ The representative customer is based on a representative usage profile for each region. The representative customer profiles are adopted from AEMC, *2015 Residential Electricity Price Trends*

differences across regions, between market and standing offers, and between the big three and second tier retailers.

- *Effective discounts* – whether higher offered discount rates were indicative of a lower total bill.

Box 3.1 Behavioural insights - customer engagement and participation in retail energy markets¹⁹

- Behavioural economics expands on “traditional” economic theory by using insights from psychology to explain the effects of cognitive and behavioural processes on how consumers make decisions in practice and the resulting market outcomes.
- Behavioural insights can improve our understanding of the influences that affect the way customers behave and make decisions. These insights may also help explain why poor customer outcomes sometimes occur, even in markets where there are several competing energy providers.
- For many people, their energy supply is not something that they consider on a day to day basis. That is, energy is not a tangible product that you can take home. Customers are not necessarily concerned with electricity or gas per se but the amenities that they provide (such as light and heat). In addition, choosing or switching energy suppliers is not something that is yet instinctive to many customers.
- Behavioural biases may reduce customers’ interest in and engagement with the energy market. In turn, this can lead customers to be inactive or use rules of thumb to make quick decisions, rather than considering all available energy offers.
- Common behavioural biases that can affect customer behaviour and market outcomes include the following:
 - **Limited customer capacity.** Choosing an energy plan can be daunting – even with access to information, customers may not have the time or knowledge to assess what is important. To make fully informed choices, customers need to understand, for example, tariff structures, market and standing offers, and their own energy use.
 - **Heuristics when making decisions.** Because the assessment of all options may be time-consuming and costly, customers use heuristics, or rules of thumb, to make choices. While a useful shortcut to making quick decisions, heuristics can also lead to sub-optimal decisions. Customers may also place a disproportionate emphasis on information that is most easily accessible and assume that it is representative of the market.

Report, final report, AEMC, 4 December 2015, Sydney, <http://www.aemc.gov.au/Markets-Reviews-Advice/2015-Residential-Electricity-Price-Trends>.

¹⁹ Oxera, *Behavioural insights into Australian retail energy markets*, report to the AEMC, March 2016.

- **Time inconsistency.** Customers may place emphasis on short term discounts over long term savings.
- **Reference dependence.** Customer preferences may be affected by how choices are presented and customers reference points from past experience or expectations. The appraisal of different options can be affected by what is presented as a default or ‘standard’ option.
- **Loss aversion.** Customers place different values on gains and losses.
- **Salience and shrouding.** Customers are more interested in more salient products like mobile phones that they can interact with. Customers are also less responsive to prices or changes in prices that are not readily apparent. For example, customers may pay more attention to usage charges than service charge or vice versa.
- **Perceptions of risk and probability.** Customers can over or underweight the likelihood of a particular event occurring. Customers use these decision weights when assessing different options that may have some element of risk or uncertainty.
- **Status quo basis.** Some customers are biased towards maintaining their current status and tend not to search for alternatives.

Behavioural biases do not necessarily result in worse consumer outcomes. In many cases behavioural biases drive consumers to make prudent, cautious decisions. This is quite important since full deliberation takes effort and is time-consuming; it is simply not possible to do this for every decision. Individuals need to use heuristics for many decisions. In many circumstances decisions made by heuristics may actually be nearly as good or even the same as optimal decisions made by rational agents.

Ultimately, consumer behaviours and attitudes can assist to inform the need for policy responses and also what those policy responses may be. For example, the need for better awareness and engagement programs and how these may be structured and communicated so that they target the appropriate customer segments that may need additional support.

3.3 Impact of new products and services

The “traditional”, centralised energy supply model is being challenged by emerging technologies and new products and services, particularly for electricity. Many of these new products and services provide customers greater control over how their electricity is delivered and consumed. Some allow customers to cede control over how their electricity is delivered and consumed to third parties.

These developments have the potential to transform retail energy markets. They also create opportunities for retailers to innovate in the delivery of energy services and the ways customers use energy, to reduce costs and improve their customers’ outcomes.

As part of the 2016 review we looked at customer experiences and outcomes in relation to new products and services in retail energy markets. We considered:

- The role of innovation and information in competitive retail energy markets.
- Customers' current understanding and awareness of these products and services and their likely future uptake.
- The implications for customer outcomes.
- The implications for customer protections.

We obtained data for this analysis by incorporating additional questions in Newgate's customer survey and conducting qualitative research on customer awareness of and attitudes toward new products and services.

3.4 Vulnerable customers' experiences and outcomes in the market

Not all customers are willing or able to engage effectively in competitive markets. For some, this is a rational decision because they value their time more highly than the rewards of investigating and choosing a new energy deal. However, for others – such as those having difficulty paying their energy bills – there may be other reasons for not investigating their options and moving to a market offer that represents a better deal for them.

The results from the 2015 Newgate Research suggested the experience of vulnerable customers differs from other customers. It suggested that while vulnerable customers were more likely to be active, they were also more likely to be concerned about the potential for poor outcomes.

As part of the 2016 review, we investigated the experiences of and outcomes for vulnerable customers in retail energy markets in greater detail. In particular, we considered:

- The differences in experiences and outcomes for vulnerable customers compared with other customers.
- The causes of the disengagement of some vulnerable customers from retail energy markets, such that they do not investigate their options.
- The reasons why some vulnerable customers may investigate their options or consider investigating their options but fail to change to a deal that better suits their needs.
- What changes in the experiences of vulnerable customers may assist them to participate more effectively in competitive retail energy markets and access the best available offers.

We obtained data for this analysis by asking Newgate to incorporate additional questions in to its customer survey and conduct additional qualitative research on the vulnerable customer experiences.

4 Conclusions of state of competition by jurisdiction

As Chapter 3 discussed, to reach our conclusions on the current state of competition across jurisdictions, we assessed each geographic and product market against five competitive market indicators using evidence gathered up to early 2016. We then considered the findings for all indicators together, to assess whether the outcomes in each market are consistent with effective competition.

We concluded that:

- Competition continues to be effective in the South East Queensland, New South Wales, Victorian and South Australian retail electricity markets.
- Competition is also effective in the New South Wales, Victorian and South Australian retail gas markets.
- Competition continues to be less effective in the South East Queensland retail gas market and the Australian Capital Territory retail electricity and gas markets.
- Competition continues not to be effective in the regional Queensland and Tasmanian retail electricity and gas markets.

The sections below summarise our conclusions and key findings for each jurisdiction in more detail, and set out our recommendations for improving competition. Our findings, research and analysis on each competitive indicator are discussed in more detail in Chapters 7 - 11.

Note that in interpreting our conclusions and findings, two key contextual points must be kept in mind. First, competition is an evolving, dynamic process, and effective competition in a market does not necessarily develop smoothly (see Box 4.1). Second, the energy markets in jurisdictions are at different stages in this evolution, and have different characteristics that influence whether, how and how fast competition can develop (see section 2.1).

Box 4.1 Competition is an evolving, dynamic process

Markets are dynamic: conditions change as the cost of inputs and technologies change, demand levels vary, innovation occurs, firms enter and exit the market, and customer preferences change. As a result, the development of effectively competitive markets is a continuous, iterative process and does not necessarily happen smoothly.

The development of competition involves multiple stages which are driven by a combination of variables. These stages and their characteristics have been examined in economic literature over several decades.²⁰

²⁰ See for example, M Gort, S Klepper, 'Time Paths in the Diffusion of Product Innovations', *Economic Journal*, vol 92, 1982, pp. 630-653; S Klepper, 'Firm Survival and the Evolution of Oligopoly', *Rand Journal of Economics*, vol 33, no 1, 2002, pp. 37-61; B Jovanovic, G MacDonald, 'The Life Cycle of a Competitive Industry', *Journal of Political Economy*, vol 102, no 2, 1994, pp. 322-347; R Agarwal, BL Bayus, 'The Market Evolution and Sales Takeoff of Product Innovations', *Management Science*, vol 48, no 8, 2002, pp. 1024-1041; R Agarwal, M Gort, 'The Evolution of Markets and Entry, Exit and Survival of Firms', *The Review of Economics and Statistics*, vol 78, no 3, 1996, pp. 489-498 and R

Commonly, as a market opens up to competition, firms enter to compete with incumbents, and competition is price-based. This is particularly the case in energy markets, where there can be limited differentiation between the products and services offered.

Retailers will continue to enter and compete in a market if they expect to earn a profit and there are low barriers to entry. Where there is strong price-based competition, retailer profits will erode as prices move closer to costs. New and incumbent firms will attempt to increase profits by introducing innovations to reduce costs, or to improve the quality of products so that customers are willing to pay more. The erosion of profits may be short-lived, and may be reversed and then reversed again as the market evolves and innovates its way through the various stages of competition.

In the more advanced stages of market development, competitors innovate and differentiate their products to compete on more than prices. As the market matures, marketing practices will also mature and the initiative may increasingly shift from retailers approaching customers to customers approaching retailers.

Positive outcomes from competition depend on engaged customers as well as engaged suppliers. Customers who engage can drive better outcomes for themselves and the market overall by influencing the design of products and the level of service provided.

In practice, the different stages of competition mean that indicators used to determine the effectiveness of competition in a market can be ambiguous if considered in isolation. For example, a judgement based solely on the number of active market participants could misleadingly conclude that the level of competition is weak, despite the potentially more rapid pace of innovation and price reductions observed through other indicators.

Similarly, from time to time a market that exhibits effective competition may see increased profits, a reduced number of market participants, or reduced customer satisfaction. Rather than a failure of competition, this may reflect the evolving state of that market and the many variables that influence how it is developing.

4.1 South East Queensland

In South East Queensland, competition continues to be effective in the retail electricity market, and less effective in the smaller retail gas market.

Based on our findings for all competitive indicators together, the Commission considers there is sufficient competition in the South East Queensland electricity market to remove retail price regulation on 1 July 2016. Price deregulation is likely to promote further competition in the market to deliver innovation, a greater range of offers and competitive prices in South East Queensland. Following deregulation of electricity prices in New South Wales on 1 July 2014, there is evidence of new retailer entry, declines in market concentration and an expanded range of offers.

Agarwal, M Gort, 'Firm and Product Life Cycles and Firm Survival', *American Economic Review*, vol 92, no 2, 2002, pp. 184-190.

4.1.1 Retail electricity market

Full retail contestability was introduced in this market in 2007, and retail price deregulation takes effect on 1 July 2016. Eleven retailers compete for 1.4 million small customers.

Our findings on each indicator of competition are similar to the findings in the 2015 retail competition review. They include the following:

- **Customer activity:** Many customers are shopping around for energy (electricity or gas) deals. Twenty-six per cent of residential and 30 per cent of small business customers said they had actively investigated options in the last 12 months. The switching rate among small electricity customers remained steady at 16 per cent.
- **Customer outcomes:** Most customers are satisfied with their outcomes in the electricity market. Sixty per cent of residential customers said they were satisfied with the level of market choice, a substantial increase from 48 per cent in the 2015 survey. Seventy per cent said they were satisfied with their current retailer, an increase from 63 per cent in the 2015 survey, while seven per cent were dissatisfied.²¹ Complaints to the Ombudsman fell slightly and around 0.5 per cent of small customers made a complaint in 2014-15.
- **Barriers to entry, expansion or exit:** The 2016 retailer survey was conducted prior to the Queensland Government's decision that retail prices would be deregulated from 1 July 2016. On average, retailers rated the ease of entry and expansion in the South East Queensland market as moderate, though more difficult than in New South Wales and Victoria. Several retailers indicated they were waiting for price deregulation to take effect before committing to entry or expansion. Some continued to assert that undesirable wholesale market conditions caused by concentration of generation ownership, alleged strategic late rebidding by generators and interconnector constraints has negatively affected the ease of entry and expansion, with one characterising wholesale spot price volatility as extraordinary. One new retailer entered the market, and one entered a new retail brand, whilst two retailers indicated they had wound back operations in the last 12 months. Four retailers said they were considering entry in the next one to two years, five said they were considering expansion, and one said they were considering exiting.
- **Independent rivalry:** There are signs of independent rivalry between retailers. Market concentration, as measured by the Herfindahl-Hirschman Index (HHI), fell slightly, and second tier retailers increased their market share. Retailers rated the level of rivalry as moderate and below that of Victoria, New South Wales and South Australia. While new offers became available, the overall number of flat rate market offers on the market fell. Solar penetration in Queensland has reached around 25 per cent of households, which represents a significant segment of the market for retailers to tailor offers to.

²¹ Note that for all markets satisfied and dissatisfied customers do not total 100 per cent. The remaining customers responded that they were neither satisfied or dissatisfied or didn't know.

- **Competitive retail prices:** Customers who shop around can save more than 10 per cent on their electricity bills. The range of prices available for flat rate market offers is smaller than in other competitive markets. Standard offers with a regulated price yield median annual bills of \$1434 for a representative customer, while market offers can yield savings of up to \$140 (see section 11.2.1). The level of possible savings differs with energy consumption, discount eligibility and type of contract.

As new retailers and new offers enter the market, it will be important that customers have access to clear information to enable them to compare offers and decide which best suits their personal circumstances. While Queensland's adoption of the NECF on 1 July 2015 means the AER's Energy Made Easy website is now available in this market, only one per cent of South East Queensland customers knew about the website. Awareness of this website can be promoted further over the next 12 months.

4.1.2 Retail gas market

Full retail contestability was introduced and retail prices deregulated in the South East Queensland retail gas market in 2007. However, gas penetration rates are low, with only around 13 per cent of small electricity customers or a total of 188,000 customers connected. There are only two active retailers, AGL and Origin.

Our findings on each indicator of competition are similar to the findings in the 2015 retail competition review. They include the following:

- **Customer activity:** Most small customers were aware they can choose their gas retailer. Switching rates fell slightly to nine per cent, and were lower than in New South Wales, Victoria and South Australia.
- **Customer outcomes:** Satisfaction with gas retailers increased and was higher than for electricity retailers. Seventy-nine per cent of residential customers were satisfied with their gas retailer, an increase from 65 per cent in the 2015 survey, while six per cent were dissatisfied. Around 0.5 per cent of customers made a complaint to the Ombudsman in 2014-15.
- **Barriers to entry, expansion or exit:** On average, retailers considered the ease of entry and expansion to be moderate, similar to New South Wales, Victoria and South Australia. They most frequently mentioned the small size of the demand base, access to gas and the price of gas as impediments to entry and expansion. There was no new entry in 2015 but three retailers said they were considering entry in the next one to two years.
- **Independent rivalry:** There were no signs of strong rivalry between retailers. Only AGL and Origin are active in this market. Origin increased its market share over the last 12 months, increasing market concentration.
- **Competitive retail prices:** Only a few offers are available from each of the two major retailers. Standing offers for a customer in Brisbane yield an average annual bill of \$1107, while switching to a market offer can yield a saving of around ten per cent (see section 11.4.1). The level of possible savings will differ with energy consumption, discount eligibility and type of contract.

Competition continues to be less effective in the South East Queensland retail gas market, and the Commission does not expect the level of competition in the South East Queensland retail gas market to change significantly, due to the small size of the market and the tightening demand and supply conditions in the wholesale gas market. If additional retailers enter the retail electricity market some may choose to also offer gas so they can provide dual fuel offers.

4.2 Regional Queensland

In regional Queensland, competition continues not to be effective in both the electricity retail market and the retail gas market.

The means by which the UTP is implemented remains a significant barrier to entry in the retail electricity market. The Commission recommends this be reviewed, based on the advice of the QPC.²²

4.2.1 Retail electricity market

While full retail contestability was introduced in 2007, one retailer – Ergon Energy Retail – supplies electricity to almost all of regional Queensland retail electricity market, serving approximately 733,000 small electricity customers. Electricity prices remain regulated, and Ergon Energy Retail is not permitted to offer market contracts.

Our findings on each indicator of competition are similar to the findings in the 2015 retail competition review:

- **Customer activity:** Customers want a choice of retailers and energy plans. Fifty-nine per cent of residential customers and 72 per cent of small business customers rated the ability to choose their retailer as highly important.
- **Customer outcomes:** Customer satisfaction with the level of choice is lower than in all other electricity markets except Tasmania, with 42 per cent of residential customers dissatisfied and only 24 per cent satisfied. Satisfaction with electricity retailers is higher, with 57 per cent of residential customers satisfied and 16 per cent dissatisfied with their current retailer.
- **Barriers to entry, expansion or exit:** On average, retailers rated the ease of entry and expansion in regional Queensland as the most difficult of all NEM jurisdictions, along with Tasmania. The main impediment is the means by which the UTP is implemented (see section 2.1.1). This subsidy is provided to Ergon Energy Retail and is not available to other retailers, making it difficult for other retailers to enter the market at a competitive price. Four retailers indicated they may enter the retail electricity market in the next one to two years, though entry is only likely to occur if policy settings change. One retailer said it was considering exit.
- **Independent rivalry:** There is no rivalry for residential customers
- **Competitive retail prices:** There is no price-based competition.

²² The QPC's Electricity Pricing Inquiry final report, including recommendations on improving competition in regional Queensland was provided to the Queensland Government on 31 May 2016.

The Commission does not expect the level of competition in regional Queensland's retail electricity market to change significantly unless there are changes to the way the UTP is implemented.

4.2.2 Retail gas market

Full deregulation of Queensland's retail gas market occurred on 1 July 2007, and so regional areas are not subject to gas price regulation. There are only a relatively small number of gas customers that have access to reticulated gas across the Wide Bay-Burnett region, Gladstone and Rockhampton. Two retailers have offers available in one or more of these regions.

There are insufficient data available to comment on each of our indicators. Gas customers in regional Queensland were not surveyed as their small number makes it difficult to get a sufficient sample.

Retailers identified the main barriers to entry and expansion as the small size of the demand base, policy and regulatory risks, and access to and the price of gas. In addition, subsidies for retail electricity in the form of the UTP are a further impediment, because gas is a partial substitute for electricity. Nevertheless, one retailer stated that it was considering entry into the market.

The Commission does not expect a material improvement in the level of competition in regional Queensland's retail gas market due to its small size and tightening demand and supply conditions in the wholesale gas market.

4.3 New South Wales

In New South Wales, competition continues to be effective in the retail electricity market, with some signs of increasing competition since prices were deregulated last year. Competition is also effective in the retail gas market, though less intense than in the electricity market. An opportunity exists to increase competition in the gas sector through deregulation of retail gas prices, though ongoing monitoring of retail offers in some regional areas will be necessary.

4.3.1 Retail electricity market

In New South Wales, full retail contestability was introduced in 2002, and retail prices were deregulated on 1 July 2014. Six new retail brands entered the market in 2015 and 22 retailers now actively compete for 3.42 million small customers in the market.

Our findings for each indicator of competition are similar to the findings in the 2015 retail competition review. They include the following:

- **Customer activity:** Many customers are shopping around for energy (electricity or gas) deals. Thirty-two per cent of residential and 28 per cent of small business customers said they had actively investigated options in the last 12 months, and the switching rate increased from 15 to 17 per cent.
- **Customer outcomes:** Most customers are satisfied with their market outcomes. Sixty-two per cent of residential customers said they were satisfied with the level of market choice, a substantial increase from 48 per cent in the 2014 survey.

Seventy-three per cent were satisfied with their current electricity retailer, similar to the 2015 result of 74 per cent, while seven per cent were dissatisfied. Complaints to the Ombudsman fell slightly, with around 0.9 per cent of small customers making a complaint in 2014-15.

- **Barriers to entry, expansion or exit:** Six new retailers entered this market in 2015. On average, retailers considered entry and expansion in New South Wales easier than in all other jurisdictions except Victoria. Access to hedging products was the most frequently mentioned impediment. Several said the removal of retail price regulation had lowered barriers to entry. One retailer said it was considering entry in the next one to two years, and five said they were considering expansion. A number noted that New South Wales is increasingly seen as an attractive market for new retailers to enter.
- **Independent rivalry:** There are signs of independent rivalry between retailers. The big three retailers held 91 per cent of the retail electricity market share in December 2015, a decrease from 94 per cent in 2014 and 99 per cent in 2010. Second tier retailers increased their market share. Market concentration, as measured by the HHI score, fell. Retailers rated the level of price and non-price rivalry as high. New offers became available and the overall number of flat rate market offers increased.
- **Competitive retail prices:** Customers who shop around can save up to 20 per cent on their electricity bills. For a representative customer in the Ausgrid supply area, standing offers yield a median annual bill of \$1308 while market offers can provide annual savings of up to \$256 (see section 11.2.2). The level of possible savings will differ with energy consumption, discount eligibility and type of contract.

The Commission expects that the full impact of deregulating retail electricity prices on competition is likely to become more evident over the long term, as it will take time for retailers and customers to respond to new opportunities.

4.3.2 Retail gas market

New South Wales' retail gas market became fully contestable in 2002, and is the only gas market where retail price regulation remains in place. Across the market, six retailers compete for 1.27 million small customers, but in some regional areas only one retailer is operating.

The New South Wales Government has announced it is looking to deregulate retail gas prices across the state from 1 July 2017 if certain conditions are met.²³ These conditions include an increase in the level of competitive offers available to customers in regional New South Wales.

Based on our findings for all competitive indicators together, the Commission considers there is sufficient competition in the New South Wales retail gas market for customers to benefit from the removal of retail price regulation from 1 July 2017. Price

²³ See Department of Industry, Resources and Energy 2016, New South Wales Government, Sydney, viewed 20 June 2016, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/consumer-assistance/retail-gas-prices-the-way-forward>.

deregulation would remove a barrier to entry and expansion in the New South Wales retail gas market in both urban and regional areas. It is likely to promote further competition in the market to deliver innovation, a greater range of offers and competitive prices.

Our key findings for each indicator of competition include:

- **Customer activity:** Eighty-eight per cent of customers were aware they can choose their gas retailer. Switching rates increased from 12 per cent in the 2015 survey to 14 per cent in the 2016 survey.
- **Customer outcomes:** Seventy per cent of residential customers were satisfied with their gas retailer, down from 79 per cent in the 2015 survey, and eight per cent were dissatisfied. Around 0.7 per cent of small customers made a complaint to the Ombudsman in 2014-15, an increase from 0.6 per cent in 2013-14.
- **Barriers to entry, expansion or exit:** One retailer entered the New South Wales gas market in 2015, and an existing retailer introduced a new brand. On average, retailers considered the ease of entry and expansion in New South Wales to be moderate, and similar to South East Queensland, Victoria and South Australia. Retailers frequently mentioned access to and the price of gas and transmission capacity as impediments. One retailer said it was considering entry in the next one to two years, and one said it was considering expansion. One retailer said it was considering entry into the market in major regional centres.
- **Independent rivalry:** There are some signs of rivalry between retailers, though rivalry is less intense than in the New South Wales retail electricity market. While still high, the market concentration, as measured by the HHI score, decreased as second tier and other big three retailers gained market share from AGL. Second tier retailers increased their share from one per cent in 2014 to three per cent in 2015.
- **Competitive retail prices:** There are considerable discounts available to customers who shop around, and who switch from regulated offers to market offers. Regulated offers yield an average annual bill of \$879 for a representative customer in the Jemena Coastal Supply Area (the largest supply area, which contains Sydney). Such a customer could typically achieve a saving of 11 per cent by switching to a market offer (see section 11.4.2). The level of possible savings will differ with energy consumption, discount eligibility and type of contract.

Competition in regional New South Wales

As noted above, price deregulation would remove a barrier to entry and expansion in regional areas. One retailer already indicated in our February retailer survey that it intends to enter major regional centres in the next one to two years.

The New South Wales Government, AEMO and ACCC (as well as the AEMC) have also been undertaking work which can address additional barriers to entry and expansion in regional New South Wales.

There is less currently competition in certain areas of regional New South Wales. For example, while in Sydney there are seven gas retailers, there are only one or two gas

retailers in some regional towns.²⁴ Retailers face specific additional barriers to entry and expansion in regional areas of the state. This is discussed further in Chapter 9, Box 9.3.

The Commission notes that the small customer base in regional New South Wales may prevent price deregulation from having as significant an impact in regional New South Wales as it is likely to have in urban New South Wales. However, the Commission still expects that price deregulation will reduce barriers to entry in the region and, in conjunction with the work being done to address additional barriers, will benefit customers.

The Commission additionally supports ongoing monitoring of retailers' offers by IPART after the introduction of price deregulation to assess if suitable offers continue to be available to customers in regional areas.

4.4 Australian Capital Territory

In the Australian Capital Territory, there continues to be signs that competition may be increasing in the retail electricity market, although effective competition is yet to emerge. There is also limited competition in the retail gas market.

The AEMC made recommendations for improving competition in its 2011 Review of the effectiveness of competition in the electricity retail market in the Australian Capital Territory.²⁵

4.4.1 Retail electricity market

The Australian Capital Territory retail electricity market is the smallest in the NEM with approximately 180,000 customers. Full retail contestability was introduced in 2003, but retail price regulation remains in place.

Our key findings for each indicator of competition include:

- **Customer activity:** The proportion of customers investigating energy offers has increased substantially over the last two years, from 10 to 23 per cent. The switching rate among small electricity customers also increased from 1.5 to 4.3 per cent, but remains much lower than other jurisdictions.
- **Customer outcomes:** Satisfaction with electricity retailers and the retail market improved from the 2015 to the 2016 reviews. Forty-seven per cent of residential customers were satisfied with their level of market choice, a substantial increase from 34 per cent in the 2015 survey. Seventy-three per cent were satisfied with their current retailer, while 11 per cent were dissatisfied.
- **Barriers to entry, exit and expansion:** No new retailers entered the retail electricity market in 2015. Overall, retailers considered entry and expansion to be difficult and harder than in most jurisdictions. The most frequently mentioned

²⁴ In towns such as Temora, Gundagai, Wagga Wagga and Tamworth, for example, there is only one retailer servicing the area. See IPART, *Review of regulated retail prices and charges for gas from 1 July 2016*, final report, June 2016, p.29.

²⁵ AEMC, *Review of the effectiveness of competition in the electricity retail market in the Australian Capital Territory*, Stage 2 final report, 3 March 2011, Sydney.

impediments to entry included retail price regulation, policy and regulatory risk, and the dominance of the incumbent retailer, ActewAGL. Two retailers said they were considering entry in the next one to two years, and two said they were considering expansion.

- **Independent rivalry:** While ActewAGL still dominates the market with around 93 per cent market share, other retailers increased their market share in 2015 and market concentration, as measured by the HHI score, fell somewhat. Retailers rated the level of price and non-price rivalry as moderate and lower than many other jurisdictions.
- **Competitive retail prices:** In March 2016, there were 12 flat rate market offers and six standing offers available. Seventy-six per cent of Australian Capital Territory customers are on a standing offer with a regulated price. For a representative customer, standing offers result in an average annual bill of \$1415 while market offers can yield a saving of eight per cent (see section 11.2.4). The level of possible savings will differ with energy consumption, discount eligibility and type of contract.

4.4.2 Retail gas market

The Australian Capital Territory's retail gas market is the second smallest in the NEM behind Tasmania's, and has approximately 137,000 customers. Full retail contestability was introduced and retail prices deregulated in 2003. While the big three retailers are operating in the retail gas market, the incumbent, ActewAGL, holds 94 per cent of this market as at December 2015.

Our key findings for each indicator include:

- **Customer activity:** Only 47 per cent of residential customers are aware they can choose their gas retailer. AER switching data is not available for the Australian Capital Territory gas market, but our customer survey suggests it was a low two per cent in the last 12 months
- **Customer outcomes:** Sixty-six per cent of residential customers were satisfied with their current retailer, while 12 per cent were dissatisfied.
- **Barriers to entry, exit and expansion:** No new retailers entered the Australian Capital Territory retail gas market in 2015. On average, retailers considered the ease of entry and expansion in this market to be moderate, though more difficult than the larger jurisdictions. The main impediments to entry noted by retailers were the small size of the demand base, access to gas and the price of gas. One retailer said it was considering entry in the next one to two years.
- **Independent rivalry:** ActewAGL still dominates the market with around 94 per cent market share, however other retailers increased their market share in 2015 and market concentration, as measured by the HHI score, fell somewhat.
- **Competitive retail prices:** There are only three retail gas offers available in the Australian Capital Territory: two standing offers and one market offer (see section 11.4.4). Although customers can achieve a discount of 11 per cent by switching to

the market offer, the lack of a choice of market offers suggests that competition is not effective in the Australian Capital Territory gas market.

The Commission does not expect a material improvement in the level of competition in the Australian Capital Territory retail gas market soon, due to its small size and tightening demand and supply conditions in the wholesale gas market. However, if competition increases in New South Wales this may flow on to the Australian Capital Territory.

4.5 Victoria

In Victoria, competition continues to be effective in the retail electricity market. Competition is also effective in the retail gas market, and stronger than in other jurisdictions.

4.5.1 Retail electricity market

Victoria was the first jurisdiction to introduce full retail contestability alongside New South Wales in 2002, and was the first to deregulate prices in 2009. Twenty-two retailers compete for a share of its 2.7 million retail electricity customers.

Our findings for each indicator of competition are similar to the findings in the 2015 retail competition review. They include the following:

- **Customer activity:** Many customers are shopping around for energy (electricity or gas) deals, with 32 per cent of residential and 39 per cent of small business customers reporting they had actively investigated their options in the last 12 months. The proportion of residential customers investigating offers decreased from 39 per cent in 2014. The switching rate among small electricity customers decreased from 27 to 25 per cent between the 2015 and 2016 survey.
- **Customer outcomes:** Satisfaction with outcomes remains high. Sixty-nine per cent of residential customers were satisfied with the level of market choice, and 73 per cent were satisfied with their current retailer, substantial increases from 57 and 64 per cent in the 2014 survey. Seven per cent of residential customers were dissatisfied with their retailer. Complaints to the Ombudsman fell, with around 1.6 per cent of small customers making a complaint in 2014-15.
- **Barriers to entry, expansion or exit:** Five retailers entered the Victorian retail electricity market in 2015. On average, retailers considered entry and expansion in Victoria easier than other jurisdictions. Policy and regulatory risks were most frequently mentioned as impediments to entry or expansion. One retailer said it was considering entry in the next one to two years, and five said they were considering expansion.
- **Independent rivalry:** There are strong signs of independent rivalry between retailers. The combined market share of second tier retailers increased to 37 per cent and market concentration decreased with the HHI score falling to 1679. This is by far the lowest HHI score of all retail electricity markets in NEM jurisdictions, and is the only score below 2000. Retailers rated the level of price and non-price rivalry as very high. New offers became available and the overall number of flat rate market offers increased

- **Competitive retail prices:** Customers who shop around can save more than 30 per cent on their electricity bills. For a representative customer in the Citipower Supply area, standing offers yield an annual median bill of \$1240, while market offers can yield discounts of up to \$383 (see section 11.2.5). The level of possible savings will differ with energy consumption, discount eligibility and type of contract. Only 10 per cent of customers remain on standing offers.

4.5.2 Retail gas market

Victoria's retail gas market became fully contestable in 2003 and prices were deregulated in 2009. Across this market, nine retailers are competing for 1.9 million customers. The level of competition varies depending on location, and in some small regional areas, there is just one gas retailer operating.

Our key findings for each indicator of competition include:

- **Customer activity:** Ninety-three per cent of customers were aware they can choose their gas retailer. Switching rates were the highest of the jurisdictions at 22 per cent, though they decreased from 29 per cent in the 2015 survey.
- **Customer outcomes:** Seventy-four per cent of residential customers were satisfied with their gas retailer – a decrease from 70 per cent in 2015 – and eight per cent were dissatisfied. Around 0.8 per cent of small gas customers made a complaint to the ombudsman in 2014-15, a decrease from 1.4 per cent in 2013-14.
- **Barriers to entry, expansion or exit:** On average, retailers considered the ease of entry and expansion in Victoria to be moderate, though slightly more difficult than in South East Queensland, South Australia and New South Wales. They frequently mentioned state-based licensing requirements, access to gas and the price of gas as impediments. No new entry occurred in 2015 but one retailer said it was considering entry in the next one to two years, and two said they were considering expansion.
- **Independent rivalry:** There are signs of independent rivalry between gas retailers in Victoria. The combined market share of second tier retailers increased to 28 per cent, and market concentration decreased with the HHI score falling to 2050. This is by far the lowest HHI score of all retail gas markets in all NEM jurisdictions.
- **Competitive retail prices:** Our analysis shows that bills for a representative customer in the Melbourne metropolitan area vary greatly depending on the offer they select, and that customers can achieve substantial discounts by switching from standard to market offers. We also found there are two distinct groups of standing offers. The first group yields annual bills ranging from \$575 to \$625 and are offered by second tier retailers. The second group yields bills from \$700 to \$750 and are offered by the big three retailers. This finding indicates that customers may benefit from switching to one of the lower cost retailer offer. The level of possible savings will differ with energy consumption, discount eligibility and type of contract. See section 11.4.5 for more detail.

4.6 South Australia

In South Australia, competition continues to be effective in the retail electricity market. Competition also continues to be effective in the retail gas market, though less intense than in the retail electricity market.

4.6.1 Retail electricity market

South Australia introduced full retail contestability in 2003 and removed retail price regulation in 2013. Fifteen retailers are competing for a share of its 850,000 retail electricity customers. Our findings for each indicator of competition were similar to those in the 2015 retail competition review. They include the following:

- **Customer activity:** Many customers are shopping around for energy (electricity or gas) deals. Twenty-six per cent of residential and 36 per cent of small business customers said they had actively investigated options in the last 12 months. The switching rate was 15 per cent, a decrease from 16 per cent in the 2015 survey.
- **Customer outcomes:** Sixty-five per cent of residential customers were satisfied with their level of market choice, a substantial increase from 56 per cent in the 2014 survey. Three-quarters were satisfied with their current retailers, an increase from 66 per cent in the 2014 survey, and seven per cent were dissatisfied. Complaints to the Ombudsman fell, with around 0.7 per cent of small customers making a complaint in 2014-15.
- **Barriers to entry, expansion or exit:** Two new retailers entered the market in 2015. On average, retailers considered the ease of entry and expansion to be moderate though less easy than in New South Wales and Victoria. They frequently mentioned wholesale market conditions accompanied by limited access to competitively priced hedging products as an impediment to entry and expansion. Four retailers said they were considering expansion in the next one to two years and one was considering exit.
- **Independent rivalry:** There are signs of independent rivalry between retailers. While the big three retailers held 79 per cent of the retail electricity market share in December 2015, their share has decreased from 86 per cent in 2010 and the market share of second tier retailers has grown. Market concentration, as measured by the HHI score, has fallen and is the third lowest in the NEM behind Victoria and New South Wales. Retailers rated the level of price and non-price rivalry as high. Solar penetration in South Australia has reached around 25 per cent of households, which represents a significant segment of the market for retailers to tailor offers to.
- **Competitive retail prices:** Customers who shop around can save up to 18 per cent on their electricity bills. For a representative customer, standing offers had a median annual bill of \$1712, while market offers can yield a saving of up to \$312 (see section 11.2.3). The level of possible savings will differ with energy consumption, discount eligibility and type of contract. Nevertheless, 15 per cent of customers in South Australia still remain on a standing offer.

4.6.2 Retail gas market

Full retail contestability was introduced in 2004 and retail prices were deregulated in 2013. Five retailers are competing for 439,000 customers.

Our key findings for each indicator of competition include:

- **Customer activity:** Ninety-two per cent of customers were aware they could choose their gas retailer. The switching rate decreased to 13 per cent from 17 per cent in 2014.
- **Customer outcomes:** Seventy-three per cent of residential customers were satisfied with their gas retailer, an increase from 69 per cent in the 2015 survey, while eight per cent were dissatisfied. Around 0.3 per cent of small customers made a complaint to the Ombudsman in 2014-15.
- **Barriers to entry, expansion or exit:** On average, retailers considered the ease of entry and expansion in the South Australia gas market to be moderate, similar to the South East Queensland, Victoria and New South Wales markets. They frequently mentioned access to and the price of gas and transmission capacity as impediments to entry and expansion. One retailer said it was considering entry in the next one to two years, and one said it was considering expansion.
- **Independent rivalry:** There are some signs of rivalry between retailers though rivalry is less intense than in the state's electricity market. Market concentration, as measured by the HHI score, fell slightly and second tier retailers increased their share from 10 per cent in 2014 to 12 per cent in 2015.
- **Competitive retail prices:** There are considerable discounts available to customers who shop around, and who switch from standing to market offers. Standing offers yield an average annual bill for a customer in the AGN Metro area (which contains Adelaide) of \$1113 (see section 11.4.3). Switching to a market offer typically yields a saving of nine per cent. The level of possible savings will differ with energy consumption, discount eligibility and type of contract.

4.7 Tasmania

In Tasmania, competition continues not to be effective in both the retail electricity market and the retail gas market.

4.7.1 Retail electricity market

Tasmania introduced full retail contestability in 2014 but retail price regulation remains in place. Aurora Energy continues to be the only choice for residential electricity customers, while ERM Power offers a second option for small business customers.

Our findings for each indicator of competition are similar to the findings in the 2015 review:

- **Customer activity:** While 79 per cent of residential customers were aware they could not choose their electricity retailer, only 24 per cent of small businesses were aware they could choose their electricity retailer. Customers want a choice of

companies: 59 per cent of residential customers and 55 per cent of small business customers rated this as highly important.

- **Customer outcomes:** Only 23 per cent of residential customers were satisfied with the level of market choice in Tasmania. Sixty-five per cent were satisfied with their current retailer, an increase from 60 per cent in 2015, and 12 per cent were dissatisfied. Complaints to the Ombudsman decreased, with around 0.1 per cent of small customers making a complaint in 2014-15.
- **Barriers to entry, expansion or exit:** On average, retailers considered entry and expansion in Tasmania to be the most difficult of all jurisdictions except regional Queensland. They identified significant impediments including the structure and size of the wholesale market and price regulation. However, one retailer indicated that it was considering entry in the next one to two years.
- **Independent rivalry:** There was no rivalry for residential customers and very limited rivalry for small business customers. ERM Power has gained a small share of the small business market, reducing Aurora's market share to just below 100 per cent.
- **Competitive retail prices:** There is no price-based competition for residential customers.

4.7.2 Retail gas market

Full retail contestability and deregulated retail prices have been in place since reticulated gas became available in 2007. However, gas penetration remains low and the Tasmanian gas market is the smallest among the jurisdictions. Only two gas retailers supply a customer base of 10,900.

Insufficient data is available to comment on each of our indicators. Gas customers in Tasmania were not surveyed as their small number makes it difficult to get a sufficient sample.

On average, retailers considered ease of entry in this market as the most difficult of all jurisdictions. They frequently mentioned the small size of the demand base, the price of transmission capacity and the price of gas as impediments to entry and expansion. No retailers were considering entering the market.

The Commission does not expect a material improvement in the level of competition due to the small size of the retail market and tightening demand and supply conditions in the wholesale gas market.

4.8 Recommendations

The Commission has made recommendations for consideration by jurisdictions that seek to improve customer outcomes and promote competition in retail energy markets. Many of these recommendations have been made in previous competition reviews and remain important to address. We recommend that:

- 1. Jurisdictions continue to phase out retail price regulation for electricity and natural gas where effective retail competition can be demonstrated, as agreed under the AEMA.**

Based on our findings for all competitive indicators together, the Commission considers there is sufficient competition in the South East Queensland electricity to remove retail price regulation on 1 July 2016.

The Commission also considers there is sufficient competition in the New South Wales retail gas market for customers to remove retail price regulation from 1 July 2017.

Price deregulation is likely to promote further competition in these markets to deliver innovation, greater choice and competitive prices. Following deregulation of electricity prices in New South Wales on 1 July 2014 there is evidence of new retailer entry, declines in market concentration and an expanded range of offers.

Given the nature of regional gas markets in New South Wales, ongoing monitoring of retailers' offers by IPART after the introduction of price deregulation will be important to assess if suitable offers continue to be available to customers in regional areas.

- 2. Jurisdictions coordinate the development of NEM-wide awareness and engagement programs to make it easier for customers to access the best options for their circumstances and improve customer confidence in the energy markets.**

Taking into account the different customer experiences, behaviours and attitudes, the Commission considers there is still an overwhelming need for a strategic and coordinated approach to enhance customers' awareness of energy use and costs, and the tools available to assist them to access competitive market offers and investigate new products and services.

The 2014, 2015 and 2016 retail competition reviews have all highlighted the low customer awareness of the availability of the government-run comparator websites that can assist customers to find a suitable energy plan. Our customer research, published with this report, demonstrates that those used these websites to investigate their options were significantly more aware of the choices available to them and also more confident they could find the right information to choose a suitable energy plan.

Our analysis found that customers could make significant savings by simply comparing offers and switching to a better one.

Insights from behavioural economics (see Box 3.1) can assist in the development of effective awareness and engagement programs to improve customer outcomes. Different types of communications can be tested by jurisdictions through experiments and field trials so that they are effective at reaching the appropriate audience and achieving changes in customer activity.

We recommend that jurisdictions implement coordinated awareness and engagement programs to:

- raise customer awareness of the government-run comparison websites;
- increase customer understanding of the link between energy use and costs, the benefits of shopping around regularly, and the concessions and support services available;
- inform customers of the benefits and costs of new products and services to enable them to make informed decisions (see Chapter 5);
- tailor communications to different audiences as set out in the AEMC's consumer engagement blueprint; and
- target vulnerable customers who are not engaged with the energy market or support services (see Chapter 6).

Assistance with the development of jurisdictional awareness and engagement programs could be provided by the AEMC, drawing on external expertise, and could build on the existing AEMC consumer engagement blueprint.

3. Jurisdictions review concession policies to assess opportunities to better target them to customers most in need and to harmonise their structure across jurisdictions, where substantive differences exist.

Our customer research suggests that some customers who may be eligible for concessions are not aware of them and that some customers who are particularly vulnerable may not be eligible for them or are too embarrassed about their financial situation to seek them out.

In addition, our retailer surveys found that some retailers consider differences between concessions regimes across jurisdictions as impediments to entering energy markets. Jurisdictional differences increase the compliance burden for retailers required to administer these programs across multiple jurisdictions. This can reduce customers' choice of retailers, as often it is the smaller retailers without sophisticated systems and large compliance teams who are most affected, restricting their ability to compete. Greater consistency in the mechanisms for delivering concessions (as distinct from the level of concessions) across jurisdictions would reduce this burden.

4. Jurisdictions continue to harmonise regulatory arrangements to reduce the long-term costs of new businesses or retailers competing across jurisdictions.

Our research suggests that harmonising regulatory arrangements across jurisdictions can reduce costs for retailers and customers, and encourage improvements in products and services to disseminate more rapidly.

Our research on new and emerging technologies found that many customers find new technologies appealing but there are significant gaps in information about what these technologies mean for them. This may indicate a need to build customer confidence, knowledge and understanding to improve customer outcomes.

As customers are offered an increasing number of new products and energy services there is a need to consider how consumer protection frameworks should evolve. Our recommendations from the 2015 strategic priorities remain relevant, which are that:

- The AEMC and Energy Consumers Australia (ECA) work alongside the Energy Council to determine how the energy consumer protections framework needs to evolve.
- The Energy Council successfully complete its current review of the NECF²⁶ in light of the changing business models facilitated by technological change and existing Australian Consumer Law protections.

²⁶ For more information see Standing Council on Energy and Resources, Canberra, viewed 20 June 2016, <http://www.scer.gov.au/sites/prod.energycouncil/files/publications/documents/Council-Implementation-Plan-July-20151.pdf>.

5 New and emerging technologies and services

New and emerging energy technologies and services such as rooftop solar panels, battery storage and smart meters have attracted an increasing amount of attention in recent years. These technologies are enabling the development of new energy product and services, which are changing customers' experience and outcomes and creating new opportunities for businesses to compete to provide these energy services.

For the 2016 review, we considered:

- the role of innovation and information in competitive retail energy markets;
- customers' current understanding and awareness of new and emerging energy products and services; and
- the potential implications of these new products and services for customer outcomes and for energy-specific customer protections.

To inform our analysis, we commissioned Newgate to undertake additional qualitative customer research to understand customers' knowledge and experiences of new and emerging technologies and services.²⁷ We also considered the outcomes of the 2016 customer and retailer surveys.

This chapter outlines our main findings, and then discusses our analysis and findings on each of these aspects in more detail.

5.1 Main findings on new and emerging technologies and services

Innovation is an important aspect of the competitive process as it leads to new and more diverse products and services. Innovation in new technologies and services in Australia is creating new opportunities for "traditional" retailers and other energy service providers. They are now competing to provide a range of new energy services that provide customers greater control about how they manage or use their electricity.

Information also plays an important role in the competitive process. Customer and market outcomes can be improved when customers are able to make informed decisions about whether or not to take up new offerings. Newgate's qualitative research found that while some customers find some of the new technologies and services appealing, there are significant gaps in information about what these technologies mean for them. This may indicate a need to build customer confidence, knowledge and understanding to improve customer outcomes.

Where customers do not have appropriate information on which to make informed decisions, they may be exposed to certain risks. For instance, customers may not get the value from the product or service that they expected. They may also miss opportunities to capture the value that the products and services may provide to them.

In addition, customers may not be aware that they are not covered by the full range of customer protections that they may expect when engaging in the retail energy market.

²⁷ Newgate Research, *New and Emerging Energy Technologies and Services Customer Research*, report to the AEMC, June 2016.

While the protections under Australian Consumer Law (ACL) apply generally,²⁸ “traditional” energy retailers are required to provide energy customers with the full range of customer protections under the NECF (or the Victorian Energy Retail Code), but energy service providers may not. This could mean, for example, that customers may not be provided with the same types of information nor have the same avenues for dispute resolution. As a result, customers taking up these new products and services may not be aware of the consumer protections that apply to them.

Our customer research highlights that clear information about the features, benefits and costs of products and services should be readily available. This would assist customers to make informed choices in this growing segment of the energy market. Businesses and governments have roles to play to make sure that there is clear and simple information available.

The research suggests that there is an important role for industry to address these knowledge gaps, as it is ultimately in their interest to do so. Improving customers’ access to appropriate information can assist customers to make informed judgments about whether the offers can provide value to them.

The findings also suggest that governments have a role to consider how consumer protection frameworks should evolve for customers who purchase emerging energy technologies and appropriate services.

5.2 Role of innovation and information in competitive retail markets

Innovation in new technologies and services and customer access to appropriate information about their features, benefits and costs are both core components of the competitive market process, and their interaction is central to delivering outcomes for customers. For instance, while innovation in new technologies and services may be driving the creation of new and advanced products and services, customers may be unaware or misinformed of their costs and benefits.

This section discusses the roles of innovation and information in customer outcomes.

5.2.1 Innovation in competitive retail markets

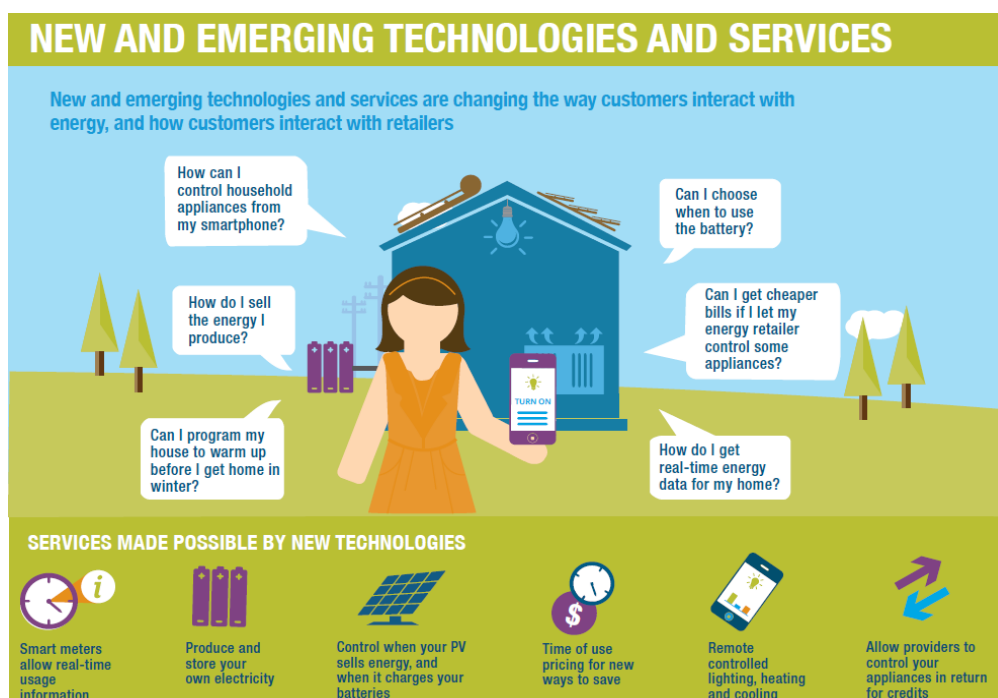
In a competitive market process, firms generally seek to maximise profits by either lowering costs or increasing revenue. Innovation is a key part of this competitive process. It can take many forms, including innovation in business models and processes to reduce costs, and in the development and evolution of products and services to increase revenue. Competitive markets are also an important precondition for customer preferences to drive the innovation required to develop new products and services for customers who value them.

²⁸ The NECF and Victorian Energy Retail Code are in addition to the ACL. The ACL offers protections for consumers in the areas of consumer rights when buying goods and services; product safety; unsolicited consumer agreements including direct marketing, unfair contract terms law (covering standard form consumer), and consumer redress options amongst others. The ACL prohibits misleading, deceptive and unconscionable conduct. See Australian Consumer Law 2016, viewed 20 June 2016, <http://consumerlaw.gov.au/>.

Currently in Australia, enabling technologies are influencing structural changes in the electricity markets through the new business models that they enable. New retail energy service providers have developed (or are developing) different business models that extend beyond simply the essential service supplying of electricity. These new technologies and services are changing (or have potential to change) the way customers participate in energy markets and give them new options to control their energy use and energy costs (see Figure 5.1). For example, customers can:

- **install rooftop solar photovoltaic** panels or other technologies such as small-scale wind turbines to produce electricity and either consume the energy themselves, or sell it back into the grid;
- **enter into a leasing arrangement or power purchase agreement** to install solar panels and purchase the electricity produced at lower than retail cost;
- **access usage information using online portals** allowing them to manage their energy consumption in real time, or alter their behaviour in response to what the information reveals;
- **install batteries** that either store electricity produced their solar panels, or draw electricity from the grid when it is cheaper, which they can then use later when it would be more expensive to draw it from the grid;
- **install advanced meters** to access a range of new electricity services and pricing options that give them more control over their energy use;
- **install internet enabled home automation devices** to better manage their energy usage;
- **enter into agreements that allow energy companies to remotely control selected customer appliances** in exchange for credits or reduced energy bills; and
- **enter into service arrangements with energy companies** to provide energy efficiency information or other services such as cleaning solar panels.

Figure 5.1 New and emerging technologies and services in the home



Innovative technologies and services are also influencing the competitive pressures in retail electricity markets. As well as “traditional” retailers competing with each other to sell electricity, they now also compete with energy service providers to sell a range of energy products and services.

This new source of competitive pressure arising from new technologies and energy service providers has required “traditional” retailers to change their retail business strategies to compete in an evolving market and manage new risks. Retailers typically managed the energy supply chain costs for customers, including wholesale market costs and packaging network charges. Many of the new technologies and services, for example, distributed generation installed in households, are reducing customers' reliance on energy sourced from the wholesale market.

Box 5.1 New technologies and services and their market size

Advanced meters

The installation of advanced metering technology at a customer’s premises allows retailers to offer them a wider range of electricity services and pricing options that give them new ways to monitor, manage and adjust their electricity consumption in response to usage information and price signals. For example, these include access to detailed usage data and real-time consumption information and different pricing structures that can create incentives for customers to manage their energy use, and the ability to compare retailers and switch offers faster.

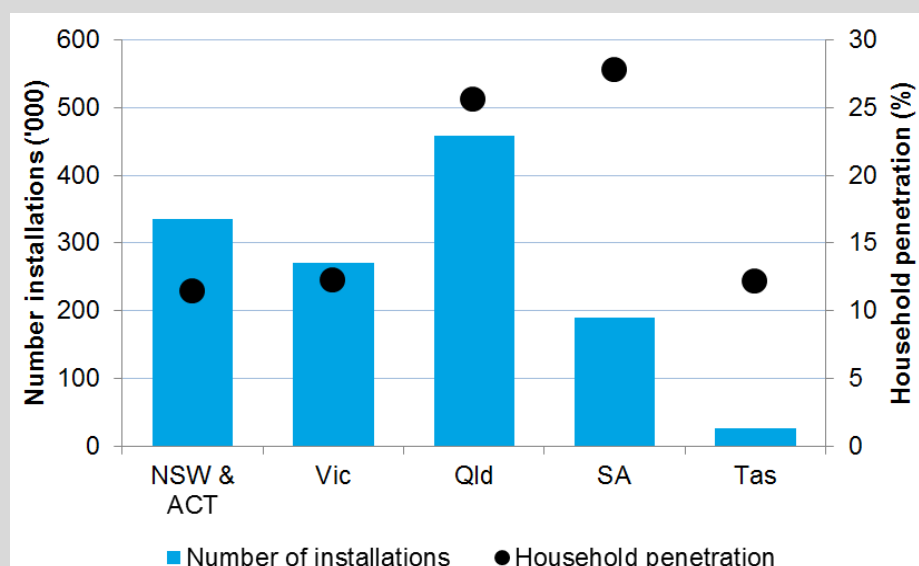
Smart meters have near 100 per cent penetration in Victoria, due to the government’s mandated 2006 roll out of the Advanced Metering Infrastructure program. In other markets across the NEM, penetration is lower as advanced meters have been installed in households on a voluntary basis.

The AEMC's recent 'Expanding competition in metering and related service' rule opens up the metering services market to competition. It also requires that, from 1 December 2017, any new metering installation at a small customer premises must, at a minimum, support a range of specified services.²⁹ While the rule change is not yet in effect, the AEMC understands that some market participants are already installing metering infrastructure in anticipation of this rule.

Solar Photovoltaic (PV) panels

The market for small-scale rooftop solar PV panels is the most mature of the emerging technologies. Initially spurred by government policies, installations have grown rapidly over the last six years, and the cost of panels has fallen significantly. Currently, 17 per cent of residential households in Australia have installed solar PV, which is the highest penetration rate in the world.³⁰ In some states, including South Australia and Queensland, the penetration is even higher.

Figure 5.2 Small-scale solar PV installations and penetration across Australia



Source: Clean Energy Regulator, as at 31 October 2015

Battery storage

Energy storage batteries have the potential to greatly expand customers' choices to manage their energy needs.

The AEMC has undertaken preliminary work to better understand the economic, regulatory and technical challenges associated with greater penetration of energy storage technologies.

²⁹ See AEMC, *Expanding competition in metering and related services*, rule determination, AEMC, 26 November 2015, Sydney, <http://www.aemc.gov.au/Rule-Changes/Expanding-competition-in-metering-and-related-serv>.

³⁰ The Office of the Chief Economist at the Department of Industry, Innovation and Science analysis found that the penetration rate is 17 per cent as at October 2015, while the Energy Supply Association of Australia (now known as the Australian Energy Council) previously found this to be around 15 per cent, and that this represented the largest rooftop solar PV penetration rate globally.

We engaged the CSIRO to inform this process to inform our understanding of the scale and scope of the impact that storage technologies may have in the energy sector.³¹

Advances in the technical maturity, supply chain, and manufacturing of small-scale chemical batteries are significantly reducing the costs of batteries. The CSIRO considers that these energy storage technologies are likely to secure meaningful uptake in the Australian electricity system over the next 15 years.³² The retail market for energy storage batteries is still at an early stage, but a number of energy businesses have already entered the market and begun installing batteries in customer homes.

Customer protections and new and emerging technologies and services

While new technologies and services are enabling customer choices and promoting competition in the market, the consumer protections that apply may not be clear to customers, which can lead to poor market and customer outcomes.

The NECF and supporting regulations provides a framework of energy specific consumer protections and obligations for regulating the sale and supply of electricity and gas to customers. The NECF is in addition to the general cover of ACL. Depending on specific arrangements and how they are offered, some new energy products and services do not attract the full suite of NECF protections but would still fall under the ACL.

Customers engaging with this market may not be aware that some businesses are not required to provide full energy specific customer protections under the NECF. For example, where an issue arises and a customer seeks to resolve it, they may not have access to the avenues for dispute resolution that other energy customers can access.

Box 5.2 The Exempted seller framework

The National Energy Retail Law and the National Electricity Rules (NERL and NER) requires that anyone selling energy to customers must hold either a retailer authorisation or a valid exemption. While many energy sellers hold an authorisation, this is not always appropriate for all energy businesses. Under the NER, the AER is the body responsible for assessing and granting these exemptions in jurisdictions where the NECF applies. Business or individuals that seek exemptions from retailer authorisation in Victoria have a different process to follow.

While these service providers can be exempted from obtaining a full retail licence, exempted sellers are still subject to some consumer protections as a condition of being exempted. For example, conditions relating to billing frequency and payment arrangements, disconnections procedures, and procedures for customers with life support requirements. Some are also required to provide customers with information about consumer protections under ACL.

³¹ See AEMC, *Integration of Storage: Regulatory Implications*, final report, AEMC, 3 December 2015, Sydney, <http://www.aemc.gov.au/Major-Pages/Technology-impacts>.

³² See Brinsmead, T.S., Graham, P., Hayward, J., Ratnam, E.L., and Reedman, L., 2015, *Future Energy Storage Trends: An Assessment of the Economic Viability, Potential Uptake and Impacts of Electrical Energy Storage on the NEM 2015–2035*, Australia, <http://www.aemc.gov.au/Major-Pages/Technology-impacts>.

The current retail exemption framework covers a broad range of selling activities including those within embedded networks. Broadly, embedded networks are arrangements where the owner of a smaller private electricity network sells electricity to other parties that are connected to this private network. These can be for commercial or residential purposes. Examples of these private networks can include hospitals, retirement villages, caravan parks, apartment complexes and commercial and residential strata properties.

Embedded networks are common in Australia. The AER has granted nearly 2000 retail exemptions to embedded network owners. Until recently, those customers who could only access the electricity system on a private embedded network could not choose their own electricity retailer as the energy would typically be sold to the customer by the embedded network owner. In December 2015, the AEMC completed a change to the rules to better enable embedded network customers to access retail market offers from electricity retailers.³³

The exemptions framework also includes 'power purchase agreements' (PPAs) as a registerable class of exemptions. These PPAs include scenarios where an energy service provider installs solar PV at a customer's home and sells the customer the energy from those panels at an agreed rate.

In jurisdictions that have implemented the NECF, energy businesses offering PPAs can be exempted from the requirement to obtain a full retailer licence. To date, the AER has granted exemptions to over 100 businesses offering PPA services, and a third of these providers offer services primarily to residential customers.

5.2.2 Information in competitive retail markets

Customer access to appropriate information is also important to deliver better customer and market outcomes. Without appropriate and accessible information about what these technologies and services deliver, and the benefits and costs of these, consumers may not make informed choices.

Where customers have a misconceived understanding of how a specific technology may benefit them, there is a risk that those customers may enter contractual arrangements for those services and not get the results they were expecting.

For example, a 3kW solar system could be expected to generate 4000 kWh of electricity a year. A customer with a low level of knowledge could assume that this amount of electricity would cover a large proportion of their energy use, without understanding for instance, that much of their usage could be at night time, when the solar panels are not in operation, and they will still face significant energy bills.

Where customers have little awareness of how a specific technology or service may benefit them, they may not even investigate taking up the service and so miss out on benefits they may have valued. In both instances, access to clear and appropriate information about the features, benefits and costs of new technologies and services

³³ AEMC, *Embedded Networks*, rule determination, AEMC, 17 December 2015, Sydney, <http://www.aemc.gov.au/Rule-Changes/Embedded-Networks>.

could improve customer outcomes by providing customers with the capacity to make informed choices.

In addition, the lack of clear consumer protections can lead to poor customer outcomes. As discussed above, customers may not be aware that the full range of energy customer protections may not be available to them when choosing certain technologies and services. This could lead to poor outcomes for those that experience quality or service issues.

5.3 Current customer understanding and awareness

To better understand residential customers' knowledge of and engagement with new and emerging technologies and services, we commissioned Newgate to undertake additional qualitative research. The research focussed on identifying the following:

- customer understanding and awareness of their current energy arrangements;
- customer understanding and awareness of new energy products and services;
- customer attitudes to and potential uptake of new and emerging technologies and services; and
- customer expectations around associated consumer protections.

The qualitative research was conducted with 66 residential customers from across the technology adoption spectrum,³⁴ using focus groups and an online community forum.³⁵ Newgate also used the outcomes of the 2016 customer survey to supplement the findings of their qualitative research.

5.3.1 Understanding and awareness of energy arrangements

Newgate's research found that customers generally had a low knowledge of their energy arrangements, such as the link between their energy use and costs, and did not have sufficient information to make informed choices about the energy products and services available in the market. The limited knowledge levels were matched with limited engagement, and the general relationship with energy was largely transactional and pragmatic.

Customers generally had little knowledge of the different tariff types available to them. Awareness of the components making up their bills was limited mostly to the existence of supply and usage charges, and peak and off-peak rates. Discussions of bills tended to focus on payment options (such as discount rates, bundling discounts, concessions for pensioners and billing periods) rather than different tariff types and options such as flat rate or time-of-use pricing.

³⁴ All small business participants and online residential participants, as well as a small portion of telephone-interviewed residential participants were asked to self-rate their attitudes towards new technologies using statements that reflected Everett Rogers' diffusion of innovations theory, commonly known as the technology adoption curve. Participants could self-identify from a spectrum broken into five categories: innovators, early adopters, early majority, late majority, and laggards.

³⁵ Further information on Newgate's methodology is provided in Newgate Research, *New and Emerging Energy Technologies and Services*, report to the AEMC, June 2016.

Customers also had a low level of engagement with their energy retailer. This engagement was generally limited to issues with billing discrepancies or meter readings, and investigations of other offers with a view to switching retailers. Many customers described energy as something they expect to be available when they flick a switch and then they pay the bill.

Some customers, however, were more engaged than others, noting that their retailers had made real-time data available to them, enabling them to be more actively engaged with their energy consumption and costs. Solar users were also much more aware of their rebate and plan type.

Customer awareness of their energy use and arrangements is discussed further in Chapter 6.

5.3.2 Awareness of new and emerging technologies and services

Customers were asked what new and emerging energy technologies and services they were aware of, what they knew about them, and their views on them. Most customers who participated in the research could name a number of specific energy generation technologies, such as wind and solar power, and some could name other generation technologies such as nuclear, geothermal and wave power. Some participants mentioned they had recently become aware of home battery storage.

Generally, customers found it difficult to conceive what a new energy service would look like. Those that could identify what new energy services might be mentioned new applications and services provided by their retailer that enabled them to monitor their electricity usage and costs. For example, one participant described her service as follows:

“We receive updates from our provider that allow you to see your daily use. All this information makes us monitor our use more as we can see the changes in our use. Previously we just got a bill each quarter and we were not engaged at all...My kids can also see our energy use go up and down and so they switch off lights and computers etc when they are not using them.”

In addition, there was generally a very low level of understanding of the new products and services themselves. Customers often found it difficult to accurately describe what certain products and services can do for customers, how much they cost and any concerns or issues that may exist with the technologies. For example, customers had little understanding of how home battery storage could operate to their benefit or its cost. Customers were also largely unaware of the potential costs of going off-grid with solar and batteries, and the reliability issues that would need to be considered when doing so.

The research identified that solar and wind generation were the best understood technologies, and that participants considered these as proven, advanced, and expected to see broader uptake. There was some concern about the intermittency of these technologies, particularly wind. Solar was very appealing, although the costs were still considered a barrier to uptake. Customers that did have this technology on their homes were frustrated at the reductions or removal of feed-in-tariff subsidies.

Battery storage was considered as an appealing technology with greater potential for use in the market despite customers' limited understanding. Battery storage was viewed as the 'bleeding edge' of technology, and potentially 'game-changing' when combined with solar PV generation. They were also unsure about how 'proven' batteries are, the costs, or how they would interact with energy supply from the network.

Smart meters, and time of use pricing were viewed quite favourably, although there was limited knowledge of these beforehand. Once explained what these were and how they work, participants saw the benefits to save energy and money. There were some concerns about installation, information privacy, and health and safety concerns.

Reactions to other new energy technologies and services such as home energy management systems, remote controlled appliances and third party access to household appliances ranged from unsure to mistrust. The benefits of these services were quite unclear to participants, and some were cautious of the privacy and control implications of allowing a third party to access and control their appliances.

5.3.3 Attitudes to new and emerging technologies and services

Customers were asked to discuss various new energy technologies and what impact they would have on the market.

Generally, customers felt that environmental protection would be at the core of developments in new energy technologies and services, and that these new technologies would empower consumers to take responsibility, with some noting that it would help 'to take the planet in the right direction'.

Customers understood that new technologies and services could enable them to be more self-reliant for their energy needs, but were unsure of the specifics of how this may be enabled. Participants hoped that strong leadership would lead to innovation in technologies creating smart new solutions.

Customers who participated in the research wanted to understand what the benefits of the technologies and services are, how they affected them, and how they may be of benefit in the future. They identified that clearer, intelligible information would lead to smarter, informed choices. This would, in turn, provide them with the tools to evaluate changes in the products and services that are available to them, and to better understand the general direction in which the sector is moving.

5.3.4 Take up of new and emerging technologies and services

Customer responses were mixed when customers were asked about whether they would consider purchasing or using specific technologies within the next five years. Those technologies customers perceived as being low cost were more likely to be taken up, while others with moderate to high perceived cost being less likely to be taken up. While the information about costs is one factor, other factors including information about general awareness, perceived benefits, reliability, needs and level of control are also influence customers desire for these new technologies and services.

When asked about their likelihood to take up specific new technologies and services, the two technologies and services most favoured by customers were smart meters and

time-of use tariffs. This is despite their 'low to moderate' general awareness of them and their benefits being not clearly understood. These had very low perceived costs.

Most customers identified that they were not likely to take up the other technologies and services within the next five years. This included solar PV, battery storage, remotely controlled access to appliances, and home automation. For most of these technologies, customers identified that the primary factors to low take up were a lack of information about the benefits, the unknown reliability, their need and high cost. For solar PV, customers identified that the perceived high cost was the most important factor for being not likely to take up the technology within the next five years as, generally, customers had a high general awareness of the benefits, the need, the reliability, and the level of control of solar PV.

Newgate asked customers about what they perceived were barriers or enablers driving uptake for a range of new technologies and service. The most important barrier they identified was a general lack of knowledge about the features of new technologies and services. Customers struggled to grasp the perceived need for the technology or service, or what problem they were intended to solve. They also didn't understand how some technologies work, their reliability, how to control them, or how much time they would need to spend to learn how to use them.

Other barriers to uptake identified were cost concerns. Customers felt that they did not have adequate information in order to adequately assess the scale of the benefits or costs. This included information about the time savings they might gain, the trade-offs between different technologies, the environmental benefits, or technical information such as the capacity of the system they may need. Other barriers mentioned included certain government actions, including reduced rebates for small-scale rooftop PV, reductions in feed-in-tariffs, and hindering large-scale solar and wind farm development.

5.3.5 Customer expectations around associated consumer protections

Newgate also asked customers about their expectations about how their rights as a consumer should be protected in relation to the new technologies and services which are becoming available.

Newgate identified that there was a lack of customer knowledge about the scope and scale of consumer protections covering them. Some customers considered that the current level of consumer protections were adequate in relation to the new technologies and services and expected that protections for new energy and related services would be included in both existing consumer law and fair trading legislation. Other customers were unsure. Customers also broadly considered that they would be covered by Australian consumer laws and have available sources of recourse such as the local energy ombudsman office, or other legal options.

Customers could also not identify the ways in which consumers should be protected in the future, reflecting a lack of familiarity and engagement with existing protections. Customers considered that where the new technologies and services were physical products, most viewed that these should be protected by appropriate warranties, and that the appropriate length was thought to be at least five to 10 years given their expected lifespan.

5.4 Implications for customer outcomes and protections

Newgate's research provides qualitative evidence that some customers have limited information about the features, benefits, and costs of new technologies and services. The research suggests that customers lack a general understanding about the:

- functionality of new technologies and services;
- how they can benefit from these new offerings;
- how to assess their costs and benefits; and
- how to access information about them.

These information gaps can lead to increased risks being faced by customers. For example, Newgate's research survey identifies that customers were more likely than not to install technologies perceived as cheaper despite their 'low to moderate' general awareness of them, the benefits being not clearly understood, no clear perceived need, or an unknown reliability. This presents as a risk to those customers who do elect to take up these options, as they may not get the value out of them that they had anticipated.

Additionally, Newgate's research identifies that the knowledge gaps can result in customers potentially missing opportunities to save money, or derive other value that these technologies and services can provide to them. The research identifies that a general lack of information about how to quantify and assess the costs and benefits affects take-up.

We consider that industry and governments have important roles to play in ensuring clear and easily accessible information is available. There is an important role for industry to address knowledge gaps and it is ultimately in their interest to do so. As these markets mature it is likely customer awareness and understanding will increase. Where customers want information about new technologies and services and the offers in the market that provide these, then governments have a role to provide independent and appropriate information about the features, benefits and costs is available. Both industry and governments can assist customers to make informed judgments about whether the offers can provide value to them, which can likely improve both customer and market outcomes.

Newgate's research also highlights a lack of customer awareness about the protections available to them. Some customers broadly assumed that consumer protections related to new energy-related services were adequate, while many were unclear about these issues. Of those that considered that consumer protections were adequate, they also assumed, generally, that customers had sources of recourse available such as Ombudsmen offices.

In the submissions to our Approach Paper, consumer groups raised concerns about the potential lack of access to appropriate consumer protections. For example, the Consumer Action Law Centre (CALC) noted that 'the issue of dispute resolution and access to justice is already a problem for consumers who engage with these products and services.'³⁶ As a result, consumer groups identify that consumers may not be

³⁶ CALC, *Submission to the Retail Competition Review 2016*, p. 4.

sufficiently protected after they purchase some new products and services, nor have identifiable or adequate avenues to resolve disputes.

Governments and other regulatory bodies are considering the issue of customer protections in light of evolving market.

The COAG Energy Council's Energy Working Group is currently undertaking a review of the NECF to assess whether the framework is appropriate in light of the ongoing change taking place in competitive energy markets, particularly in relation to the introduction of new technologies, products and services.³⁷ The AEMC in 2012 recommended that the NECF be amended to include a framework that would govern third parties (non-retailers and non-regulated network services) that provide energy services to residential and small business customers.³⁸

In addition, some jurisdictional authorities are also considering these issues further. For instance, the QPC has recently examined emerging technologies and their potential impacts on electricity pricing and outcomes for customers as part of its review.³⁹

In Victoria, the Victorian ESC is reviewing the efficiency and effectiveness of the current energy licencing framework,⁴⁰ and the Department of Economic Development, Jobs, Transport and Resources is examining the General Exemption Order.⁴¹ Both reviews are considering consumer protection issues arising from new technologies.

As customers are offered an increasing number of new products and energy services there is a need to consider how consumer protection frameworks should evolve. Our recommendations from the 2015 strategic priorities remain relevant, which are that:

- AEMC and Energy Consumers Australia work alongside the COAG Energy Council to determine how the energy consumer protections framework needs to evolve; and
- COAG Energy Council successfully completes its current review of the NECF in light of the changing business models facilitated by technological change and existing ACL protections.

³⁷ See COAG Energy Council work on new products and services in the electricity market at COAG Energy Council 2016, Canberra, viewed 20 June 2016, <http://www.scer.gov.au/publications/new-products-and-services-electricity-market-advice-ministers-july-2015>.

³⁸ AEMC, *Power of choice review – giving consumers options in the way they use electricity*, final report, AEMC, 30 November 2012, Sydney, <http://www.aemc.gov.au/Media/docs/Final-report-1b158644-c634-48bf-bb3a-e3f204beda30-0.pdf>.

³⁹ See QPC, *Electricity Pricing Inquiry*, draft report, 3 February 2016, Brisbane, <http://www.qpc.qld.gov.au/files/uploads/2016/02/EPI-DRAFT-REPORT-Final.pdf>.

⁴⁰ See Victorian ESC, *Modernising Victoria's Energy Licence Framework*, issues paper, Victorian Parliament, June 2015, Melbourne, <http://www.esc.vic.gov.au/Energy/Modernising-Victoria-s-Energy-Licence-Framework>.

⁴¹ See Review of the General Exemption Order, QPC, Brisbane, viewed 20 June 2016, <http://www.qpc.qld.gov.au/inquiries/electricity-pricing/>.

6 Experiences and outcomes for vulnerable customers

We are required to assess the state of competition for all customers in energy markets, however, it is useful to consider whether, how and why customer experiences differ across customer segments. For example, if some segments are not engaging in the market, this may be due to their own personal preferences. On the other hand, it may be because there are particular barriers, such as high search or switching costs.

Understanding these differences can inform decisions about the need for policy responses to support different customer segments and what those responses may be.

In our previous competition reviews, we found that vulnerable customers' experiences may differ from those of other customer segments, and these customers may not be benefiting from savings available in the competitive retail energy market. Therefore, for this year's review, we engaged Newgate to undertake additional research focused on understanding:

- how vulnerable customers' experiences and outcomes compare with those of other customers;
- why some vulnerable customers do not engage and shop around for better deals, or investigate their options but then do not switch; and
- what measures would assist vulnerable customers to effectively engage and participate in competitive retail energy markets and access the best-available offers.

This research included two parts. The first was segmentation analysis,⁴² which drew on the results of its quantitative survey (discussed in Chapters 7 and 8). The second was qualitative research with 53 residential energy customers across the NEM who were identified as being more vulnerable.⁴³ This research included 15 one on one interviews and two online community forums.⁴⁴

The sections below outline the main findings and then discuss the outcomes of Newgate's segmentation analysis and qualitative research in more detail.

6.1 Main findings on vulnerable customer experiences and outcomes

Across the NEM, residential energy customers sit on a spectrum from low risk to high risk of vulnerability. A customer's degree of vulnerability varies over time, depending on their financial, social and personal circumstances.

⁴² Segmentation analysis generally involves dividing a community, market or customer base into groups of individuals that are similar in specific ways, relevant to marketing, communications and other engagement activities.

⁴³ Residential customers were from suburbs across the NEM identified as highly vulnerable on the CofEE Employment Vulnerability Index (based on ABS Census 2011 data). The degree of vulnerability of these customers was determined using various indicators based on demographic and personal characteristics.

⁴⁴ Further detail of Newgate's approach regarding for these online and one on one interviews and forums can be found in their report, Newgate Research, *Understanding vulnerable customer experiences and needs*, report to AEMC, June 2016.

Newgate's segmentation analysis identified seven customer segments in this spectrum, from 'vulnerable low income' and 'vulnerable mid income' to 'secure retired' and 'secure higher income'. It found that customers in the most vulnerable segment – vulnerable low income – are engaging and participating in the market at similar rates to other customers. These customers are also very familiar with, and connected into the available support services, such as concessions/ or rebates on their energy bills and payment plans with their retailer.

Customers in other vulnerable segments – vulnerable mid income and low income retired – are the least likely to have shopped around for a better offer. These customers do not know how to investigate their options, or feel they do not have the time to shop around. They are generally not linked into support services and feel embarrassed to ask for assistance. This suggests they are potentially missing out on savings available to them in the market.

Customers in the vulnerable mid income segment tend to be dual parent households that are renting and have only one parent working and a child living at home. They tend to have higher electricity bills and are more likely to miss or be late paying a bill. Customers in the low income retired segment generally have lower bills and are less likely to say they don't have time to think about their energy options. They are the most likely of all segments to have said they are not interested in investigating their options and to have not switched in the last 12 months.

Newgate's quantitative research found that vulnerable customer experiences and outcomes are similar to all other customers. However, as vulnerable customers are more at risk financially than other customers, negative energy market outcomes may have greater consequences for them. By not investigating their options and capturing the savings available in competitive retail market offers, they may be missing out on savings that they could otherwise put towards other important needs.

The qualitative vulnerable customer research also provides some insights as to why some customers may not be shopping around. For example, some customers exhibited inertia, loss aversion and status quo bias, and had general misconceptions about energy offers or retailers. Overall, the qualitative research found that vulnerable customers:

- do not clearly understand the links between energy use and costs, and therefore are at a greater financial risk if they are not on the right energy offer;
- are not aware of the plan they are on or that they can choose from various plans from their own or different retailers;
- have limited understanding of the terminology used on bills, such as kWh, or the difference between standing and market offers; and
- will tend to stick with their existing retailer because they have a risk adverse nature, which is partly due to a lack of financial capacity, fear of making a wrong decision and concern about how their circumstances may be perceived by a retailer.

Consistent with all customers in the NEM, virtually all the vulnerable customers who participated in the qualitative research were not aware of the government-run energy comparison websites. When given an opportunity to try the relevant website for their state, they had an overwhelmingly positive experience and considered the site a very

useful tool to assist them to consider their options. They thought that these sites should be widely promoted so that customers are aware they exist.

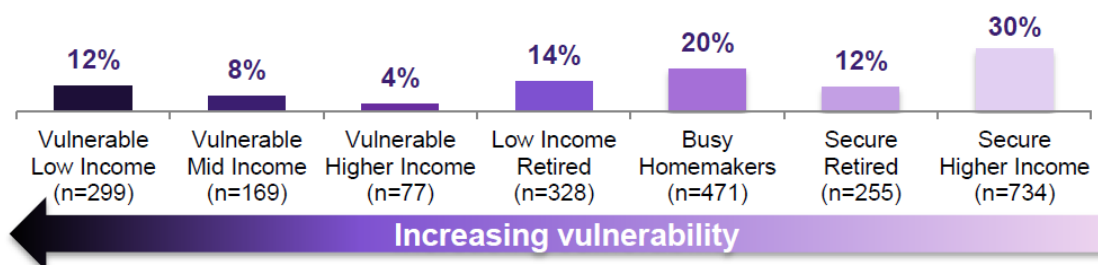
The vulnerable customer research suggests that different customer segments will require different approaches to increase awareness and engagement. Some segments would benefit from targeted information and awareness about energy use and costs and the tools available, so that they can investigate their options and capture the savings available from competitive market offers. Others require information about the support services available. Our customer research also suggests that vulnerable customer outcomes could be improved if concession policies were better targeted to those customer segments most in need of such support and awareness of these concessions was raised.

6.2 Segmentation analysis findings

Newgate conducted segmentation analysis to determine the broad nature of customer vulnerability across energy markets in the NEM, and to help identify the customer segments that may require further support to engage in the market. Customer vulnerability was identified based on a mix of energy market behaviours, attitudes and personal circumstances.⁴⁵

Newgate allocated all the residential energy customers in its quantitative survey into one of seven different segments, ranging from most to least vulnerable. Figure 6.1 shows these segments and the proportion of customers in each.

Figure 6.1 Segmentation analysis – spectrum of customer vulnerability across



Source: Newgate Research

6.2.1 Customers' personal circumstances influence their vulnerability

Newgate found that while the two most vulnerable segments represent one in five customers, customers in all segments can experience some level of vulnerability due to their financial, social and personal circumstances. In addition, customers with certain characteristics or circumstances are likely to be more vulnerable. These include customers who:

- are renting;
- are not in full time employment;

⁴⁵ Further detail of Newgate's approach to the segmentation analysis is found in their report, Newgate Research, *Understanding vulnerable customer experiences and needs*, report to the AEMC, June 2016.

- have experienced significant financial, social or personal stresses in the 12 months;
- are living in regional areas, away from capital cities;
- are female, especially if also a single parent;
- are indigenous Australians;
- are recent immigrants;
- are on a special payment arrangement with their energy provider due to financial difficulty; and
- have savings that would support them for less than three months if their income sources were to stop unexpectedly.

6.2.2 Vulnerable customers' engagement in the market

Newgate compared the energy market behaviours and attitudes of the vulnerable customer segments. It found some customer segments are less engaged in the market. The most vulnerable customers – those in the vulnerable low income segment⁴⁶ investigate their options and switch energy retailers at rates comparable with all other customers. For example, almost three in ten had investigated their options in the last 12 months, similar to all other customers. Around 28 per cent had switched in the last 12 months, compared to an average of 23 per cent for all other customers. These customers tend to be connected into the support services available to them, such as accessing concessions or having a payment plan with their retailer.

In contrast, the next most vulnerable customers – the vulnerable mid income segment – are less likely to engage in the market and shop around for a better deal than most other customers. These customers are typically two-parent households with one income, and are most likely to have a child living at home or had a baby in the last 12 months. They tend to have higher electricity bills than most other customers, and reported missing paying late an average of 2.7 energy bills per year. In general, they don't know how to investigate their options or feel that they don't have time to shop around. Of all the customer segments, they are the least aware that they can choose from different plans. In addition, they are the least likely to access support services and more likely to feel embarrassed to ask their retailer for a payment plan. Given their financial and family commitments, this segment of customers would benefit from a targeted awareness program that raises their awareness of the tools available so that they can investigate their options and capture the savings available from competitive retail market offers.

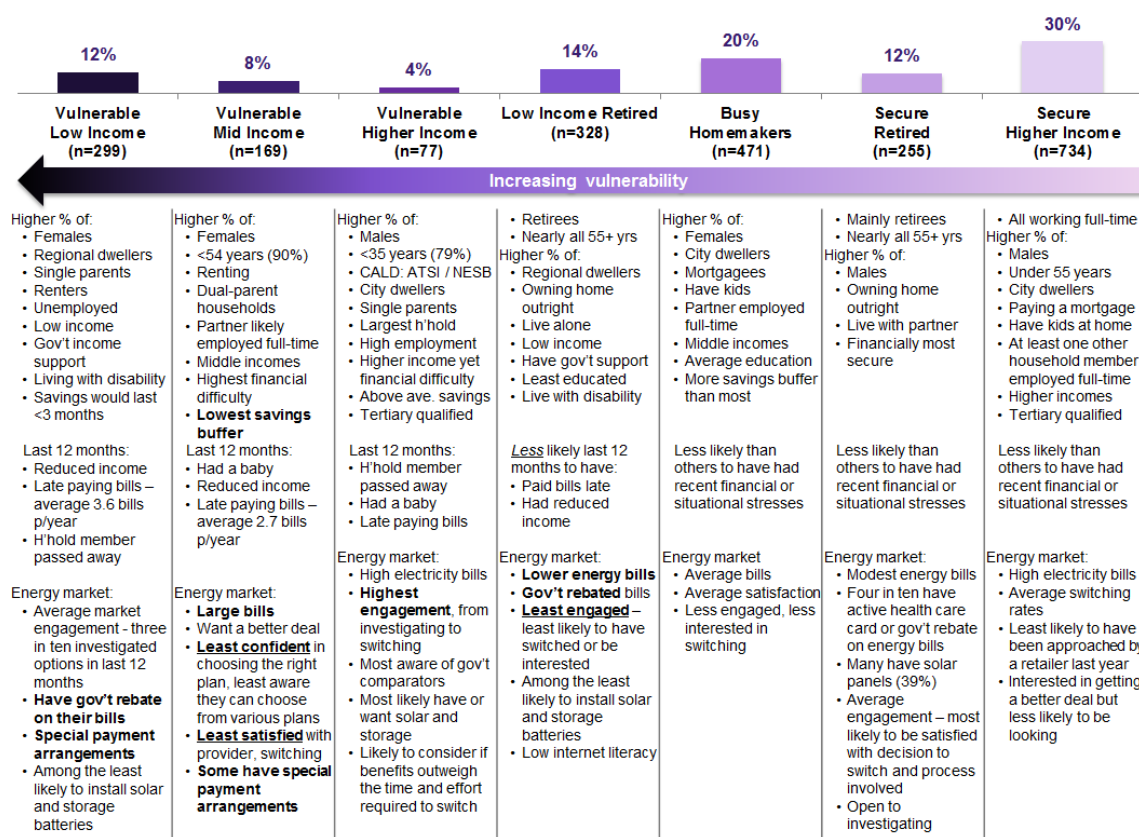
Two other segments are less likely to engage in the market and shop around for a better deal – the low income retired and busy homemaker segments. Those in the low income retired segment have low electricity bills and are least likely to miss a bill payment of all customer segments. They are also more likely to receive government rebates or concessions on their electricity bill than all other customers. These customers are least likely to be interested in switching retailers or have switched in the past 12 months. For example, only 19 per cent of customers in this segment had switched compared to 23

⁴⁶ This segment are the least financially secure of all customer segments and this customer segment is most likely to miss on average 3.6 energy bill payments per year.

per cent of all customers. Customers in the busy homemaker generally have an average degree of financial vulnerability, but less likely to consider their energy options and to switch.

Figure 6.2 outlines the key demographic characteristics and preferences of customers in the different vulnerable customer segments identified in the segmentation analysis.

Figure 6.2 Demographic characteristics and attitudes of across the spectrum of customer⁴⁷



Source: Newgate Research

6.3 Qualitative research findings

Newgate conducted qualitative research to further explore vulnerable customers' engagement in the market. It asked residential customer participants a series of questions to explore their:

- awareness of their energy use and market choices;
- behaviours and attitudes to investigating their options;
- reasons for not investigating their options and switching;
- perceptions about energy retailer and their retail experience;
- views on support measures required; and
- experiences following introduction to search tools.

⁴⁷ Newgate Research, *Understanding vulnerable customer experiences and needs*, report to the AEMC, June 2016.

Newgate had regard to the results of its quantitative customer survey in analysing the findings of this qualitative research.

6.3.1 Vulnerable customer awareness of energy use and market choices

Vulnerable customers who participated in the one-on-one interviews and the online forums were asked about their experiences and perceptions of their energy use to assess their understanding of energy issues and engagement in the market.⁴⁸ Most said they try to save energy to reduce their bills. Like most other customers, they did not clearly understand the link between their energy use and energy costs. This presents a risk for vulnerable customers because they are at a greater financial risk compared to other customers, particularly if they are not on the best energy offer for their personal circumstances.

Many vulnerable customers identified that in certain circumstances they are unable to manage their energy use. For example, they said they cannot avoid using air conditioning on very hot days or when children are at home. Many also said they cannot afford more energy efficient appliances so were generally resigned to having higher bills.

While many vulnerable customers were aware that they can choose their energy retailer, most could only name the larger retailers that tend to advertise more, or those that had recently approached them. In addition, most were:

- not aware they can choose from various plans offered by their current and other energy retailers;
- did not know what plan they were on, or the difference between standing and market offers; and
- did not understand their bill or the terminology used (ie, difference between tariff and rate).

For some vulnerable customers, not understanding their bill made it difficult for them to use the comparator websites and link their energy offer options to their bill.

6.3.2 Behaviours and attitudes to investigating options

Vulnerable customers who participated in the qualitative research were asked about their experiences in investigating energy retailers and plans.⁴⁹ Most had a very low level of interest in energy-related issues, including choosing their energy retailer. While most said they wanted to save money on their energy bills, very few were looking for a better offer. Most also thought looking for a better deal was confusing and difficult. Therefore, they thought it was easier and safer to stay with their current energy retailer – even if that meant they were potentially missing out on a better deal. Those who had previously used a comparison website did find the experience easier.

Among vulnerable customers who had investigated their options, the main drivers of this behaviour were price related. For example, they wanted a cheaper price, or had

⁴⁸ Newgate Research, *Understanding vulnerable customer experiences and needs*, report to the AEMC, June 2016, p.30.

⁴⁹ *Ibid*, p.38.

experienced bill shock or a change in their personal circumstances. In addition, most seemed to need a noticeable trigger event to overcome their inertia, such as:

- moving house or getting solar panels installed;
- repeated poor customer service and not being able to reconcile issues;
- direct approaches by retailers with an offer or incentive (such as pay on time discounts, no lock-in contract etc);
- reaching the end of a contract;
- wanting to change their billing arrangements (ie., move to monthly bills);
- word-of-mouth recommendations from family or friends; and
- increased prices or (for the few who have solar) decreased solar feed-in tariffs.

Similar to other customers, vulnerable customers who had investigated their options had used online searches as well as information from their retailers, either by using their website or calling them directly. Recommendations from their family or friends could influence their final decision, particularly, if they were unsure about an offer or deal.

These vulnerable customers' experiences with switching were mixed. Most thought it was an easy process and they were happy with their decision. Some experienced some issues – such as the process taking too long – but this did not seem to deter them from switching again in future.

6.3.3 Vulnerable customers reasons for not investigating options and switching

Vulnerable customers were also asked about their reasons for not investigating their options and switching to more competitive energy offers.⁵⁰ Some of their reasons differed from those given by all customers. These included the following:

- **Difficulty in understanding offers and fear of making the wrong decision.** Most customers found the inconsistent terminology used in the market confusing and therefore tended to stick with what they knew so they did not risk paying more. This reason was more prevalent for those vulnerable customers with significant pressure on their finances.
- **Concern about their personal financial situation.** For example, some vulnerable customers were concerned they would lose their existing benefits or be unable to get the same payment arrangements if they transferred new retailer. Some also thought they might not be able to afford to switch because of exit and disconnection fees.
- **Loyalty to their existing retailers,** because of their customer service and flexible payment plans.
- **Concern about how retailers might perceive their financial situation.** Many vulnerable customers considered that their inability to pay their bill was

⁵⁰ Newgate Research, *Understanding vulnerable customer experiences and needs*, report to the AEMC, June 2016, p.35-36.

embarrassing and wanted to avoid having this discussion with an energy retailer they have no history with. Not all customers were aware that an option such as setting up a payment instalment plan was even available.

Other reasons were similar to those given by all customers. These included the following:

- satisfaction with their current retailer;
- General lack of time and inertia to engage with the market and work out how to compare plans. Some customers said they were too lazy to be more proactive, tending to stick to their existing routine and habit.
- Lack of perceived benefit and no real value differentiation. There is a common view that energy retailers are the same in terms of value and prices, which leads to scepticism about alternative deals or offers.; and
- Perceptions that those living in a retirement village, caravan park or public housing cannot choose their retailer because the body corporate or similar chose the retailer for them.

6.3.4 Perceptions of energy retailers and their retail experience

Vulnerable customers who participated in the one-on-one interviews and online forums were asked about their perceptions of their energy retailer.⁵¹

Most said all retailers are much the same. Where they identified differences, these related to customer service levels, and their perceptions were shaped by personal and word-of-mouth experiences. Some customers indicated they are loyal to retailers that provide hassle-free customer service or flexible payment arrangements.

Overall, most were happy with their existing retailer. As they generally did not engage much with their retailer, their satisfaction was based on the fact that they had never encountered a problem.

6.3.5 Vulnerable customer views on the tools to help them investigate options and shop around

Newgate asked vulnerable customer participants in the qualitative research what would help them to investigate and understand energy options and take advantage of the potential savings available. Most suggested an independent government-run energy comparison website, and were unaware that such websites already existed.

Newgate then showed them the government comparison website for their state,⁵² and asked them to use the sites. Overall, most thought the sites were easy to understand and use. Most also said they would use the websites and recommend them to family and

⁵¹ Newgate Research, *Understanding vulnerable customer experiences and needs*, report to the AEMC, June 2016, p.32.

⁵² Victorian Energy Compare in Victorian, Energy Made Easy in Queensland, New South Wales and South Australia.

friends. There was a strong view that the government-run comparator sites should be promoted to raise customers' awareness of them.⁵³

Vulnerable customers also suggested that customer education and information would be helpful. Most acknowledged there is an onus on customers to self-educate, but some said they did not know to look for. Some also suggested that the following would be useful:

- Information to help them understand the terminology and metrics energy retailers use. Some also suggested that standardising these terms would make comparing energy offers easier.
- Tools to understand energy use, such as online portals, electronic bills and real-time monitoring apps.
- Better advertising of the discounts and concessions available. A few customers thought that exit fees from contracts should be abolished.

Most vulnerable customers considered that education and information come from government, as they perceive this to be the most reliable and credible source. Some also mentioned independent bodies and the consumer advocacy group CHOICE. Most also considered that different communication channels should be used, ranging from the internet and word-of-mouth to community centres and local councils.

⁵³ Newgate Research, *Understanding vulnerable customer experiences and needs*, report to the AEMC, June 2016, p.42.

7 Customer activity in the market

Customer activity plays an important role in competitive retail energy markets. Customers that are aware of the choices available to them, and who actively shop around for energy offers, place downward pressure on prices and drive retailers to improve the services they provide.

To understand how retail energy markets across the NEM are performing against this indicator, we used Newgate's 2016 customer survey⁵⁴ and customer transfer data from AEMO and the AER to examine three aspects of customer activity:

- *Customer engagement* – customers' awareness of the market choices available to them, whether they are investigating their options and, when they do so, what information sources they use.
- *Customer switching* – trends in rates of customers switching energy retailer and plan both over the past five years and over the past 12 months, as well as the number of direct approaches by retailers.
- *Customer attitudes* – factors important in deciding whether or not to switch, including confidence and attitudes to switching and interest in finding a better deal.

This chapter summarises our main findings, and then discusses our findings on each of these aspects in more detail – including the 2016 survey results and trends for both retail electricity and gas markets across the NEM. We also outline any significant differences between jurisdictions, between the residential and small business customer segments, and where data is available, across and within customer segments.

Note that for this chapter, the findings that are presented for NEM jurisdictions only include jurisdictions where residential customers have an effective choice of electricity retailer. Those jurisdictions are South East Queensland, New South Wales, the Australian Capital Territory, Victoria and South Australia. Findings for regional Queensland and Tasmania are reported separately where relevant.⁵⁵ The findings for the vulnerable customer segment are provided in Chapter 6.

7.1 Main findings on customer activity

We found that customer activity in electricity and gas markets is high in South East Queensland, New South Wales, Victoria and South Australia. Customer activity remains lower in the Australian Capital Territory, but it has improved significantly since 2014.

Customer awareness of retail energy market choices remains high in most jurisdictions. Around 90 per cent of electricity and gas customers were aware they can choose their

⁵⁴ Newgate Research, *Consumer research for 2016 nationwide review of competition in retail markets*, research report, report to the AEMC, June 2016.

⁵⁵ Including regional Queensland and Tasmania in the NEM wide results would reduce clarity in those results because customers living there have no or limited choices available to them, naturally impacting their answers to many questions, such as related to investigating and switching energy plans.

retailer in South East Queensland, New South Wales, Victoria and South Australia. The proportion was lower in the Australian Capital Territory, but it has improved significantly for electricity since 2014. In Tasmania, most customers were aware that they do not have an effective choice of electricity retailer. Survey findings for regional Queensland were not reliable because the question asked was not specific to this market.

Customer investigation of retail energy market offers or options is relatively steady overall. About three in 10 customers investigated their energy options in the past 12 months in most regions. Across South East Queensland, New South Wales, Victoria and South Australia 26 to 32 per cent of residential customers investigated their energy options in the past 12 months. In the Australian Capital Territory 23 per cent of residential customers investigated their options, up from 10 per cent in 2014. Around half of the residential customers who investigate their options go on to switch retailer.

The customer switching rate in retail electricity markets varied across NEM jurisdictions (excluding regional Queensland and Tasmania) but overall was steady at 19 per cent. Switching rates were highest in Victoria at 25 per cent, and lowest in the Australian Capital Territory at 4.5 per cent. Electricity customer switching rates in South East Queensland, New South Wales and South Australia were all between 15 and 17 per cent. The customer switching rate in the gas retail market across NEM jurisdictions (excluding Tasmania) fell from 20 per cent in 2014 to 17 per cent in 2015.

The vast majority of switching activity is motivated by the customer wanting a lower price or better deal, in all jurisdictions, energy markets and customer segments. Around one in 10 switches is motivated by poor service from an existing retailer. The most common reasons residential customers gave for investigating but not switching retailer were that they were just checking prices or that their current retailer provided better value.

Some customers may not be aware of the potential savings they can make by switching retailer or plan. On average, residential electricity customers across the NEM indicated they would switch to a better deal if they could save \$217 a year. Our pricing analysis shows that many customers could receive higher savings than this by switching retailer or plan (see Chapter 11).

There has been a significant increase in the proportion of customers who are highly confident they can find the right information to choose an energy plan that suits their needs. Sixty-three per cent of residential energy customers said they were highly confident of finding the right information, up from 54 per cent in 2015. For small business customers, this increased to 68 per cent from 46 per cent in 2015.

Customers who had used comparison websites were far more likely to say they were confident they could find the right information to find a better energy deal. However, awareness of these websites remains low. Only three in 10 residential customers were able to name a comparison site when unprompted, and only around 10 per cent recalled the government-run comparison website in their jurisdiction when prompted.

As discussed in Chapter 4, we consider that consumer outcomes would be improved if steps were taken to raise awareness of the tools available to assist customers to investigate their options, including the government-run comparator websites. We have

recommended that the jurisdictions coordinate the development of communication strategies to improve awareness of the tools available to customers so that they can choose the best options for their circumstances and improve customer confidence in the energy market (see section 4.8).

7.2 Customer engagement

The 2016 customer survey measured customers' awareness of the choices available to them in retail energy markets, and asked them whether or not they had investigated energy offers or options in the past 12 months. For those who had not investigated their options, it asked customers their reasons. For those who had investigated, it explored:

- whether or not they switched retailers and their reasons,
- how much time they spent investigating,
- how easy they found it to compare offers, and
- what information sources they used.⁵⁶

7.2.1 Customer awareness of retail energy market choices

The 2016 survey asked participants if people in their state or territory could choose their electricity and gas retailers. In NEM jurisdictions where residential customers can choose their electricity retailer, just over nine in 10 residential customers were aware they can choose their energy retailer, and around eight in 10 were aware they can choose their energy plan. The level of awareness among small business customers was similarly high, but was lower than in 2015 (see Figures 7.1 and 7.2).

The level of awareness among small business customers was slightly lower than in 2015. The proportion of small business customers aware they can choose electricity retailers was 92 per cent, compared to 96 per cent in 2015 and 88 per cent in 2014.

In the Australian Capital Territory, awareness of retail energy market choices was lower than in other jurisdictions where customers have effective choices. For example, among residential customers:

- Around 73 per cent were aware they can choose their electricity retailer and 61 per cent were aware they can choose their electricity plan. These results are similar to those in 2015 results, and higher than in 2014.
- Around 47 per cent were aware they can choose their gas retailer, compared to 54 per cent in 2015 and 36 per cent in 2014.

In Tasmania, almost 80 per cent of residential customers were aware that they have no effective choice between electricity retailers, which is higher than in 2015. The results for regional Queensland are not reliable because the survey question asked was not specific to the arrangements for customers in regional Queensland.

⁵⁶ More information about the approach and methodology used for the 2016 customer survey can be found in Newgate Research, *Consumer research for 2016 nationwide review of competition in retail Markets*, research report, report to the AEMC, June 2016.

Figure 7.1 Awareness of ability to choose energy retailer (NEM)

Consumers can choose their electricity company

Residential



Business



Consumers can choose their gas company

Residential



Business



■ Don't know ■ False ■ True

Base: All survey participants. Q13. Please tell me whether you think the following statements are True or False.
a) Consumers in your state [territory] can choose their electricity company. b) Consumers in your state [territory] can choose their gas company.

Figure 7.2 Awareness of ability to choose from different energy plans and options (NEM)

Consumers can choose from different electricity plans and options

Residential



Business



Consumers can choose from different gas plans and options

Residential



Business



■ Don't know ■ False ■ True

Base: Participants with mains gas. ! Caution low base size: results indicative only. NB: Question wording changed in 2015, so results are not directly comparable with 2014.
Q13d. Consumers in your state/territory can choose from a range of different types of gas plans, price structures, contract lengths and terms.

Awareness of retail market choices is the first step toward effective customer participation in competitive markets. We would expect to find higher levels of awareness in markets that are effectively competitive. The high levels of awareness in South East Queensland, New South Wales, Victoria and South Australia suggest these markets have more effective competition than the Australian Capital Territory, where lower levels of awareness may currently be an impediment to more effective competition.

Awareness of retail market choices varies across customer segments. Residential customers who had one of the following characteristics were less likely to be aware of their choices:

- aged between 18 and 34;
- had not switched energy providers or plans at all
- had not been approached by a retailer in the past 12 months; or
- said they are generally slower to adopt new technologies.

Residential and small business customers who had been approached by a retailer in the past 12 months and residential customers who used both electricity and gas were more likely to be aware of their choices.

7.2.2 Investigation of energy offers and options

The 2016 survey asked customers if they had actively investigated energy offers or options in the past 12 months. Across NEM jurisdictions (excluding regional Queensland and Tasmania), around three in 10 customers had actively investigated energy offers or options in the past 12 months. For residential customers, this finding is consistent with the 2014 and 2015 surveys, while for small business customers the proportion that had investigated their options over the past 12 months has decreased from 43 per cent in 2014 to 32 per cent in 2016.

In the Australian Capital Territory, the rate of customers investigating energy options remains lower than in other jurisdictions where customers have an effective choice, but has increased gradually in the last 12 months. For residential customers, this rate increased from 10 per cent in 2014 to 23 per cent in 2016. For small business customers, it increased from six per cent in 2014 to 12 per cent in 2016 (See Figure 7.3).

The rate of residential customers investigating their options in the past 12 months has decreased in Victoria from 39 per cent in 2014 to 32 per cent in 2016. This rate has also decreased in South East Queensland and South Australia over the same period, but by a smaller margin. In addition, the rate of small business customers investigating their options decreased in New South Wales and Victoria.

A lower rate of customers investigating their options does not necessarily indicate a reduction in the level of competition. Motivations for not investigating options must also be considered. The reductions in customers investigating their options in some jurisdictions has occurred at the same time as an increase in customers who are happy with their current arrangements or value proposition as noted in Chapter 8. Customer attitudes will also be important, for example, some customers may value loyalty or trust of their retailer over discounted offers.

Figure 7.3 Actively investigated offers or options in the past 12 months (by jurisdiction)



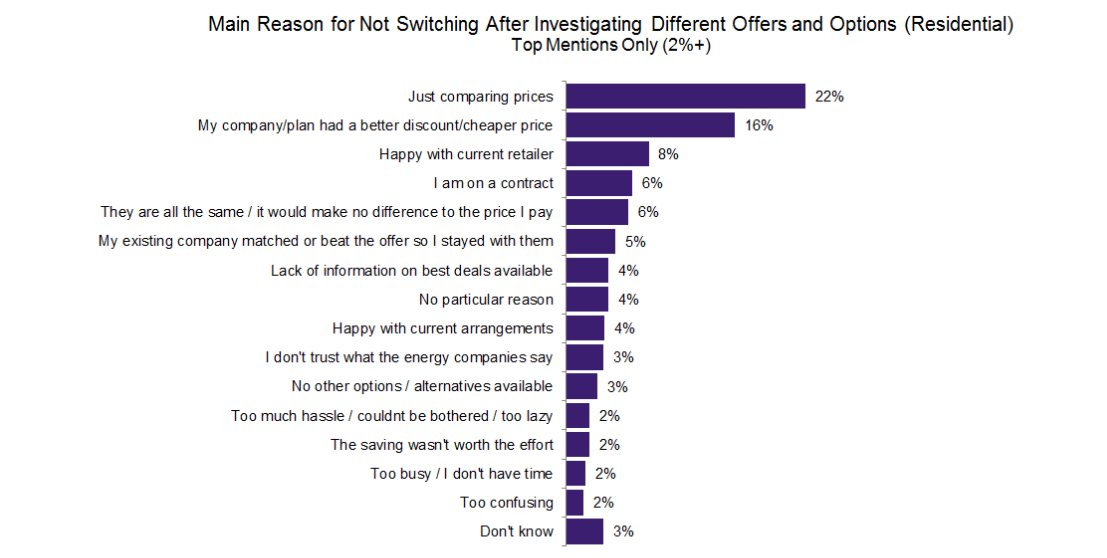
Base: All survey participants. NB: Not asked in Tasmania or Rest of Queensland. / Q20. In the past 12 months, have you actively investigated different offers or options that you could potentially switch to?

About 20 per cent of residential electricity customers and a quarter of small business customers investigated their options but failed to go on to switch retailers or plans. This was generally consistent across NEM jurisdictions (excluding regional Queensland and Tasmania) and for both electricity and gas customers.

Among residential customers, the main unprompted reason given for not going on to switch retailer or plan was that they were 'just comparing prices'. This reason was not mentioned in previous surveys at rates high enough to be recorded. The other main reasons given were similar to in previous years, including that 'their retailer or plan had a better price' and 'they were happy with their current retailer'.

Among small business customers, the main reasons given were that their 'current retailer had a better plan or deal' and that they doubted 'whether switching would make a difference'.

Figure 7.4 Main reason for not switching after investigating different offers and options (residential customers, NEM)



Base: Respondents who investigated options but hadn't changed their energy company (n=168 or 8%). Not asked in Tasmania or rest of Queensland. Q32. And what was the main reason why you investigated different offers and options but haven't changed your energy company or plan in the last 12 months?

Time spent investigating offers and options

The majority of customers who had investigated energy offers and options in the past 12 months had spent no more than two hours doing so. This includes 69 per cent of residential customers and 76 per cent of small business customers who had investigated their options in the past 12 months.

For residential customers who had investigated switching, 31 per cent spent less than an hour, 38 per cent spent one to two hours, 16 per cent spent three to four hours and 11 per cent spent five hours or more, while four per cent could not recall.

A number of customer segments were more likely than others to spend three or more hours investigating their options. These were customers who had one or more of the following characteristics:

- male;
- aged under 34; or
- living in a metropolitan area.

Conversely, customers who were more likely to spend less than an hour investigating their options were those who were not in paid employment; were aged 55 or over; or did not have a tertiary qualification.

Customers who had not investigated offers or options

Around 70 per cent of customers across NEM jurisdictions (excluding regional Queensland and Tasmania) had not investigated their options in the previous 12 months. This is despite awareness of retail energy choices being generally high. This was consistent with results in previous years.

Thirty one per cent of customers cited satisfaction with their current retailer as the main reason they did not investigate their options, compared with around a quarter in both

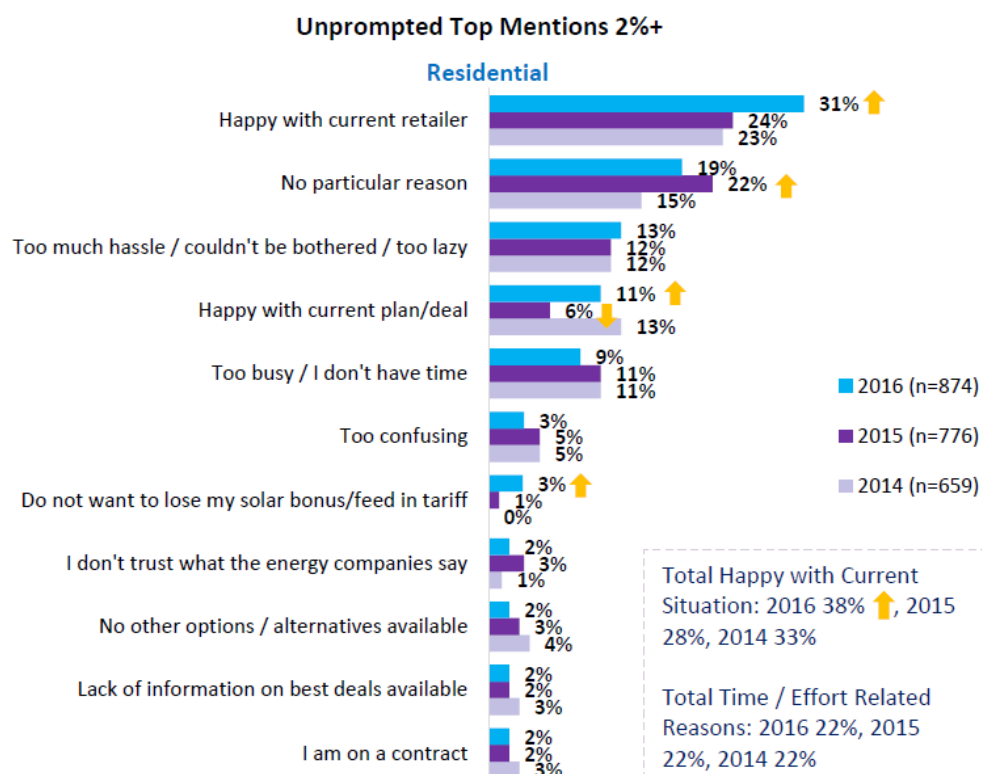
2014 and 2015 (see Figure 7.5). A further 11 per cent cited satisfaction with their current plan as the main reason they did not investigate their options. The proportion of residential customers who said it was too much hassle or they lacked the time remained consistent with previous years at 22 per cent.

Small business customers who had not investigated their energy offers or options most commonly gave the reason that they were too busy or lacked the time. Small business customers in South East Queensland and South Australia were significantly more likely to have stated that they 'want electricity and gas with the same supplier' as a reason for not investigating their options.

The trend in the reasons some customers are not investigating their options is consistent with findings set out in Chapter 8 that customers are generally more satisfied with their current arrangements than they were in 2014 or 2015. These can be seen as signs of effective competition.

Residential customers who were less likely to investigate their energy options included those who are less willing to take risks and those who are generally late adopters of new technologies. Few other demographic factors appeared to play a significant role in whether or not a customer was likely to have investigated their options. This suggests that for many customers it is their nature rather than their circumstances that is more likely to drive them to investigate their options.

Figure 7.5 Main reason for not investigating or switching (NEM)



Base: Participants who had not investigated offers and options or switched in the past 12 months.

Q33. Are there any reasons you haven't investigated different options or why you haven't changed your energy company or plan in the last 12 months? Any other reasons? MULTIPLE RESPONSE.

7.2.3 Ease of comparing offers and information sources used

Customers who had switched energy retailers or plans in the past 12 months were asked how easy or difficult it had been to compare offers when making their decision. Most said that they found it fairly easy or very easy, but not as easy as comparing other services such as car and home insurance and mobile phone plans. We note that switching rates in energy markets are higher than for these other services.⁵⁷ This suggests that some of the difficulties experienced by customers comparing energy offers may not present a significant barrier to switching.

In both electricity and gas markets across the NEM, 64 per cent of residential customers found it fairly or very easy to compare offers, which is similar to 2015. Seventy-two per cent of small business customers found it fairly or very easy, which was significantly higher than 2015. In the Australian Capital Territory, 31 per cent of residential customers said they found it very or somewhat difficult to compare offers, which is almost double the proportion across the other NEM jurisdictions where customers have an effective choice.

Customers who had switched retailer or plan were also asked about the information sources they had used when making their decision. Around three in 10 residential customers had used an internet search engine (such as Google), and around 13 per cent had used a price comparator website (such as iSelect). These results were similar for electricity and gas customers, for residential and small business customers, and across NEM jurisdictions. An exception to this was South East Queensland, where around 20 per cent of residential customers had used a price comparator website.

When asked to name price comparator websites, about 28 per cent of residential customers in NEM jurisdictions (excluding regional Queensland and Tasmania) could name at least one without prompting. Fifty-nine per cent said they did not know of any comparison sites, which was a significant decrease from 67 per cent in 2014 and 65 per cent in 2015. When prompted, around 10 per cent could name the relevant independent government comparator website in their jurisdiction. In individual jurisdictions, awareness of the government comparison website was highest in South Australia at 13 per cent and lowest in the Australian Capital Territory at three per cent.

Persistent low awareness of government comparison websites, together with the increased confidence to find the right information for those customers who used such sites, shows that customer engagement could be improved by promoting the sites and regularly updating them so that they are customer friendly.

7.3 Customer switching activity

As part of our assessment of customer activity we considered AEMO and AER customer transfer data as well as the results of the 2016 customer survey related to customer switching rates. Our customer survey asked participants about the number of

⁵⁷ For example, our survey found that across the NEM 33 per cent of residential customers had switched car insurance provider at least once in the past five years, 30 per cent had switched mobile phone provider, 17 per cent had switched banking provider, and 14 per cent had switched health insurance provider.

times they had switched energy retailer or plan both in the past 12 months and in the past five years to identify trends in customer switching activity.

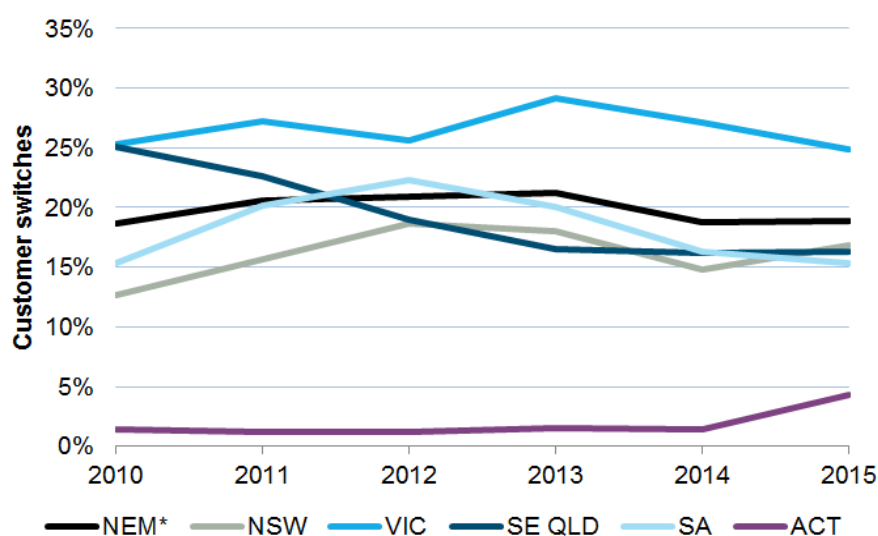
As Chapter 3 noted, customer switching rates should not be considered in isolation and should be looked at together with customer attitudes and outcomes. For example, while switching rates across the NEM are generally higher than in other industries and other countries,⁵⁸ the potential savings available to some customers who have not switched are higher than the savings they said they needed for switching to be worth their while. Customers' expectations of savings are generally used in their decision making, therefore, where savings are higher for customers to switch, this may be a sign of consumers' assessment of the costs of switching or their value of the time spent searching for offers and switching.

7.3.1 Switching trends over the past 12 months

Across NEM jurisdictions (excluding regional Queensland and Tasmania) small customer switching rates for electricity customers have remained steady, with 19 per cent of customers switching retailer in 2015. Customer transfer data from AEMO indicates that there have been some changes across NEM jurisdictions, with electricity customer switching rates increasing in New South Wales and the Australian Capital Territory, remaining steady in South East Queensland and continuing to decline in Victoria and South Australia.

Victoria remains the jurisdiction with the highest switching rate at 25 per cent. New South Wales, South East Queensland and South Australia have similar switching rates, all between 15 per cent and 17 per cent. The switching rate in the Australian Capital Territory remains the lowest of all NEM jurisdictions where customers have an effective choice of electricity retailer, although it has improved significantly from 1.5 per cent in 2014 to 4.3 per cent in 2015.

Figure 7.6 Annual electricity switching rates (NEM and by jurisdiction)



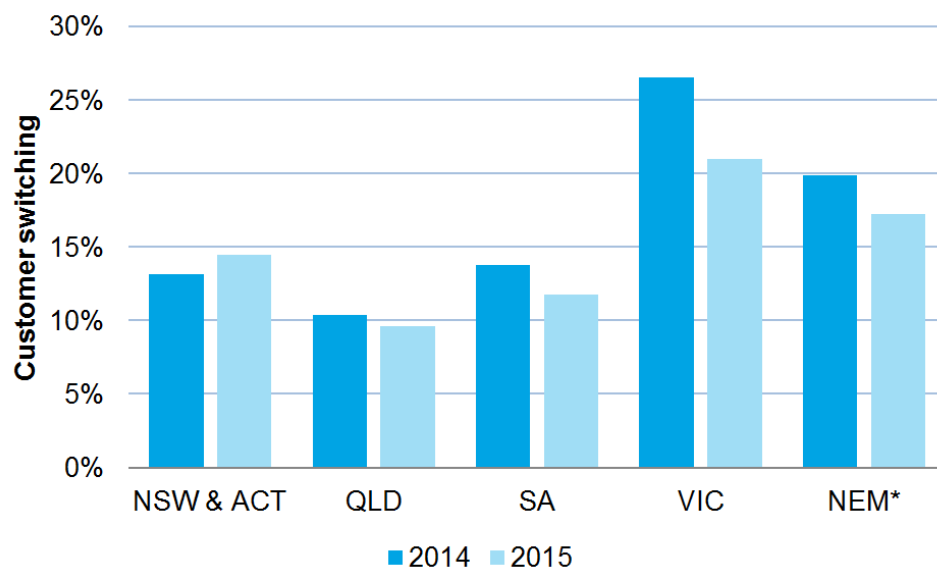
Note: * NEM excludes regional Queensland and Tasmania

Source: AEMC Analysis, AER and AEMO data

⁵⁸ Oxera, *Behavioural insights into Australian retail energy markets*, report to the AEMC, March 2016.

Data from AEMO and the AER indicates that between 2014 and 2015 the rate at which gas customers switched retailer decreased across NEM jurisdictions from around 20 per cent in 2014 to 17 per cent in 2015 (Figure 7.7). Gas customer switching rates increased in the combined jurisdictions of New South Wales and the Australian Capital Territory from 13 per cent to 14.5 per cent in 2015 and decreased slightly in Queensland and South Australia. Switching rates decreased significantly in Victoria between 2014 and 2015 from 26.5 per cent to 21 per cent, but remain above the average across NEM jurisdictions where customers have an effective choice of their retailer.

Figure 7.7 Annual gas customer switching (NEM, excluding Tasmania)



Note: * NEM excludes regional Queensland and Tasmania

Source: AEMC Analysis, AER and AEMO data

The 2016 customer survey found similar self-reported switching rates to those found in AEMO and AER data. Survey results show that around 24 per cent of residential customers in NEM jurisdictions (excluding regional Queensland and Tasmania) reported they had switched electricity retailer or plan at least once in the past 12 months. Among small business customers, around a fifth reported they had switched electricity retailer or plan in the past 12 months, which was down from 29 per cent in 2015.

Residential customers who had investigated their energy options were more likely to have switched energy retailers or plans in the past 12 months. Half those of those customers said they had switched, compared to only 15 per cent of customers who had not actively investigated their options. Residential customers who had been directly approached by a retailer were also more likely to have switched, as were those who had experienced a reduction in household income or unforeseen circumstances that severely affected their financial situation.

Figure 7.8 Customers who said they had switched retailer or plan at least once in past 12 months (NEM and by jurisdiction)

RESIDENTIAL	NEM		SEQ	NSW	ACT	VIC	SA
	2015 (n=1,808)	2016 (n=1,983)	2016 (n=425)	2016 (n=480)	2016 (n=200)	2016 (n=478)	2016 (n=400)
Electricity Company	15%	14%	10%	15%	5%	18%	11%
Electricity Plan	16%	14%	11%	15%	13% ↑	15%	13%
TOTAL Electricity	22%	24%	18%	25%	18%	27%	20%
Gas Company	17%	13% ↓	12%	10%	2%	17%	13%
Gas Plan	14%	12%	10%	13%	6%	12%	15%
TOTAL Gas	21%	20%	14%	17%	8%	24%	23%
TOTAL Electricity or Gas	24%	26%	18%	27%	19%	30%	23%
BUSINESS	NEM		SEQ	NSW	ACT	VIC	SA
	2015 (n=450)	2016 (n=452)	2016 (n=100)	2016 (n=100)	2016 (n=50)	2016 (n=101)	2016 (n=101)
Electricity Company	19%	12% ↓	8%	15%	4%	11% ↓	17%
Electricity Plan	17%	12% ↓	10% ↓	10%	4%	13%	19% ↑
TOTAL Electricity	29%	20% ↓	15% ↓	21%	8%	20% ↓	31% ↑
Gas Company	10%	6%	Not shown due to small sample sizes.				
Gas Plan	10%	5%					
TOTAL Gas	13%	8%					
TOTAL Electricity or Gas	29%	21% ↓	15% ↓	22%	8%	20% ↓	31% ↑

Base: All survey participants; participants with mains gas (and if small business gas bill). NB: Not asked in Tasmania or Rest of Queensland. Not asked in 2014.

Q17b. In the last 12 months, how many times have you changed the following?

7.3.2 Switching trends over the past five years

The 2016 customer survey also asked customers whether they had switched in the past five years. Just under half of all survey participants in NEM jurisdictions where customers can choose their electricity retailer said they had switched electricity retailer or plan at least once in the last five years and a similar proportion said they had switched gas retailer or plan. For small business customers, it was 48 per cent, compared to 57 per cent in both 2014 and 2015 (see Figure 7.9).

Figure 7.9 Customers who said they had switched at least once in the last five years (NEM and by jurisdiction)

RESIDENTIAL	NEM			SEQ	NSW	ACT	VIC	SA
	2014 (n=1,833)	2015 (n=1,808)	2016 (n=1,983)	2016 (n=425)	2016 (n=480)	2016 (n=200)	2016 (n=478)	2016 (n=400)
Electricity Company	48%	40% ↓	37% ↓	32%	36%	15%	43%	35%
Electricity Plan	39%	32% ↓	25% ↓	22%	26% ↓	23%	25% ↓	28%
TOTAL Electricity	60%	51% ↓	48%	42%	48%	32%	52%	49%
Gas Company	40%	35%	29% ↓	21%	25%	6%	36%	26%
Gas Plan	30%	24% ↓	19% ↓	23%	18%	8%	18%	22%
TOTAL Gas	49%	41% ↓	38%	27%	33%	13%	46%	38%
TOTAL Electricity or Gas	61%	52% ↓	49%	43%	49%	32%	54%	50%
BUSINESS	NEM			SEQ	NSW	ACT	VIC	SA
	2014 (n=380)	2015 (n=450)	2016 (n=452)	2016 (n=100)	2016 (n=100)	2016 (n=50)	2016 (n=101)	2016 (n=101)
Electricity Company	47%	45%	36% ↓	31% ↓	38%	4%	36%	41%
Electricity Plan	39%	33%	26% ↓	25% ↓	27%	14%	22%	35%
TOTAL Electricity	56%	56%	47% ↓	38% ↓	52%	16%	45%	57%
Gas Company	46%	19% ↓	11%	**Not shown due to small sample sizes.				
Gas Plan	50%	16% ↓	7%					
TOTAL Gas	56%	23% ↓	15%					
TOTAL Electricity or Gas	57%	57%	48% ↓	38% ↓	53%	16%	46%	59%

Base: All survey participants; participants with mains gas (and if small business gas bill). NB: Not asked in Tasmania or Rest of Queensland. **Gas results for small business consumers not shown due to small sample size. Q17a. In the past 5 years, how many times have you changed the following? Significance arrows across jurisdictions show significant upwards or downward trends across years within each jurisdiction.

The 2016 customer survey suggests that just over 50 per cent of customers in NEM jurisdictions (excluding regional Queensland and Tasmania) have not switched providers or plans in the last five years. This is cause for concern because most market offers include benefits that expire after one or two years. Customers who do not switch regularly may not be accessing the benefits of competition and find themselves paying prices toward the higher end of the range (see Chapter 11).

Some customers in NEM jurisdictions where residential customers can choose their electricity retailer have never switched electricity retailer or plan and remain on the standing offer.

7.3.3 Direct approaches by energy retailers

Across NEM jurisdictions (excluding regional Queensland and Tasmania) the proportion of customers who had been directly approached by energy retailers remained steady. Around 38 per cent of residential customers were approached by retailers in the past 12 months. Half of those customers said that they had been approached by one or two retailers, while about 25 per cent of customers were approached by three or four retailers.

Among small businesses around 52 said that they had been approached at least once over the past 12 months. Of those, 24 per cent has been approached by three or more retailers.

A much lower proportion of both residential and small business customers had been approached in South East Queensland and the Australian Capital Territory. In Victoria, the level of approaches to both customer segments has decreased each year since 2015

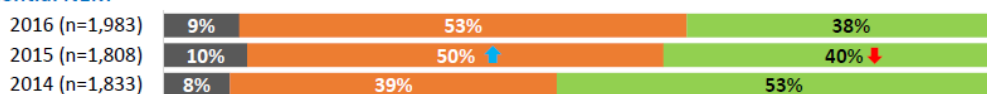
and was only slightly higher than the average for NEM jurisdictions where residential customers can choose their electricity retailer.

Approaches by retailers may lower customer expectations of the perceived or actual costs of switching by facilitating the switching process. This may or may not result in a good outcome for the customer. Where a customer is disengaged from the market, they are more likely to use heuristics and agree to offers via direct approaches without thoroughly considering the options available to them.

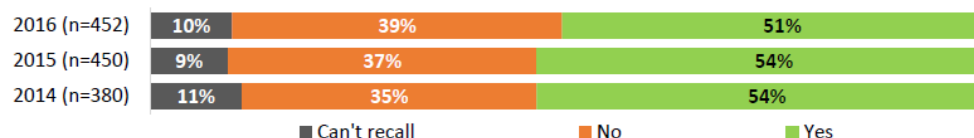
Residential customers in jurisdictions where residential customers can choose their electricity retailer were more likely to have been approached by an energy retailer if they owned their own home; have both gas and electricity; and have solar panels or solar hot water installed. Small business customers were more likely to have been approached if they had electricity bills of more than \$1,000 in the last quarter.

Figure 7.10 Trends in direct approaches by energy retailers in the past 12 months in line with trends in residential switching rates (NEM and by jurisdiction)

Residential NEM

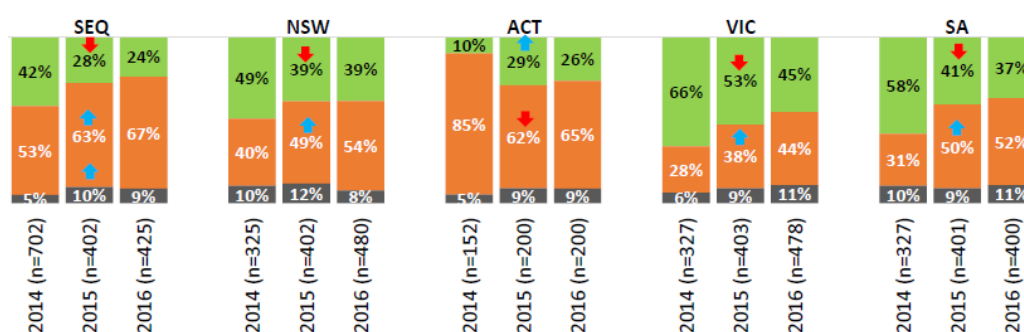


Business NEM

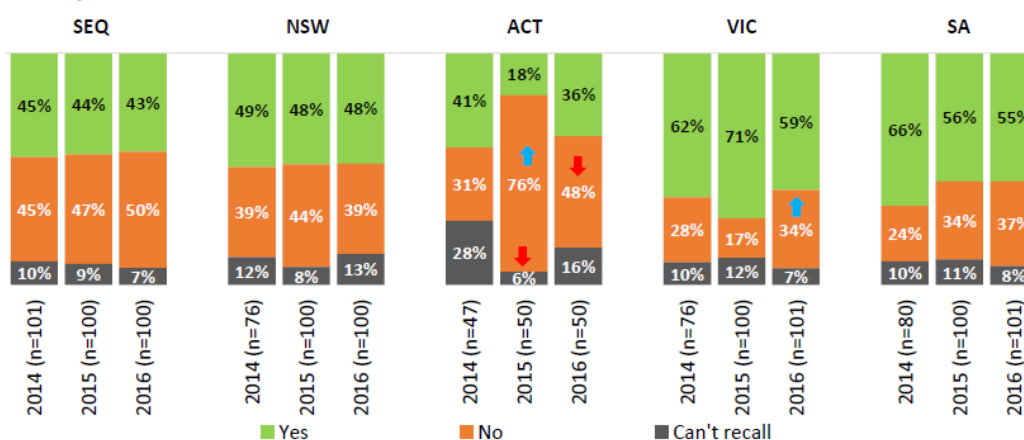


■ Can't recall ■ No ■ Yes

Residential by Jurisdiction



Business by Jurisdiction



Base: All survey participants.

Q18. In the past 12 months, have you been approached by an energy company offering to sell you electricity or gas?

7.4 Customer attitudes

The final aspect of customer engagement we explored was customer attitudes to switching. Considering customer attitudes alongside the switching trends can build a more comprehensive picture to assess whether or not switching activity is consistent with a competitive market. Customer attitudes can be influenced by a range of individual and external factors, such as value they place on the time spent to search for offers or changes in energy prices. These factors should be considered as part of a broad assessment of whether customer activity is consistent with an effectively competitive market.

The 2016 customer survey asked participants who had switched energy retailer or plan about their reasons for switching. It also asked all participants about their current interest in looking for a better deal, their confidence in their ability to find the right information to choose a suitable energy plan, and their attitudes to switching.

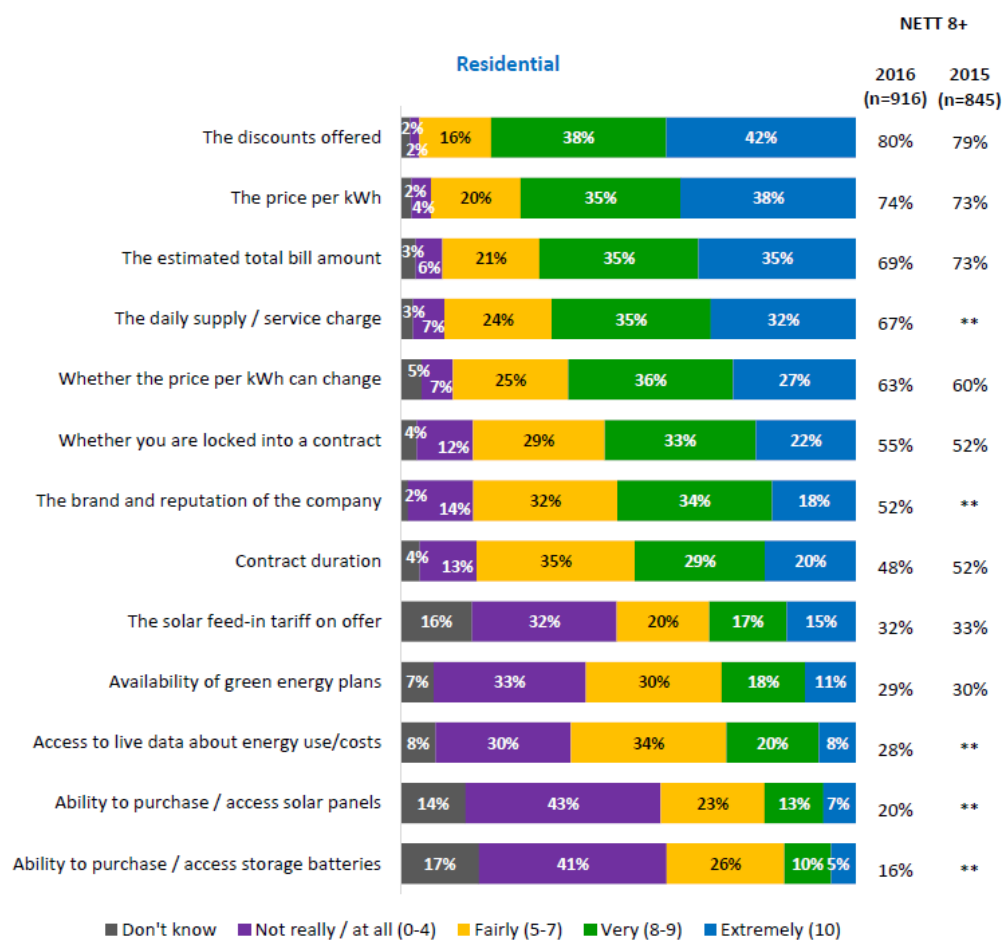
7.4.1 Reasons for customer switching

Around 70 per cent of customers across NEM jurisdictions (excluding regional Queensland and Tasmania) considered price related factors to be the most important reasons for switching energy retailer or plan. Around 10 per cent of residential customers considered service related factors to be the most important reasons to switch, including having had a poor experience or being dissatisfied with their previous retailer. These findings were consistent across the electricity and gas markets and the residential and small business customer segments.

In the 2016 survey we asked a new question about the importance of solar panels and storage batteries in considering whether to switch to a new retailer. Around 40 per cent of residential customers rated these factors as important or very important in deciding to switch.

Customers who had switched electricity retailer or plan in the past five years were given a list of factors that may have influenced their decision, and asked to rate how important these factors were in making the decision to switch. Most customers felt that the discounts offered, the price per kWh and the estimated total bill amount were the most important factors. Customers with solar panels considered that the solar feed in tariff was the next most important factor in their decision after the level of the discounts (see Figure 7.11).

Figure 7.11 Importance of factors in making the decision to switch electricity retailer or plan (NEM)



Base: Participants who switched their electricity company or plan. ** Question not asked in 2015.
 Q49. I am going to read out a range of factors. For each one please rate how important it was in your decision to switch your electricity company or plan where 0 means not at all and 10 means extremely important?

The 2016 survey asked customers in all NEM jurisdictions (including those in regional Queensland and Tasmania) how much they would have to save on their energy bills to seriously consider switching energy retailer or plan. For electricity bills, residential customers across the NEM said they would need to save \$217 a year on average, which is similar to the 2015 review. In individual jurisdictions, the average saving required to consider switching ranged from \$202 a year in New South Wales to \$238 a year in South Australia. Small business customers said they would need to save \$511 a year on average, a decrease from \$609 in 2015.

For gas bills, residential customers said they would need to save \$177 on average a year to consider switching, while small business customers said they would need \$325 a year. These findings are similar to the results found in 2015. For almost all customers, the saving needed to consider switching increased with the size of the customer's quarterly bill.⁵⁹

Chapter 11 discusses, a representative residential customer who switches from the median standing offer to the cheapest market offer can expect to save around \$140 in

⁵⁹ We note that the average savings customers said they would need may to consider switching may be overstated based on their perceptions of the time and effort required to switch.

South East Queensland, \$256 in New South Wales, \$312 in South Australia and \$383 in Victoria. This is more than the average saving customers in these jurisdictions said they would need to consider switching. Therefore, it suggests that many customers are not aware of the size of the savings available to them, and that customer outcomes could be improved if more customers were made aware of those potential savings.

7.4.2 Current switching behaviours and intentions

Across NEM jurisdictions (excluding regional Queensland and Tasmania) around half of customers surveyed said they were currently looking for a better energy deal or were interested in a better deal (see Figure 7.12). Around a third of customers said they were not interested in switching. The proportion of small business customers who said they were not interested in switching increased from 26 per cent in 2015 to 35 per cent in 2016.

In the Australian Capital Territory, residential customers who said they were currently looking or interested in a better deal decreased significantly from 63 per cent in 2015 to 46 per cent in 2016.

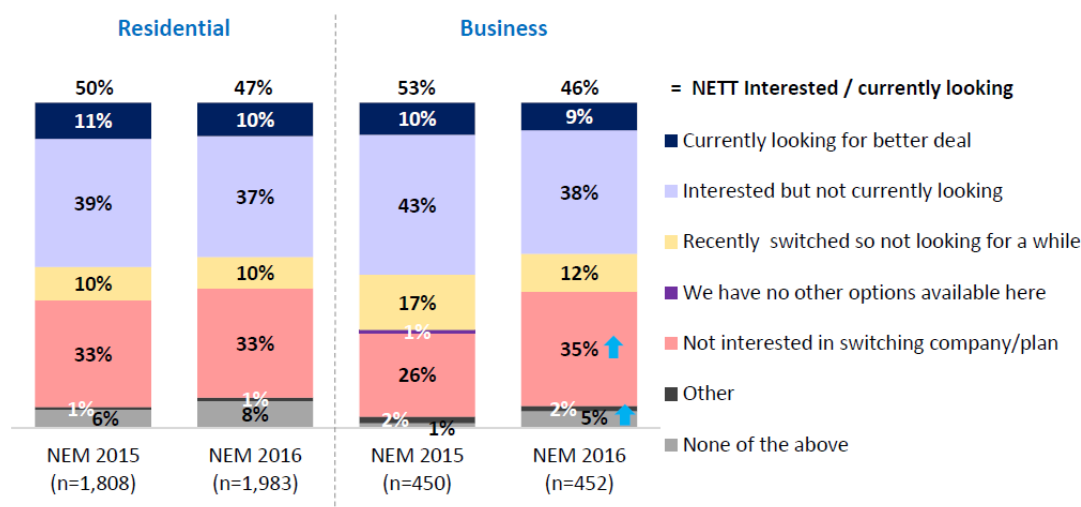
In regional Queensland and Tasmania, where there is no effective choice, 38 per cent of customers were currently looking for or interested in seeking a better energy deal. About 25 per cent said they were not interested in switching, while a similar proportion said they had no options available.

These findings indicate that a substantial number of customers are not looking to switch to a better deal. To some extent, this may be due to these customers' attitudes and behaviour. For example, while some customers know they can look for a better deal that may benefit them in the future, they may have certain expectations about how much money they have to save or the value of the time spent to investigate their options.

The 2016 survey identified that among residential customers, those who were not interested in looking for a better deal or switching were more likely to be female; aged 55 or over; have household incomes of less than \$50,000; have low-to-medium quarterly energy bills; or say they are risk averse or are among the last to take up new technologies.

Those who said they were interested in looking for a better energy deal were more likely to be aged under 55 years; have incomes higher than \$50,000; have switched energy company in the past five years; or say they are more comfortable taking risks or to be early adopters of new technologies.

Figure 7.12 Interest in looking for a better deal



Base: All survey participants.

Q34. When it comes to your household's energy company, which one of the following statements is most applicable to your household? NB: Results for 2014 are not shown due to change in question structure.

7.4.3 Confidence in switching

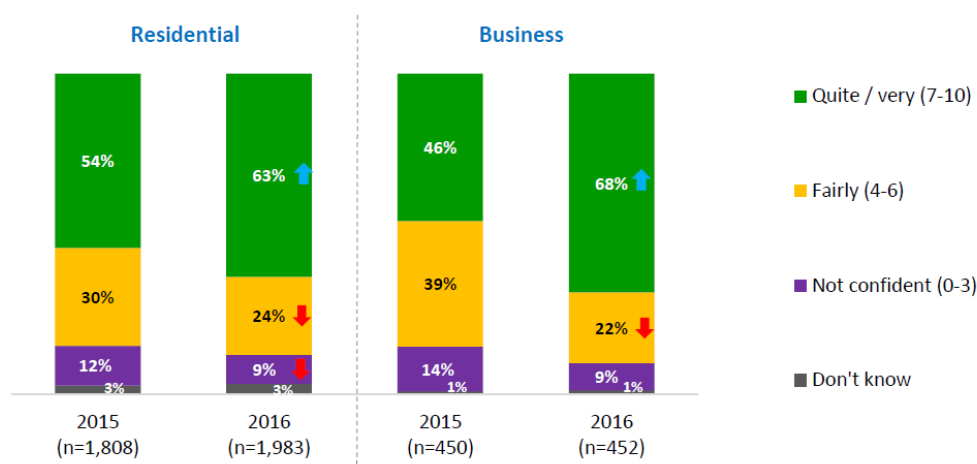
Customers across NEM jurisdictions (excluding regional Queensland and Tasmania) were asked how confident they were that they could find the right information to choose a suitable energy plan. They were also asked how confident they are to choose the right option for their household or business.

There has been a significant increase in the number of customers who are highly confident to find the right information or choose the right energy option for their household. Sixty three per cent of residential customers and 68 per cent of small business customers were highly confident they could find the right information, giving a rating of seven or more out of 10. This represents a significant increase, from 54 per cent and 46 per cent respectively in 2015. This finding was mostly consistent across jurisdictions and customer segments. The exception was in the Australian Capital Territory, where only 56 per cent of small business customers said they were confident they could find the right information.

While the customer survey results indicate that the majority of customers are confident to research the market to find a better deal, there is a very low awareness of comparison websites. This suggests that customers may be using information that comes easily to hand, provided by friends and family and only searching for offers or deals only from well-known providers.

Residential customers who had used a comparison website were significantly more likely to be highly confident in their ability to find the right information, as were residential customers who were under the age of 34. Further, customers with solar panels were more confident to find the right information or find the right energy option for their household than those without solar panels.

Figure 7.13 Level of confidence in finding the right information to choose a suitable energy plan



Base: All survey participants. NB: The question wording was changed in 2015 and as such, results are not directly comparable with 2014.

Q36. How confident are you that you could find the right information to help you choose an energy plan that suits your needs? Please use a scale where zero means not at all and 10 is extremely confident.

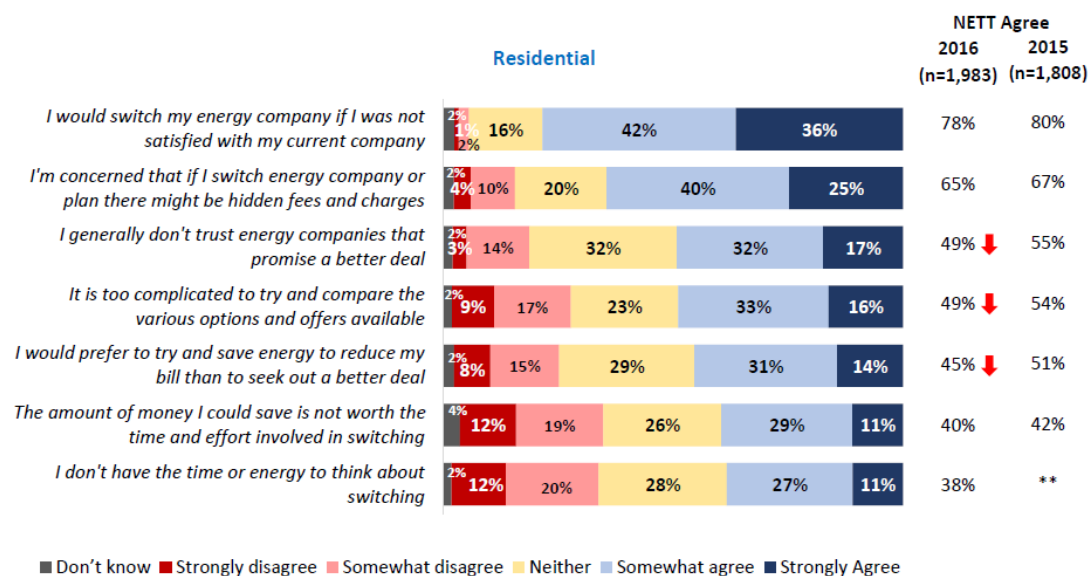
7.4.4 Attitudes to switching

Eighty per cent of customers surveyed agreed they would switch energy retailer if they were not satisfied with their current retailer. This finding was largely consistent with previous years and across jurisdictions. Around 60 per cent of residential and small business customers are concerned about hidden fees and charges if they did switch. For residential customers this is consistent with findings in the 2015 survey, but represents a fall from 68 per cent for small business customers.

In addition, there was a significant decrease between 2015 and 2016 in the proportion of residential customers who agreed:

- they generally don't trust energy retailers that promise a better deal;
- it is too complicated to compare the various offers and options; and
- they would prefer to save energy than seek out a better deal.

Figure 7.14 Attitudes to switching (NEM)



Base: All survey participants. ** Question not asked in 2015. NB: Results for 2014 are not shown due to change in question structure.

Q59. Do you agree or disagree with the following things some people have said about switching their energy company or plan? For each one, tell me if you agree or disagree strongly or just somewhat. Firstly...

8 Customer outcomes

Where competition is effective, customers who engage and participate in the market are generally satisfied with the outcomes they receive and those customers that are not satisfied should feel that they can switch to a different retailer or plan that better suits their needs.

To assess energy markets' performance against this indicator, we used the findings from the 2016 customer survey⁶⁰ and other data⁶¹ to examine the following aspects of customer outcomes:

- *customer satisfaction* with the level of market choice available, their current energy retailers, quality of customer service, value for money and the switching experience;
- *customer complaints* to retailers and energy ombudsmen; and
- *customer disconnection rates*.

This chapter summarises our main findings, and then discusses our findings on each of these aspects in more detail – including the 2016 survey results and trends for both retail electricity and gas markets across the NEM. We also outline any significant differences between jurisdictions, between the residential and small business customer segments, and where data is available, across and within customer segments.

Note that for this chapter, the findings that are presented for NEM jurisdictions only include jurisdictions where residential customers have an effective choice of electricity retailer. Those jurisdictions are South East Queensland, New South Wales, the Australian Capital Territory, Victoria and South Australia. Findings for regional Queensland and Tasmania are reported separately where relevant.⁶² The findings for the vulnerable customer segment are provided in Chapter 6.

It is important to note that while customer satisfaction levels do provide a useful measure of competition, they should not be looked at in isolation. They should be considered in conjunction with the other market indicators for this review and the factors that can influence customers' preferences and perceptions.

8.1 Main findings

We found that there are high levels of customer satisfaction in electricity and gas markets in Victoria, New South Wales, South East Queensland and South Australia. Customer satisfaction in the Australian Capital Territory is improving but generally lower in other jurisdictions where customers have an effective choice of their electricity

⁶⁰ Newgate Research, *Consumer research for 2016 nationwide review of competition in retail markets*, research report, report to the AEMC, June 2016.

⁶¹ Complaints and disconnection data from the jurisdictional ombudsman offices, retailers, the Victorian ESC and the AER.

⁶² Including regional Queensland and Tasmania in the NEM-wide results would reduce clarity in those results because customers living there have no or limited choices available to them, naturally impacting their answers to many questions, such as related to investigating and switching energy plans.

retailer. For regional Queensland and Tasmania customer satisfaction remained lower, consistent with the low level of choices in these markets.

Generally customers across jurisdictions (excluding regional Queensland and Tasmania) are satisfied with their current energy retailer, the quality of customer service they receive and the value for money they provide. They are also generally satisfied with their level of choice of energy retailers and plans.

Customer satisfaction with electricity retailers increased significantly in 2016 across NEM jurisdictions (excluding regional Queensland and Tasmania), as did satisfaction with the quality of customer service and the value for money they provide. Customer satisfaction with gas retailers remained strong but steady.

In regional Queensland and Tasmania satisfaction with electricity retailers was lower than in other jurisdictions, with about half of the customers surveyed indicating they were satisfied. Around eight in 10 customers in these markets indicated it was important for them to have a choice of electricity companies.

The proportion of customers who said that they were dissatisfied with their electricity or gas retailer was similar to 2015 levels. Across NEM jurisdictions (excluding Tasmania and regional Queensland) seven per cent of residential customers were dissatisfied with their current electricity retailer and nine per cent were dissatisfied with their current gas retailer. Around a quarter of small business customers in these jurisdictions were dissatisfied with their electricity retailer while only seven per cent were dissatisfied with their gas retailer.

In the financial year of 2014-15, there was an overall decrease in the number of electricity and gas complaints to energy ombudsmen, while over the same period there has been an increase in complaints to energy retailers.

The increase in complaints to retailers does not necessarily reflect increasing customer dissatisfaction. As the AER noted, it is mainly due changes in how complaints are reported by retailers, increased referrals from ombudsmen to retailers, and improvements in how some retailers engage with and handle customer complaints.

8.2 Customer satisfaction

The 2016 customer survey asked customers to rate their satisfaction with the level of choice of energy retailers and energy plans in their state. It also asked about their satisfaction with their current retailer, including with the level of customer service and value for money it provides. Customers who had switched retailer or plan in the last five years were also asked to rate their satisfaction with their decision to switch and the switching process.

As noted, customer satisfaction levels can be affected by factors unrelated to the competitive landscape of energy markets. Satisfaction levels may be biased due to consumers being overoptimistic about their existing energy tariff or because they may overestimate the costs and hassle involved in switching. Other behavioural factors include that in jurisdictions with no competition or few providers, there may be some anchoring effect for customers being less satisfied with level of choice because their friends or colleagues in other states have more. In addition, a customer's evaluation of

their retailer may be based on different reference points and perceptions, for example, experience with previous retailers on billing issues or loyalty to a particular brand.

Box 8.1 International comparisons

As part of this year's review, we aligned some of our customer research questions with those asked in a similar survey by the New Zealand Electricity Authority. The overall aim was to be able to have some cross country comparisons of customer experiences.

Our 2016 customer survey results for customer satisfaction are comparable with those found by the New Zealand Electricity Authority, with around 72 per cent of New Zealand customers satisfied with their electricity retailer. Also comparable to our customer switching findings, around 20 per cent of New Zealand residential customers switched their electricity retailer and most thought it was easier than switching insurance or banks but harder than mobile phones and their internet provider.⁶³

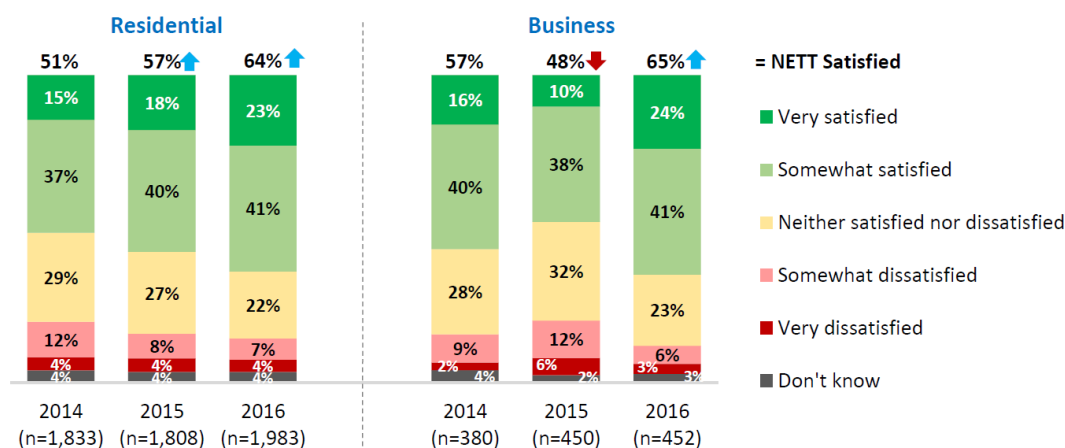
8.2.1 Satisfaction with level of choice in the market

Customer satisfaction with the level of choice of energy retailer and plans increased over the last three years across all NEM jurisdictions (excluding regional Queensland and Tasmania). The proportion of residential customers satisfied with the level of choice increased from 57 per cent in 2015 to 64 per cent in 2016. For small business customers, satisfaction levels increased from 48 per cent in 2015 to 65 per cent in 2016 (see Figure 8.1).

The proportion of residential customers who were dissatisfied remained steady at around 11 per cent, while there was a decline for small business customers from 18 per cent in 2015 to nine per cent in 2016.

⁶³ UMR Research, *International comparison of activity, behaviour and attitudes towards the electricity industry: A quantitative study*, report to the Electricity Authority, January 2016, New Zealand.

Figure 8.1 Satisfaction with the level of market choice (NEM (excluding regional Queensland and Tasmania))



Base: All survey participants.

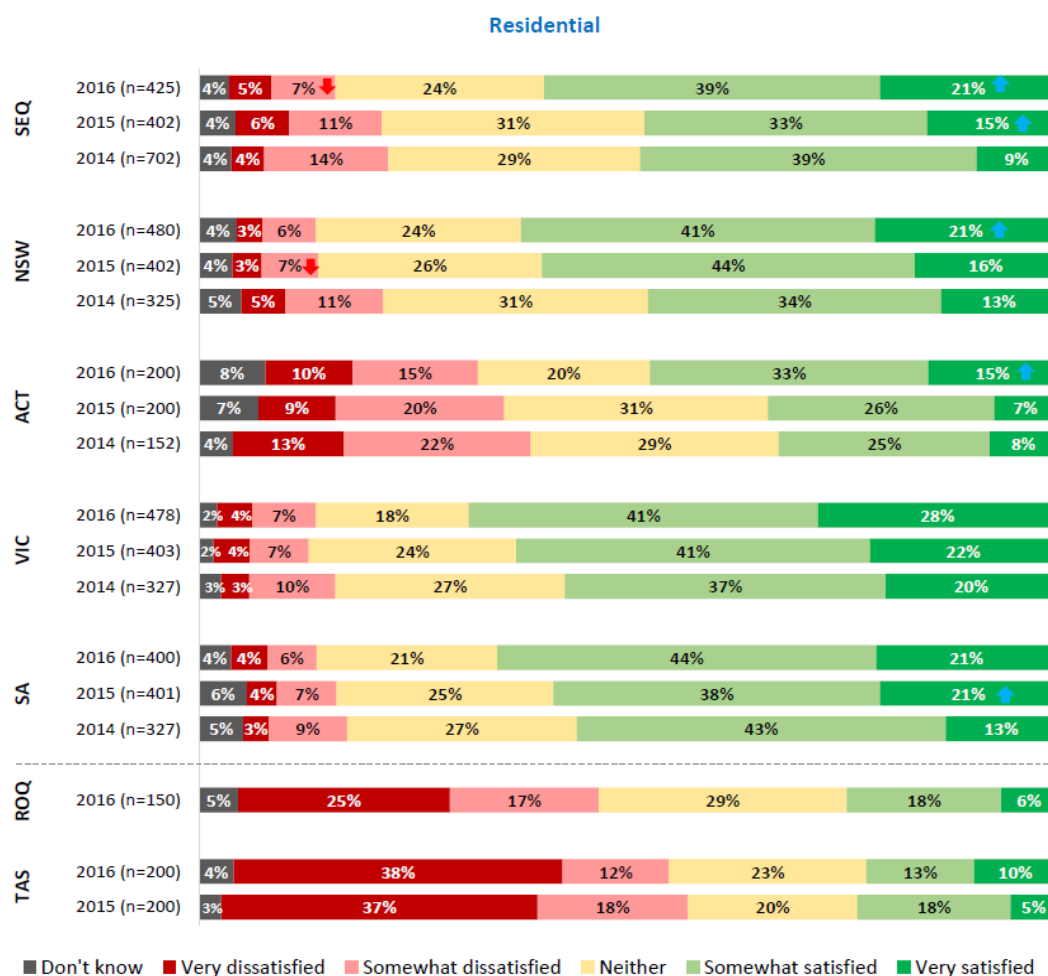
Q16. When it comes to energy companies and energy plans, how satisfied are you with the level of choice available to consumers in your state/territory?

In the Australian Capital Territory, the residential customers satisfaction rate increased to 48 per cent in 2016, from 33 per cent in 2015 (see Figure 8.2). However, it continued to be much lower than in the other jurisdictions where customers have a choice. This is consistent with the lower levels of choice between retailers and plans available in this jurisdiction.

Customer satisfaction with the level of choice was also much lower in regional Queensland and Tasmania. Around 24 per cent of residential customers in these jurisdictions said they were satisfied with the current level of choice available to them, while almost 50 per cent said they were not satisfied. Satisfaction rates among small business customers were similar.

Customers in regional Queensland and Tasmania have indicated that they would like to have more choices between energy retailers available to them. In the 2016 customer survey regional Queensland and Tasmanian customers were asked how important it would be to have a choice between a number of different electricity companies and plans. Almost eight in 10 customers in these markets considered that it was 'very or extremely important' for them to have a choice of electricity companies. A lower level of importance was placed on having a choice of plans and offers, with around 55 per cent of residential customers in Tasmania and 60 per cent of residential customers in regional Queensland indicating that choice of plans was very or extremely important.

Figure 8.2 Satisfaction with level of market choice (residential customers, by jurisdictions)



Base: All survey participants. NB: Tasmania and rest of Queensland not surveyed in 2014.

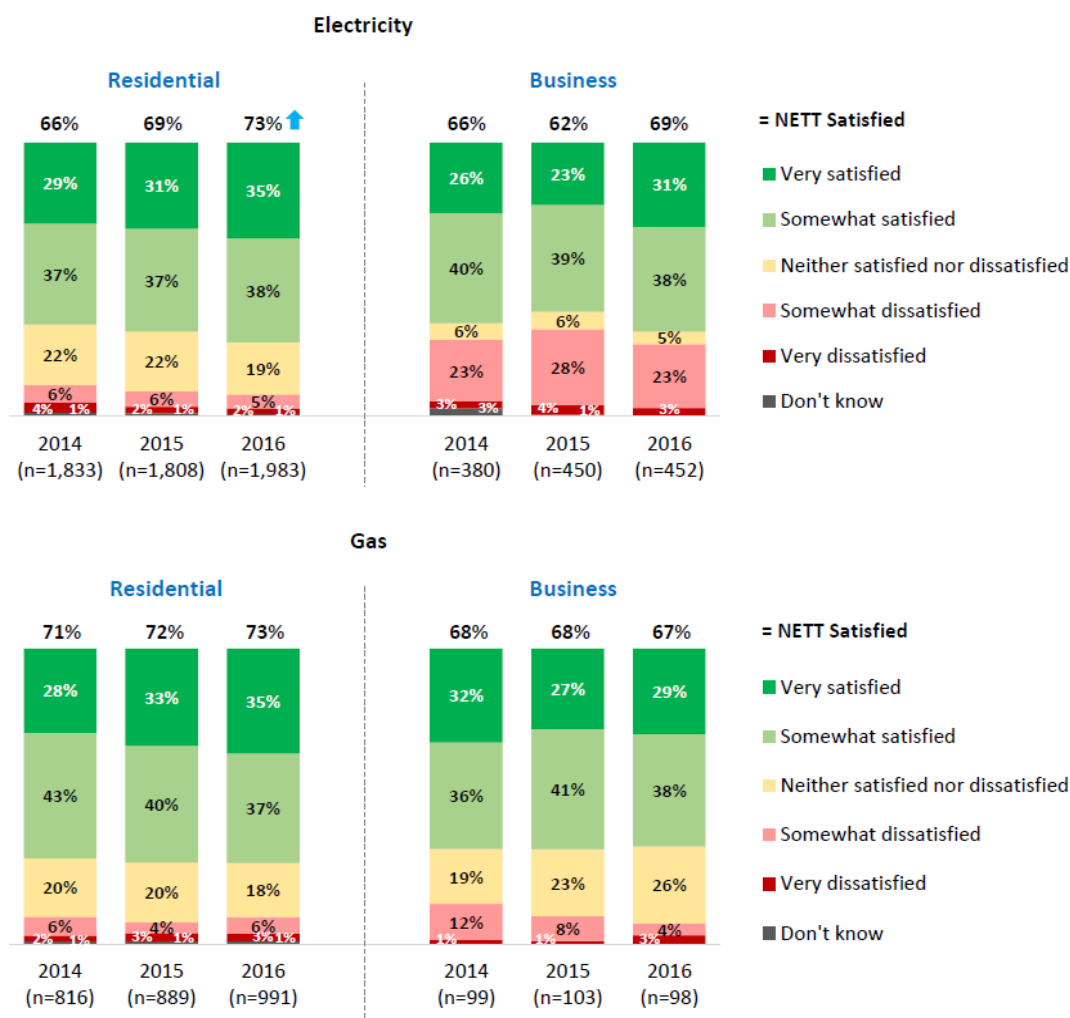
Q16. When it comes to energy companies and energy plans, how satisfied are you with the level of choice available to consumers in your state/territory?

Note: Proportions in charts do not add to the same level due to rounding.

8.2.2 Satisfaction with current retailer

Customer satisfaction with their retailer increased across the NEM (excluding regional Queensland and Tasmania) (see Figure 8.3). The overall proportion of residential customers satisfied with their electricity retailer in these jurisdictions increased from 66 per cent in 2014 to 73 per cent in 2016. Similarly, the proportion of electricity small business customers that were satisfied increased from 66 per cent in 2014 to 69 per cent this year.

Figure 8.3 Satisfaction with current energy retailer (NEM (excluding regional Queensland and Tasmania))



Base: All survey participants.

Q2/Q7. And how satisfied are you with your current electricity (Q2) / gas (Q7) company?

The proportion of residential and small business electricity customers that were satisfied with their retailer was fairly consistent across the NEM jurisdictions (excluding regional Queensland and Tasmania) however the increase in customer satisfaction were larger in Victoria, the Australian Capital Territory and South Australia.⁶⁴

In regional Queensland and Tasmania, customer satisfaction with their electricity retailer increased in 2016 but remained lower than other jurisdictions.

Satisfaction with gas retailers remained fairly steady across NEM jurisdictions (excluding regional Queensland and Tasmania) at 73 per cent for residential customers and 67 per cent for small business customers.

There are a proportion of customers across the NEM that are less likely to be satisfied with their current electricity and gas retailer. These segments included customers who had one or more of the following characteristics:

- aged between 35 and 54;

⁶⁴ Newgate Research, *Consumer research for 2016 nationwide review of competition in retail markets*, research report, report to the AEMC, June 2016.

- renting;
- have an electricity spend of \$500 or more per quarter; and
- from vulnerable middle income.⁶⁵

Almost eight in 10 customers said that they would be willing to switch if they were not happy with their current energy retailer.

8.2.3 Satisfaction with quality of customer service

The 2016 customer survey asked participants to rate the overall quality of customer service provided by their electricity or gas retailer.

The survey results show that customers, across the NEM (excluding regional Queensland and Tasmania) are generally happy with the quality of customer service provided by their energy retailer (see Figure 8.4). For electricity customers, around seven in 10 rated the quality of customer service received from their retailer as 'good to excellent' from a scale of 0 - 10. The Australian Capital Territory experienced a significant improvement in the proportion of residential customers that are generally happy with their retailer, with 55 per cent of customers giving a rating of eight or more out of 10 in 2016 compared with 43 per cent in 2015.

In gas markets across jurisdictions (excluding regional Queensland and Tasmania), satisfaction with the quality of customer service remained steady among residential customers, while the proportion of small business customers who rated it 'good to excellent' increased.

In both electricity and gas markets, regional Queensland and Tasmania experienced increases in 2016 of the proportion of residential and small business customers that rated the quality of customer service received from their retailer as 'good to excellent'.⁶⁶

⁶⁵ Refer to Chapter 6 for vulnerable customer segments.

⁶⁶ This relates to the proportion of customers who rated their satisfaction with quality of customer service provided by their retailer as seven or more out of 10.

Figure 8.4 Overall rating of quality of customer service provided by energy company (NEM (excluding regional Queensland and Tasmania))



Base: All survey participants; participants with mains gas. NB: In 2015 the wording was changed slightly to include the word 'customer' and as such, results are not directly comparable with 2014. / Q3/Q8. How would you rate the overall quality of customer service provided by your electricity (Q3) / gas (Q8) company?

8.2.4 Satisfaction with value for money

For the 2016 customer survey, participants were asked to rate the overall value for money of the products and services provided by their electricity or gas company.

Residential customer perceptions of the value for money have improved year on year (see Figure 8.5). The proportion of customers across the NEM (excluding Tasmania and regional Queensland) who rated the value for money provided by their electricity retailer as 'good to excellent' increased from 50 per cent in 2014 to 62 per cent in 2016. There was a significant increase from 37 per cent in 2015 to 59 per cent in 2016 in the proportion of small business electricity customers who considered that they were obtaining value for money from their retailer.

Gas residential customers who rated the value for money provided by their retailer as 'good to excellent' improved slightly from 61 per cent to 66 per cent in 2016.

Figure 8.5 Overall rating of value for money provided by a customer's energy company (NEM (excluding regional Queensland and Tasmania))



In the Australian Capital Territory customer ratings of the overall value for money provided by their electricity retailer improved in 2016, although satisfaction is still lower than the other NEM jurisdictions where customers have an effective choice of electricity retailer. In 2016, 59 per cent of residential electricity customers rated their satisfaction with the value for money provided from their electricity retailer as 'good to excellent' compared to 45 per cent in 2015. Customer ratings of value for money provided by their gas retailer remained steady at 45 per cent but were also lower than other NEM jurisdictions.⁶⁷

The 2016 customer survey found that there were no significant differences in satisfaction levels between those residential customers who had switched retailer or plan in the past 12 months and those who had not. For example, 66 per cent of residential electricity switchers rated the value for money provided by their retailer as good to excellent compared to 61 per cent of non-switchers.⁶⁸ This finding is consistent with the 2016 customer survey finding that the most common reason why residential

⁶⁷ Newgate Research, *Consumer research for 2016 nationwide review of competition in Retail Markets*, research report, report to the AEMC, June 2016, p.42.

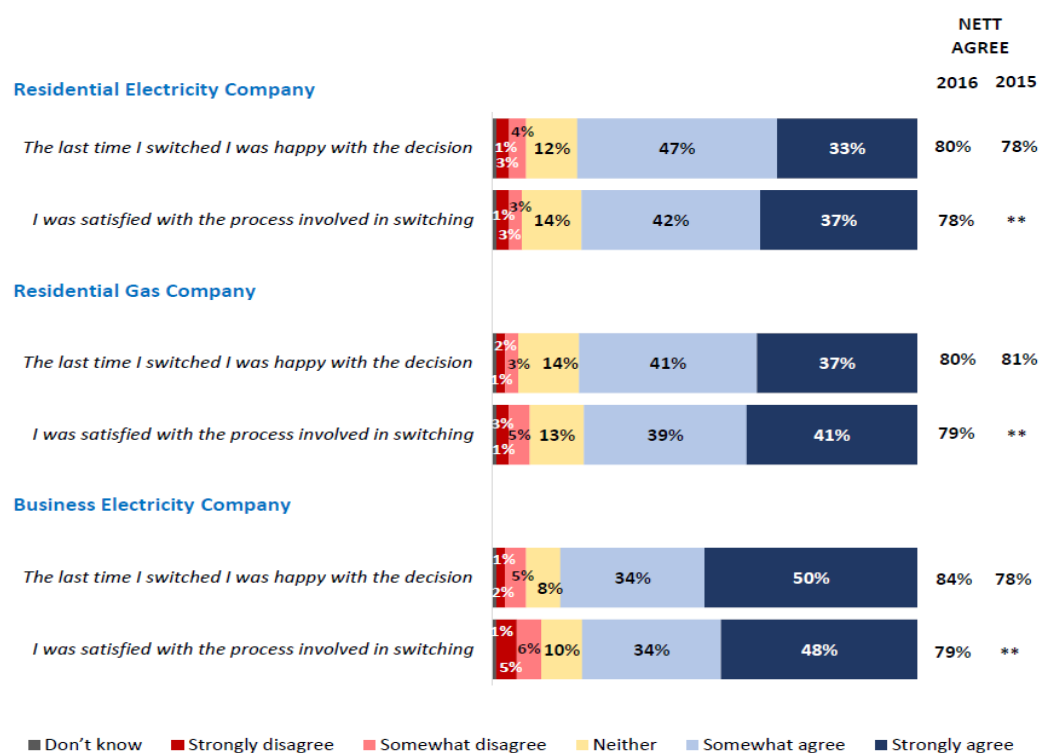
⁶⁸ Ibid.

customers had not investigated offers or options in the last 12 months was because they were happy with their current retailer (refer to Chapter 7.2.2).

8.2.5 Satisfaction with decision to switch and switching process

Across the NEM, the majority of customers who had switched energy retailer in the past 12 months were happy with their decision to switch and the switching process (Figure 8.6). For example, among residential electricity customers who had switched electricity retailer, 80 per cent were happy with their decision, and 78 per cent were happy with the process. The findings were similar for residential customers who had switched gas company, and small business customers who had switched electricity company.

Figure 8.6 Satisfaction with switching energy retailer (NEM, excluding regional Queensland and Tasmania)



Base: Participants who had switched their electricity company or plan (Residential: 2015 n=845, 2016 n=916, Business: 2015 n=236, 2016 n=201).

NB: Question not asked in 2014. ** Question not asked in 2015.

Q50. And having switched your electricity company or plan, to what extent do you agree or disagree with the following? For each one, tell me if you agree or disagree strongly or just somewhat.

Base: Participants who had switched their gas company or plan (2015 n=304, 2016 n=351). NB: Question not asked in 2014. ** Question not asked in 2015. Business results not shown due to small sample size: 2016 (n=14).

Q55. And having switched your gas company or plan, to what extent do you agree or disagree with the following? For each one, tell me if you agree or disagree strongly or just somewhat.

8.3 Customer complaints

Customers may have ongoing issues with their energy retailer about a range of issues, including billing discrepancies, wrongful disconnections and other transfer related issues, credit arrangements, poor customer service, and the retailer's marketing practices. In this case, they can lodge a complaint directly with their retailer. If this does not produce a satisfactory outcome, they can take the complaint to their jurisdictional

energy ombudsman or state-based fair trading agency or the ACCC depending on the nature of the complaint.

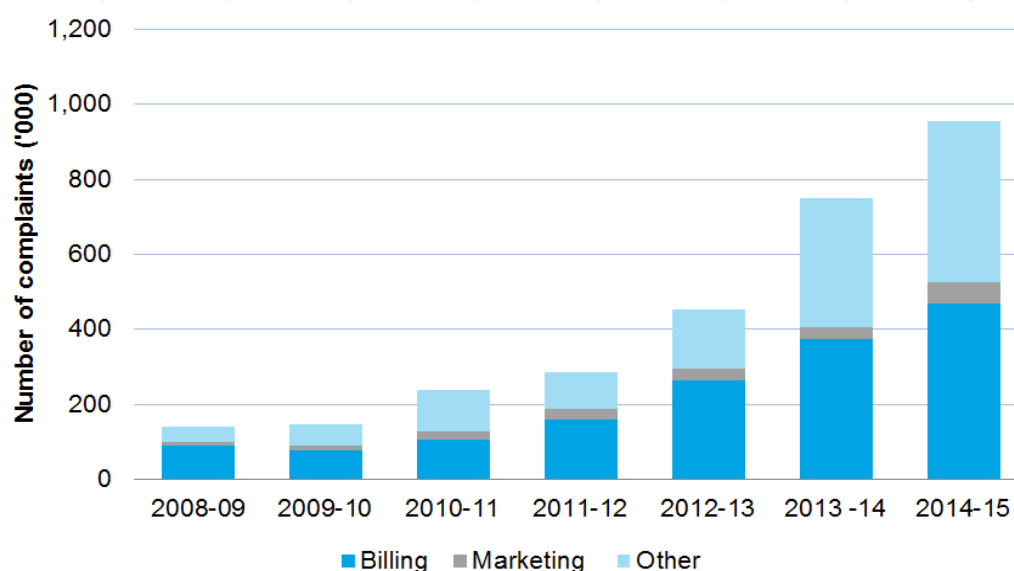
We analysed information on customer complaints made to retailers and to ombudsmen for the 2014-15 financial year, and compared our findings to previous years.⁶⁹

Complaints to retailers

In all NEM jurisdictions (including regional Queensland and Tasmania), the total number of customer complaints made directly to energy retailers increased by around 27 per cent in 2014-15, and has increased year-on-year since 2008-09 (Figure 8.7).

The two biggest categories of complaints to energy retailers are ‘billing’ and ‘other’, which both increased by around 26 per cent since 2013-14. The category of ‘other’ complaints generally relates to customer service, privacy issues, failure to respond to complaints, health and safety and customer transfer issues.

Figure 8.7 Total complaints to energy retailers (complaint type, all jurisdictions, including regional Queensland and Tasmania)



Source: Data from AER and Victorian ESC, AEMC analysis.

The two biggest categories of complaints were ‘billing’ and ‘other’.⁷⁰ Complaints in these categories have increased by around 27 per cent in 2014-15. ‘Marketing’ complaints⁷¹ increased by 62 per cent in 2014-15, but remained a relatively low percentage of complaints overall.

In all jurisdictions except Victoria, the number of complaints to retailers increased in 2014-15. In New South Wales, South Australia and Queensland, the largest increases were in ‘billing’ complaints. The AER attributes these increases to changes in the

⁶⁹ Data about customer complaints that are handled by the retailers are reported to the AER (for New South Wales, South Australia, the Australia Capital Territory, Tasmania and now Queensland) and to the Victorian ESC. Data about customer complaints that are handled by the relevant Ombudsman offices is recorded and reported in their annual reports.

⁷⁰ ‘Other’ complaints generally relate to customer service, privacy issues, failure to respond to complaints, health and safety and customer transfer issues.

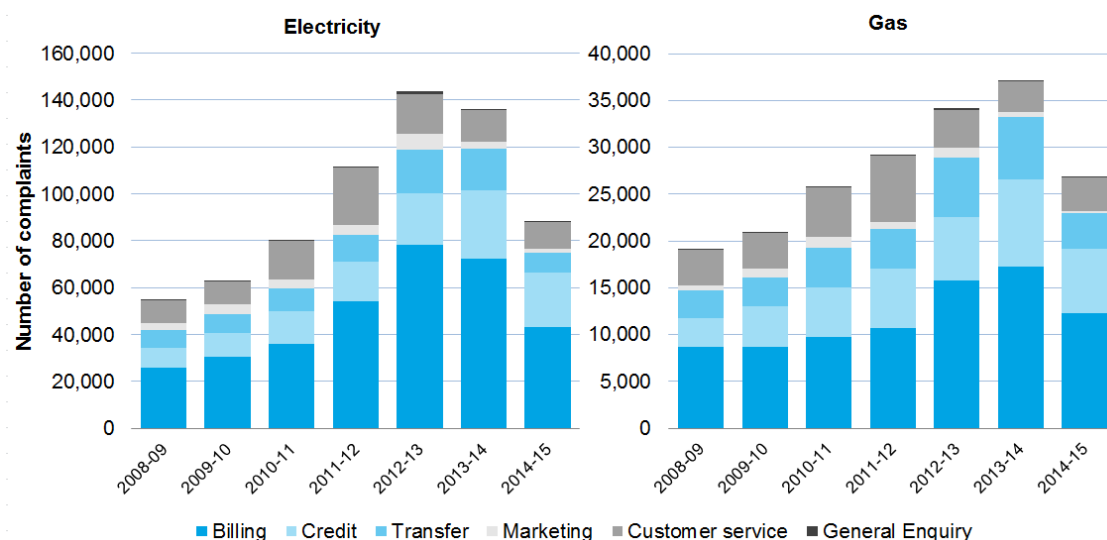
⁷¹ This includes complaints about sales practices, advertising, contract terms and misleading conduct.

methodology some retailers use to report complaints, and they do not necessarily reflect a significant increase in customer issues.⁷² Complaints to retailers in Victoria decreased by one per cent in 2014-15.

Complaints to energy ombudsmen

Total complaints to energy ombudsmen for electricity and gas decreased in 2014 -15. This can be attributed to the resolution by retailers of the issues associated with upgrades to their retailer billing systems. Figure 8.8 shows that electricity complaints fell by around 35 per cent while gas complaints fell by 28 per cent.

Figure 8.8 Total complaints to Ombudsmen (complaint type, electricity and gas, all jurisdictions)



Source: Data from jurisdictional ombudsman offices, AEMC analysis.

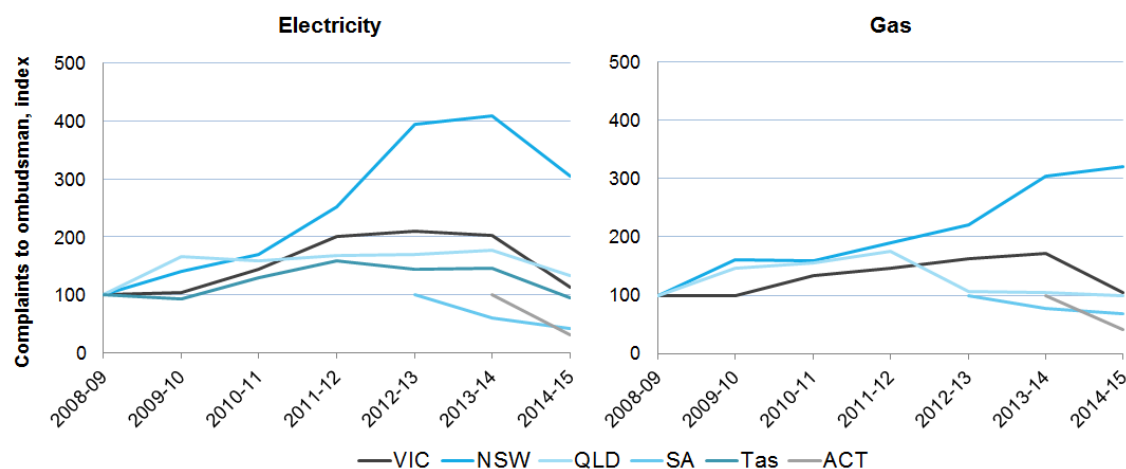
The four largest categories of complaints to ombudsmen are those related to billing, credit, transfers and customer service. Significantly fewer complaints were made about these issues in 2014-15 compared with those in the previous reporting period, for both electricity and gas. Across the NEM, complaints about:

- billing fell by around 40 and 29 per cent for electricity and gas respectively;
- credit fell by around 21 and 25 per cent;
- transfers fell by around 51 and 44 per cent; and
- customer service fell by around 13 per cent for electricity and increased by about eight per cent for gas.

Figure 8.9 shows indexes of electricity and gas complaints to ombudsman offices in the NEM jurisdictions from 2009. It shows that electricity complaints in all jurisdictions fell in 2014-15. Gas complaints fell, to varying degrees, in all states except New South Wales where they increased by about 14 per cent.

⁷² AER, *Annual Report on the Performance of the Retail Energy Market, 2014-2015*.

Figure 8.9 Index of total complaints to ombudsman (electricity and gas, by jurisdiction)



Source: Data from jurisdictional ombudsman offices, AEMC analysis.

Total complaints to retailers and ombudsmen

In all NEM jurisdictions, total complaints to retailers have increased over the past two years while total complaints to ombudsmen stabilised and then decreased (Figure 8.10). These trends can be attributed to three factors.

The increase in complaints to retailers was mainly about billing issues, which in turn was primarily driven by the rollout of new billing systems by some retailers. The changes in billing systems resulted in system-wide errors that affected customer bills, and led to a surge in complaints from customers about delayed bills, estimated bills and billing errors. These issues have largely been resolved.

The second is improvements in the handling of customer complaints at the retailer level, in particular by increasing their focus on customer service and internal dispute resolution mechanisms.⁷³

The final factor is improvements in ombudsman processes and system to more efficiently identify, register and investigate customer complaints. These include modifications and upgrades to business intelligence and reporting systems.⁷⁴ This has improved the capacity of some ombudsman offices to refer more customers back to their retailers if they have not already attempted resolution through retailer channels.

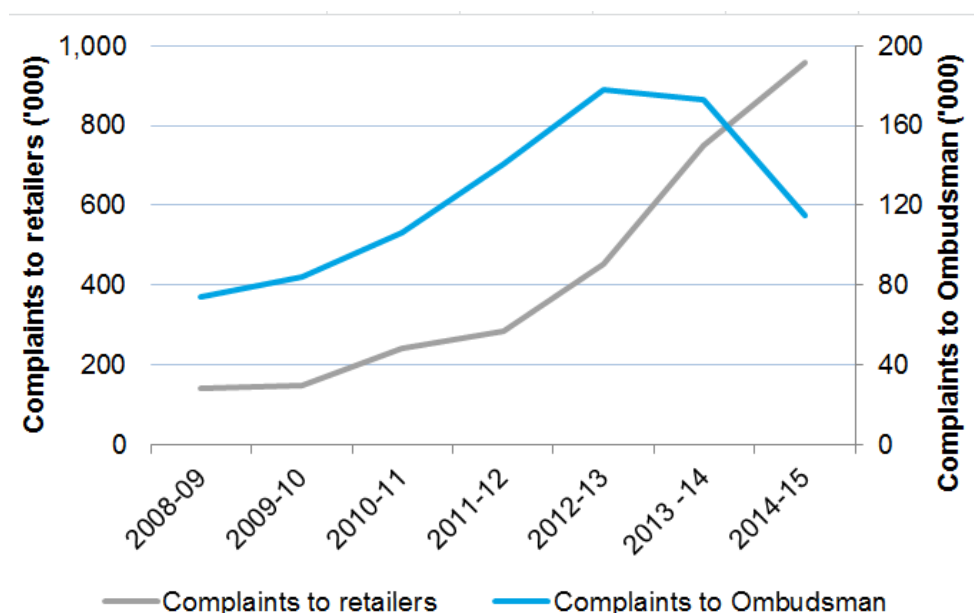
The stabilisation of energy prices across jurisdictions over the last few years may also have contributed to the fall in complaints to ombudsmen.

It is expected that these trends will continue as large retailers (which represent the bulk of complaints) attempt to retain customers.

⁷³ Energy and Water Ombudsman Victoria, *Annual Report 2014-15*, p. 6; Ombudsman Tasmania, *Annual Report 2014-15*, p. 17.

⁷⁴ Energy and Water Ombudsman Victoria, *Annual Report 2014-15*, p. 6; Energy and Water Ombudsman South Australia, *Annual Report 2014-15*, p. 7; Energy and Water Ombudsman Queensland, *Annual Report 2014-15*, p. 4.

Figure 8.10 Total complaints to retailers and ombudsmen (all NEM jurisdictions)



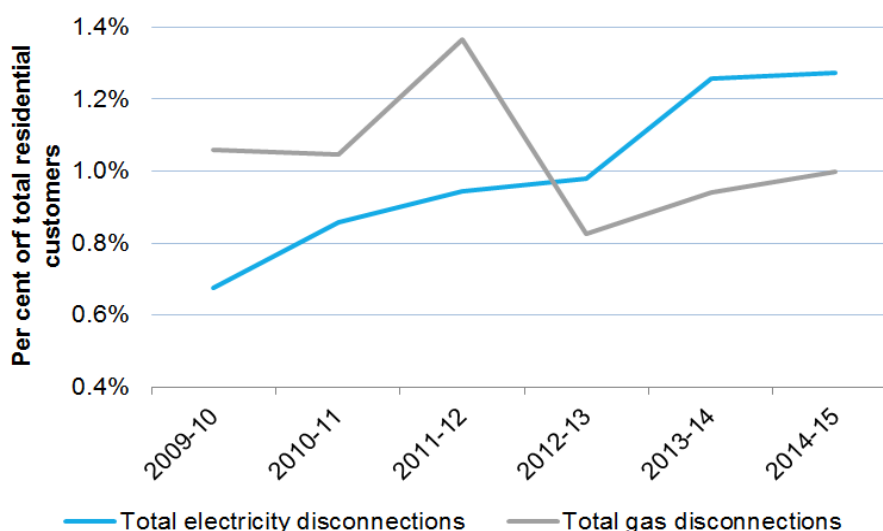
Source: Complaints to retailer data from AER and Victorian ESC, AEMC analysis. Complaints to ombudsmen from jurisdictional ombudsman offices, AEMC analysis.

8.4 Customer disconnections

The total number of electricity and gas customer disconnections in all jurisdictions increased in 2014-15 (Figure 8.11). Electricity disconnections have continued to increase each year since 2009-10.

The proportion of residential electricity customers disconnected exceeded that for gas customers who were disconnected since 2012-13. The significant drop in gas disconnections between 2011-12 and 2012-13 was driven by a fall in reported disconnections in New South Wales and the Australian Capital Territory.

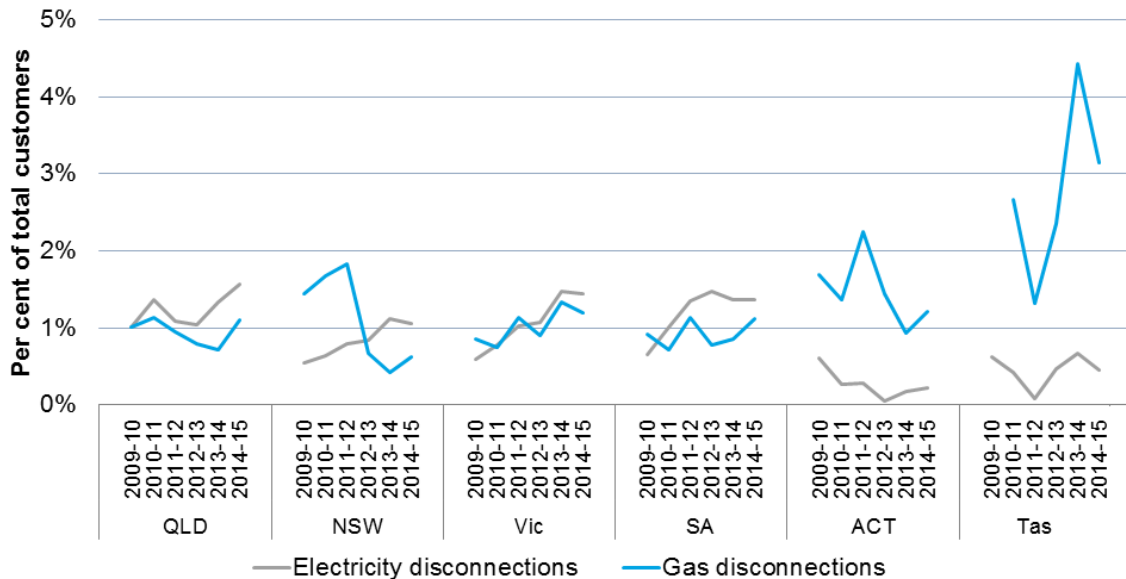
Figure 8.11 Total annual disconnection rate (residential customers, electricity and gas, all jurisdictions)



Source: AER data, AEMC analysis

Figure 8.12 shows the trends in residential customer disconnections relative to the customer base in each NEM jurisdiction, for retail electricity and gas markets. In the electricity market in 2014-15, the rate of disconnections increased significantly in Queensland, and decreased in Tasmania. The rates in the other jurisdictions remained relatively steady.

Figure 8.12 Disconnection rates (residential customers, by jurisdiction, electricity and gas)



Source: AER and Victorian ESC data, AEMC analysis. Gas disconnection data for Tasmania sourced from Tasmanian Economic Regulator's Performance Report for 2014-15.

9 Barriers to entry, expansion or exit

Where competition is effective, barriers to entry, expansion and exit are generally low. This places competitive pressures on existing retailers to charge prices that reflect efficient costs and to improve their market offers.

To consider energy markets' performance against this indicator, we examined:

- *Evidence of entry, expansion or exit* – the number of brands and retailers that have entered and exited a market since the 2015 review and how retailers' market shares have changed in this period.
- *Retailer views on barriers* – retailers' perceptions of the relative ease of market entry, expansion and exit, the barriers they face in 2016 and the relative importance of these barriers.
- *Liquidity and derivative ratios* – to assess retailers' access to hedging products to manage their risk exposure as they enter or expand in different markets.

We looked at the electricity and gas markets separately, and considered barriers in urban and rural markets separately in some NEM jurisdictions. We based our analysis on the findings of a retailer survey and subsequent interviews conducted by Farrier Swier Consulting,⁷⁵ as well as data from AEMO, the ASX and AFMA.

This chapter summarises main findings for both the electricity and gas markets, and then discusses our findings and analysis for each market in more detail. Box 9.1 clarifies how we have considered barriers to entry or expansion for the purposes of this review.

Box 9.1 Barriers to entry or expansion for the purposes of this review

Barriers to entry or expansion can be defined in several ways.⁷⁶ For the purposes of this report, such barriers are taken to be impediments to entry or expansion to a market which adversely affect competition. We differentiate between inefficient barriers to entry and structural barriers to entry. Inefficient barriers to entry are those which impede entry into a market, and in relation to which government intervention can lead to more competitive outcomes. In contrast, structural barriers to entry are those in relation to which no intervention can lead to improvements in competitive outcomes.

We also differentiate between these barriers and the ordinary, efficient costs of doing business which do not lead to distortions in the market and therefore do not adversely affect competition. Retailers identified a number of these ordinary and efficient costs as barriers. For the purposes of factual accuracy, retailer comments in this regard have been reported. However, we have not considered these costs to be barriers to entry or expansion for the purposes of this report.

⁷⁵ See Farrier Swier Consulting, *2016 Energy Retailer Survey Report*, report to the AEMC, March 2016. This report is available from the AEMC website.

⁷⁶ D Carlton and J M Perloff, *Modern Industrial Organisation*, 4th ed, Pearson and Addison Wesley, 2005, p. 76.

9.1 Main findings

Retail electricity markets

Findings in relation to the overall ease of entry and ease of expansion in retail electricity markets were comparable to last year's survey.

Retailer activity in 2015 and potential retailer activity in the next one to two years suggest that any barriers to entry and expansion in New South Wales, Victoria, South Australia and South East Queensland may not be significant. In these jurisdictions, several new retailers entered the market during the year, and a number said they were considering entering or expanding in the next one to two years. Second tier retailers also increased their market share.

The absence of new entrants in regional Queensland, the Australian Capital Territory and Tasmania indicates that the barriers to entry and expansion may be more substantial in these jurisdictions.

The barriers most frequently identified by retailers varied across the jurisdictions. Price regulation was the most frequently mentioned barrier in regional Queensland, the Australian Capital Territory and Tasmania, and the second most frequently mentioned in South East Queensland.

Policy and regulatory risk was the most frequently mentioned barrier in several jurisdictions, including in Victoria, where it stemmed from the differing consumer protection arrangements in the state and uncertainty related to the Victorian ESC's review of hardship schemes. Retailers in several other jurisdictions also identified barriers stemming from consumer protection, concession and hardship schemes.

Tightening wholesale market conditions and/or access to hedging products were the most frequently identified barriers in South Australia and New South Wales, and were also commonly mentioned in Queensland, Tasmania and the Australian Capital Territory. The causes of these conditions are complex and vary across jurisdictions.

Data from financial markets on the turnover and ratios of electricity market derivatives also shows that there has been an overall reduction in trade and access to hedging contracts across the NEM, likely driven by the removal of the carbon tax.

Retail gas markets

There were few material changes in overall ease of entry and ease of expansion in retail gas markets in the NEM over the past year.

Across all jurisdictions, only two retailers entered the retail gas market in 2016. These were Red Energy and Dodo, and both entered the New South Wales market. However, Lumo Energy, which is owned by the same parent company as Red Energy, already provided gas to New South Wales customers.

Retailers most frequently identified access to gas, the small size of the demand base, and the price of gas as barriers to entry and expansion in 2015. Other commonly mentioned barriers were access to transmission capacity and requirements related to gas short-term trading markets.

Retailer comments indicate that barriers to entry and expansion in Victoria, New South Wales, South East Queensland and South Australia are not so significant. These

comments included views on the relative ease of entry and expansion, the likelihood of reduction in incumbents' market share, and the impact of future changes in gas markets.

Based on our findings for all competitive indicators together, the Commission considers there is sufficient competition in the New South Wales retail gas market for customers to benefit from the removal of retail price regulation from 1 July 2017. Price deregulation would remove a barrier to entry and expansion in the New South Wales retail gas market in both urban and regional areas.

Retailers currently face specific additional barriers to entry and expansion in some regional areas. In New South Wales, price deregulation would remove a barrier to entry and expansion. The New South Wales Government, AEMO and ACCC (as well as the AEMC) have been undertaking additional work which can address other barriers. The Commission notes that the small customer base in regional New South Wales may prevent price deregulation from having as significant an impact in regional New South Wales as it is likely to have in urban New South Wales. One retailer already indicated in our February 2016 survey that it intends to enter major regional centres in the next one to two years.

Retailer comments about the relative difficulty of entry and expansion and the outlook for these in the next one to two years indicates that barriers in regional Queensland, the Australian Capital Territory and Tasmania are more difficult to overcome. Only one retailer is considering entry into Australian Capital Territory retail gas markets and no retailers are considering entry or expansion into the Tasmanian retail gas market.

Retailers also suggested that the AEMC's East Coast Wholesale Gas Market and Pipeline Frameworks Review, which will promote transparency in pricing and access to pipelines in larger markets, may ease barriers to entry in all jurisdictions. However, retailers also considered that current liquid natural gas (LNG) projects have the potential to impact the availability of gas for domestic consumption, and therefore may lead to increases in barriers to entry and expansion in the next one to two years.

9.2 Evidence of entry, expansion and exit in electricity markets

We looked at changes in the number of active retailers in electricity markets, and in the relative market share of the big three retailers⁷⁷ or the incumbent retailers to provide an objective indication of entry, expansion and exit in a market. Our findings are detailed in Appendix B.

Notably, there were six new entrants in New South Wales, five new entrants in Victoria, and two new entrants in South Australia. In South East Queensland, there was one new entrant, and the Red Energy brand began operating, however the Lumo brand, which is owned by the same parent company, was already operating in the jurisdiction.

There were no new entrants in regional Queensland, the Australian Capital Territory and Tasmania.

⁷⁷ The term 'the big three' refers to energy retailers AGL Energy, Origin Energy and EnergyAustralia.

We also found that in all jurisdictions except Tasmania, the big three retailers lost market share to ‘second tier retailers’.⁷⁸ In New South Wales, second tier retailers increased their market share by approximately 33 per cent over the year, although this was from a low base. In Queensland, Victoria and South Australia, they increased their market share by approximately 10 per cent. Chapter 10 provides more detail on these findings in wholesale electricity markets.

There was one retailer exit in 2016.

GoEnergy was suspended from the NEM by AEMO for failing to comply with its prudential requirements, and its authorisation to trade in the NEM was revoked on 2 April 2016. GoEnergy's approximate customer base of 2,200 customers were subsequently transferred to other retailers under the Retailers of Last Resort (RoLR) scheme overseen by the AER.⁷⁹

In addition, Neighbourhood Energy, which is a subsidiary of Alinta Energy, no longer serves electricity customers in Victoria. However, this does not affect the market landscape as these customers have now been transferred to Alinta Energy, which was already operating as a retail electricity provider in Victoria.

9.3 Retailer views on barriers in electricity markets

To explore retailers’ views on the barriers to entry, expansion and exit in electricity markets, we asked the participants in our retailer survey (among other things) to:

- rate the ease of entry, expansion and exit in each NEM jurisdiction;
- identify any factors they see as barriers to entry and expansion within and across these jurisdictions in 2016, and any additional barriers to entry and expansion in rural and regional areas;
- rate the importance of economies of scale, economies of scope and generation interests for their ability to compete effectively in each of the jurisdictions where they operate; and
- provide their opinion on the outlook for barriers to entry and expansion in electricity markets in the next one to two years.

9.3.1 Ease of entry, expansion and exit in electricity markets

On average, retailer ratings of the ease of entry in retail electricity markets in 2016 were similar to last year’s, with only minor differences (Figure 9.1). As in 2015, New South Wales and Victoria were rated the easiest NEM jurisdictions to enter, and regional Queensland and Tasmania the most difficult. These results correlate to the jurisdictions

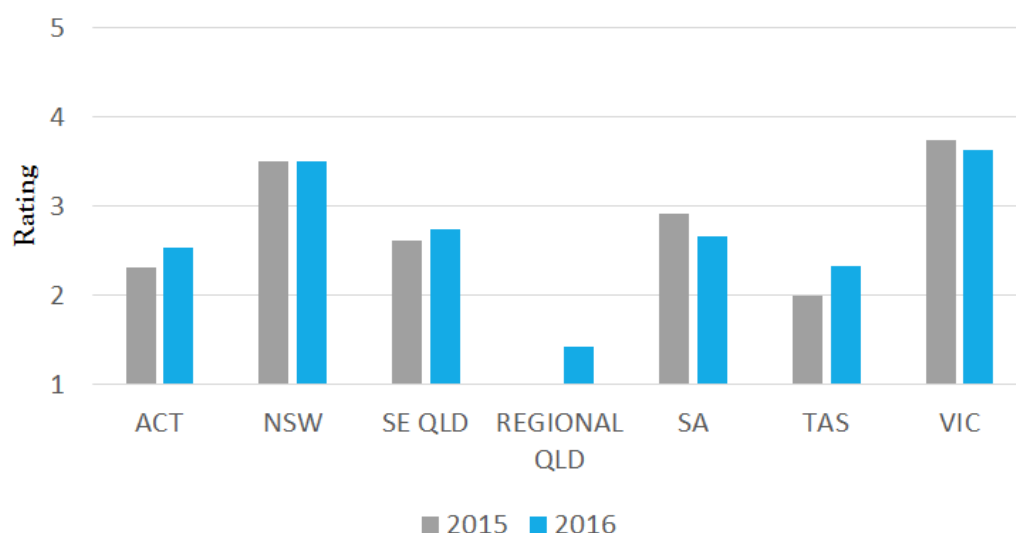
⁷⁸ The term ‘second tier’ is used to refer to retailers such as Alinta, Blue NRG, Click Energy, CovaU, Diamond Energy, M2 (Dodo Power and Gas and Commander Power and Gas), Go Energy, Lumo, Momentum, Pacific Hydro, Powershop, People Energy, Red Energy, Sanctuary Energy, Simply Energy, and Tas Gas Retail.

⁷⁹ Australian Energy Regulator, *Former GO ENERGY electricity customers transferred to new retailers, media release*, 2 April 2016, <https://www.aer.gov.au/news-release/former-go-energy-electricity-customers-transferred-to-new-retailers>.

with the highest and lowest numbers of active retailers and new entrants in 2016 (see section 9.2 and Appendix D).

Retailers rated the ease of entry in South Australia and Victoria as slightly more difficult than last year. They suggested this was due to difficult wholesale market conditions, the associated difficulty of accessing reasonably-priced hedging products, and interconnector limitations in South Australia, and due to policy and regulatory risks in Victoria.

Figure 9.1 Ease of entry, average rating (electricity, by jurisdiction)

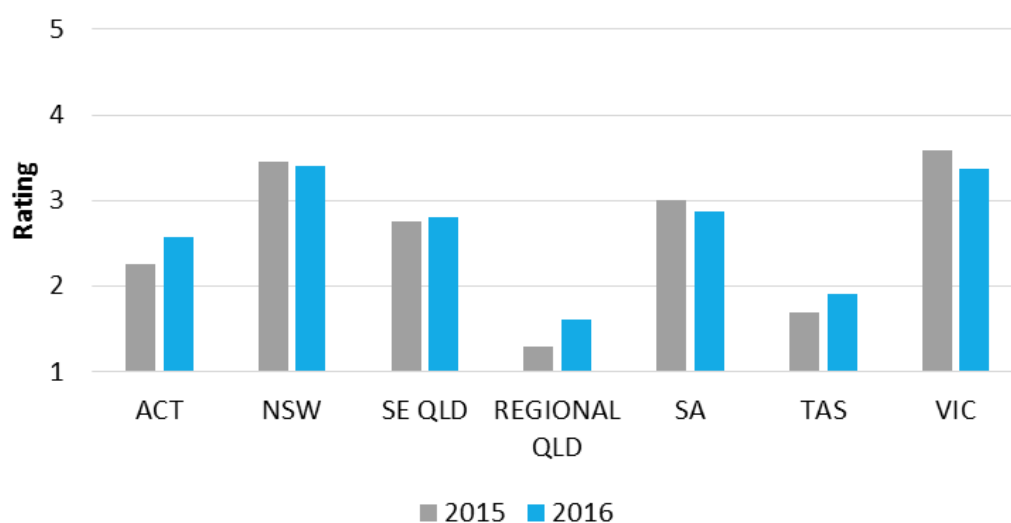


Note: Rating scale: 1 non-existent; 2 minimal; 3 moderate; 4 high; 5 very high; an overall rating of '1' was given for regional Queensland in 2015.

Source: Farrier Swier 2016

Retailer ratings of the ease of expansion in 2016 are also fairly consistent to those in 2015. As for ease of entry, retailers rated New South Wales and Victoria the easiest jurisdictions to expand in, and regional Queensland and Tasmania the most difficult.

Figure 9.2 Ease of expansion, average rating (electricity, by jurisdiction)



Note: Rating scale: 1 non-existent; 2 minimal; 3 moderate; 4 high; 5 very high.

Source: Farrier Swier 2016.

9.3.2 Barriers to entry and expansion in electricity markets

Price regulation was the factor most frequently identified by retailers as a barrier to entry in the NEM jurisdictions where regulation will remain after 1 July 2016 – regional Queensland, the Australian Capital Territory and Tasmania. In the other jurisdictions, the most frequently identified barriers were policy and regulatory risks, wholesale market conditions and access to competitively-priced hedging products, or environmental policies (Table 9.1).

Table 9.1 Factors identified by retailers as barriers to entry and expansion (electricity, by jurisdiction)

State	Most frequent	Second most frequent	Third most frequent
Australian Capital Territory	Policy/regulatory risks (53%) Retail price regulation (53%)		Wholesale market conditions/Access to hedging products (33%)
New South Wales	Access to hedging products (40%)	Environmental policies (38%)	Prudential/Credit support arrangements (33%)
South East Queensland	Policy/regulatory risks (63%)	Retail price regulation (56%)	Prudential/credit support arrangements (47%)
Regional Queensland	Retail price regulation (75%)	Policy/Regulatory risks (71%)	Access to hedging products (40%) Prudential/Credit support arrangements (40%)
South Australia	Wholesale market conditions/Access to hedging products (53%)	Environmental policies (50%)	Prudential/Credit support arrangements (40%)
Tasmania	Retail price regulation (73%)	Wholesale market conditions/Access to hedging products (50%)	Policy/regulatory risks (40%)
Victoria	Policy/regulatory risks (53%)	Environmental policies (38%)	Prudential/Credit support arrangements (33%)

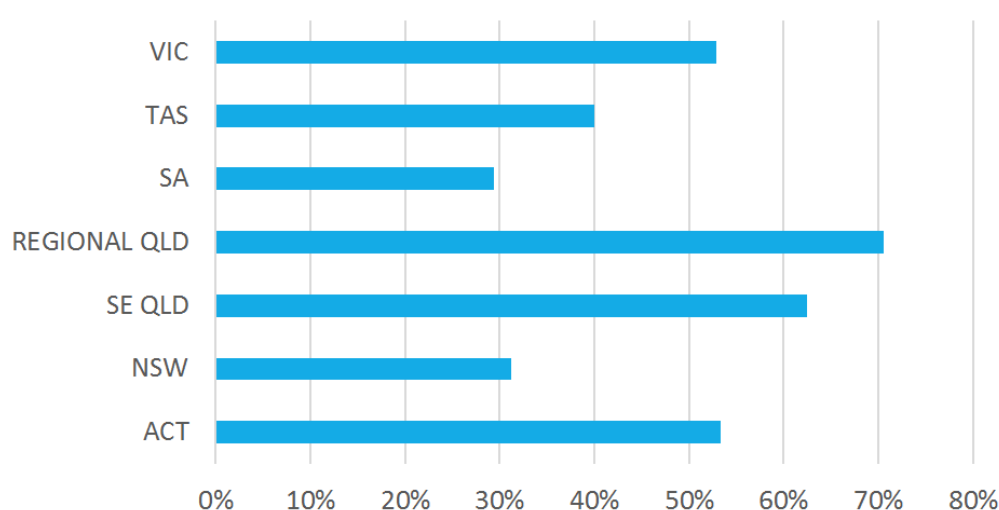
Retail price regulation

As noted above, retail price regulation was identified as the most important barrier to entry in regional Queensland, Australian Capital Territory and Tasmania. It was also the second most frequently cited barrier in South East Queensland. Several retailers also mentioned that the removal of retail price regulation in New South Wales from 1 July 2015 had decreased barriers to entry and expansion in that jurisdiction.

Policy and regulatory risks

More than half of all retailers surveyed said policy and regulatory risks were a barrier to entry in regional Queensland, South East Queensland, the Australian Capital Territory and Victoria (Figure 9.3).

Figure 9.3 Proportion of retailers identifying policy and regulatory risk as a barrier to entry (electricity, by jurisdiction)



Source: Farrier Swier 2016.

In Queensland, the perceived policy and regulatory risk stemmed from uncertainty about retail price regulation. In April 2015, the Queensland Government decided to delay scheduled deregulation from 1 July 2015 to 1 July 2016 pending a review by the QPC. While the Government has now confirmed that deregulation will occur from 1 July 2016, most of our retailer surveys were completed before this announcement.

In Victoria, the perceived policy and regulatory risk stemmed from uncertainties about if and when Victoria would adopt NECF and the outcomes of the Victorian ESC's review of energy retailers' hardship programs:

- Unlike other NEM jurisdictions, Victoria still has state-specific customer protection arrangements and has not announced when it will implement the NECF.⁸⁰ Some retailers considered that this is a barrier to entry and expansion in 2016 because the different regulatory arrangements in Victoria means retailers need separate systems to support their operations in that state and this increases their compliance costs.

⁸⁰ Although it has completed a process to harmonise the Victorian Energy Retail Code and Guidelines with this framework.

- The Victorian ESC conducted a review of hardship programs over 2015 and 2016, the outcomes of which were not known at the time our retailer survey was conducted. Some retailers indicated that uncertainty about these outcomes and the costs they would impose on retailers were a barrier to entry and expansion.⁸¹

We note that despite retailers concerns about costs and uncertainty in Victoria, the entry of five new retailers in 2015 suggests these are not major barriers.

In a number of jurisdictions, retailers also identified issues in relation to customer protection, hardship and concession schemes as barriers to entry and expansion. In a number of jurisdictions, retailers identified inconsistencies across jurisdictions in relation to these schemes as barriers to entry and expansion. In South Australia, a retailer identified onerous protections in relation to these schemes as a barrier to entry, and in regional Queensland, retailers identified over-regulation in relation to these schemes as a barrier to entry. In New South Wales, a retailer described concession schemes as "archaic and unworkable", and therefore a barrier to expansion.

Wholesale market conditions and access to hedging products

Retailers consistently mentioned tightening wholesale market conditions as a barrier to entry. This was particularly the case in South Australia and Queensland but also the case in States such as Tasmania and the Australian Capital Territory.

The causes of tightening wholesale market conditions are complex and vary across NEM jurisdictions. In South Australia, wholesale market conditions have been tightening since 2007 and retailers suggested that there are a number of reasons for this, including:

- the relatively concentrated generator ownership in the state, whereby AGL owns 37 per cent of generator capacity;
- generator rebidding behaviour, whereby generators rebid capacity from low to high prices close to a given dispatch interval, thereby limiting the time available for other supply or demand participants to respond, and resulting in price volatility;⁸²
- thermal plant withdrawals as a result of the increasing reliance on wind generation in the state;
- the high level of vertical integration in non-renewable generation in the state resulting in the trading terms (including prices) offered by these generators under hedging contracts being relatively poor;
- wholesale price swings due to the intermittent nature of wind generation; and

⁸¹ The Victorian ESC published its Final Report into the inquiry in March 2016. See Victorian ESC *Supporting Customers, Avoiding Labels: Energy Hardship Inquiry*, final report, Victorian Government, February 2016, Melbourne.

⁸² In 2015, the AEMC conducted a rule change into generator rebidding behaviour with changes coming into effect from 1 July 2016. Please see AEMC, *Bidding in Good Faith*, final determination, AEMC, 10 December 2015, Sydney, <http://www.aemc.gov.au/Rule-Changes/Bidding-in-Good-Faith#>.

- outages in the Heywood interconnector with Victoria and the inability to rely on interregional hedges when this occurs.⁸³

In South East and regional Queensland, retailers indicated that tightening wholesale market conditions, manifested by “extraordinarily high local price volatility”, have been due to:

- the concentration of generator ownership in Queensland, where Stanwell and CS Energy control around 64 per cent of capacity;
- generators’ strategic bidding behaviour, which can result in higher wholesale market prices, greater market volatility and higher wholesale forward contract prices; and
- interconnector constraints between New South Wales and Queensland, whereby transfers can be constrained by voltage limitations.⁸⁴

In Tasmania, retailer responses suggested that wholesale market conditions are difficult due to the:

- small demand base in the jurisdiction;
- structure of the wholesale market, with Hydro Tasmania being the only generator in the market;
- reliance on a single physical link to Victoria (the Basslink), which failed in late 2015; and
- inability of retailers to rely on interregional hedges to cover their wholesale positions.

Tightening wholesale market conditions are generally accompanied by difficulties in accessing hedging products. Accordingly, in Figure 9.4, it can be seen that tightening wholesale market conditions have had a significant impact in South Australia, with retailers perceiving access to hedging products to be a more important barrier to entry to the retail market in South Australia than in any other jurisdiction in 2016.

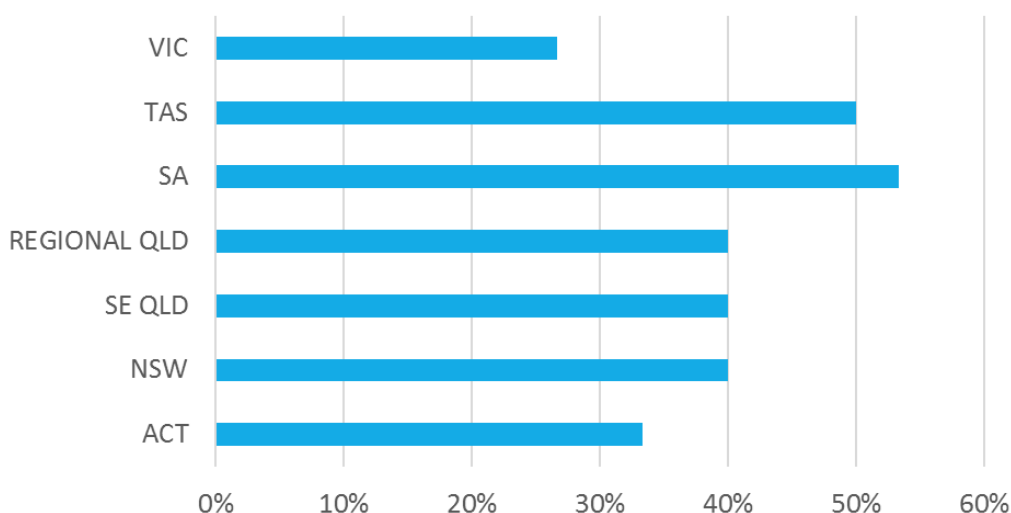
Access to hedging products has also been a particularly important barrier in Queensland and Tasmania.

Additionally, some retailers also identified difficulties in accessing hedging products due to the vertical integration of the big three retailers. This was particularly the case in New South Wales.

⁸³ See generally AER, *State of the Energy Market 2016*, p. 10, for a description of the current wholesale market conditions in South Australia.

⁸⁴ See generally, AER, *State of the Energy Market 2016*, p. 9, for a description of the current wholesale market conditions in Queensland.

Figure 9.4 Proportion of retailers identifying access to hedging products as a barrier to entry (electricity, by jurisdiction)



Source: Farrier Swier 2016.

Environmental policies

Retailers indicated that costs associated with environmental and energy efficiency schemes were a barrier to entry in several jurisdictions, including in South East Queensland, regional Queensland, New South Wales, and the Australian Capital Territory. These policies may include reference to state-based environmental schemes or NEM-wide schemes such as the Renewable Energy Target.

In South Australia, retailers identified the costs associated with environmental schemes as a particularly important barrier to entry. Several retailers also specifically identified the Retailer Energy Efficiency Scheme (REES), which imposes an obligation on retailers supplying 5,000 or more customers to participate in the scheme, as an important barrier to entry. Several put the view that this threshold is too low, and can impose significant costs on small retailers.

Prudential and credit support arrangements

Retailers are required to provide credit support to AEMO, and, in some instances, also to distributors. The credit support provided by retailers to AEMO is to protect against the risk, faced by generators, of default by retailers in relation to their purchases of electricity in the NEM spot market.

In addition, retailers may be required to provide credit support to distributors. This reflects the fact that retailers collect distribution network charges from customers on behalf of distributors; in this context, the role of credit support is to protect distributors against the risk of retailer default in relation to the payment of network charges.

Retailers indicated that prudential and credit support arrangements can be a barrier to entry and/or expansion in New South Wales, the Australian Capital Territory, Victoria and South Australia. In South East Queensland, retailers particularly mentioned perceived over-regulation in relation to these arrangements as barriers to entry and/or expansion.

These are ordinary and efficient costs of business in the NEM. Market participants require these guarantees in order to safeguard their interests; all retailers are required to pay these obligations; the extent of retailers' obligations vary according to their risk of default.⁸⁵ Accordingly, for the purposes of this report, we do not consider these barriers to entry which adversely affect competition.

Other barriers to entry and expansion

Some retailers also identified delays in certain states' implementation of the NECF as a barrier to entry and expansion. Similarly, several welcomed the adoption of NECF in Queensland from 1 July 2015 as a positive step in reducing barriers to entry and expansion. In New South Wales, retailers identified the adoption of NECF in 2013 as contributing to improvements in barriers to entry and expansion in the region.

Some retailers also identified other barriers to entry in specific jurisdictions. These included the following:

- Australian Capital Territory - Small size of the demand base. We note that this is a structural barrier to entry.
- New South Wales - Big three retailers' retention strategies including aggressive customer win-back offers, which made it difficult for smaller second-tier retailers entering the market to obtain market share.
- South East Queensland - Increasing gas input costs for gas-fired generators attributable to rising LNG demand; the capping of standard prices for one year after price deregulation.
- South Australia - Cost of licencing administered by the Essential Services Commission of South Australia (ESCOSA), which retailers described as prohibitive, and the fact that licensing fees are unable to be scaled to the size of a retailer's operations.
- Victoria - Big three retailers implementing strong retention or win-back campaigns.

9.3.3 Additional barriers to entry and expansion in regional electricity markets

Generally, most retailers did not identify additional barriers to entry and expansion in rural and regional electricity retail markets (relative to those in urban markets). Those that did identified geographical distances, the inability to build on economies of scale in offering services, and the relatively higher costs to serve customers in regional markets.

The main exception was in regional Queensland. In regional Queensland, retailers identified retail price regulation as an additional barrier to entry.

Furthermore, retailers identified the structure of the subsidies paid by the Queensland Government to Ergon Energy Retail to fund the UTP as an additional barrier to entry in regional Queensland. Refer to section 2.1.1 for a discussion relating to the UTP in regional Queensland.

⁸⁵ Note that the AEMC is currently considering rule change requests addressing the application of offsets in the prudential margin calculation (ERC0188) and the retailer-distributor credit support requirements (ERC0183).

In regional New South Wales, some retailers identified practical difficulties in charging customers for high loss factors which vary from region to region as an additional barrier to entry. Loss factors refers to energy which is lost as electricity flows through transmission and distribution lines as a result of electrical resistance and the heating of conductors.

In South Australia, some retailers identified the priority group arrangements under REES as a barrier to entry in regional areas. Under these arrangements, the relevant South Australian Minister sets an amount of the energy efficiency target which must be undertaken in low-income households.⁸⁶ Nonetheless, it is questionable whether this is an inefficient barrier to entry, as there are specific policy reasons as to why the South Australian Government would choose to assist low-income earners in reducing their electricity bills.

9.3.4 Importance of economies of scope, scale and generation interests in electricity markets

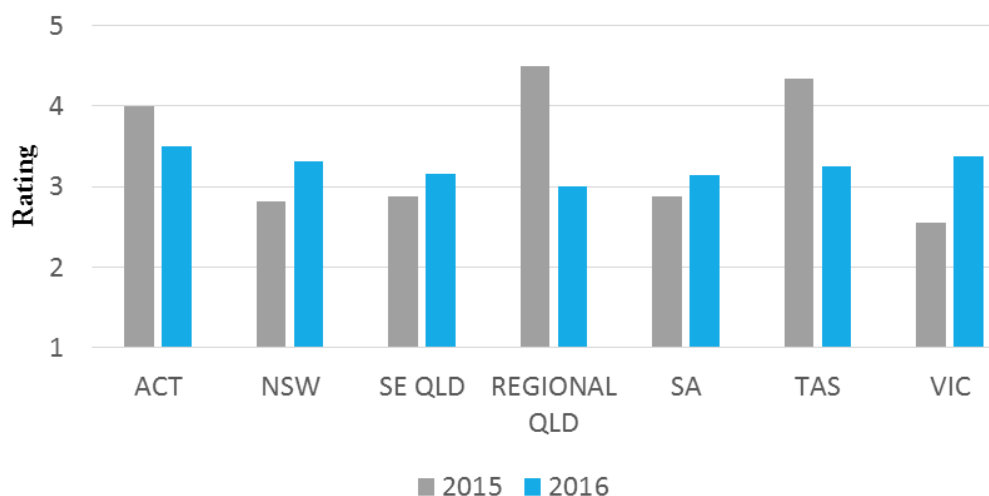
Our retailer survey asked respondents to rate the importance of having economies of scope, economies of scale and generation interests for their ability to compete effectively within each of the jurisdictions where they operate. In this context:

- 'Economies of scale' refers to a situation where a retailer's long run average cost declines as the size of its customer base increases. This may occur if a retailer has significant fixed or sunk costs and may mean retailers have to attract a minimum number of customers to compete effectively.
- 'Economies of scope' refers to a situation where the unit cost of a retailer supplying two or more products or services (such as gas and electricity) is lower for a given level of output than if those products or services were supplied by two separate retailers.
- 'Generation interests' refers to retailers' interests in owning generation assets.

In all jurisdictions, retailers' average rating of the importance of economies of scale fell between 'important' to 'very important' in 2016 (Figure 9.5). In New South Wales, South East Queensland, Victoria and South Australia, the average rating was higher than in 2015. In regional Queensland, the Australian Capital Territory and Tasmania, the average rating was lower, though this is likely due to the smaller sample sizes in 2015, which contained some outlier results. The average ratings in 2016 align with retailer comments on the importance in economies of scale in these jurisdictions.

⁸⁶ These annual priority group energy efficiency targets are described on the ESCOSA website at ESCOSA 2016, South Australian Government, South Australia, viewed 4 May 2016, <http://www.escosa.sa.gov.au/residential-energy-efficiency-scheme-rees/rees-targets.aspx>.

Figure 9.5 Importance of having economies of scale, average rating (electricity, by jurisdiction)

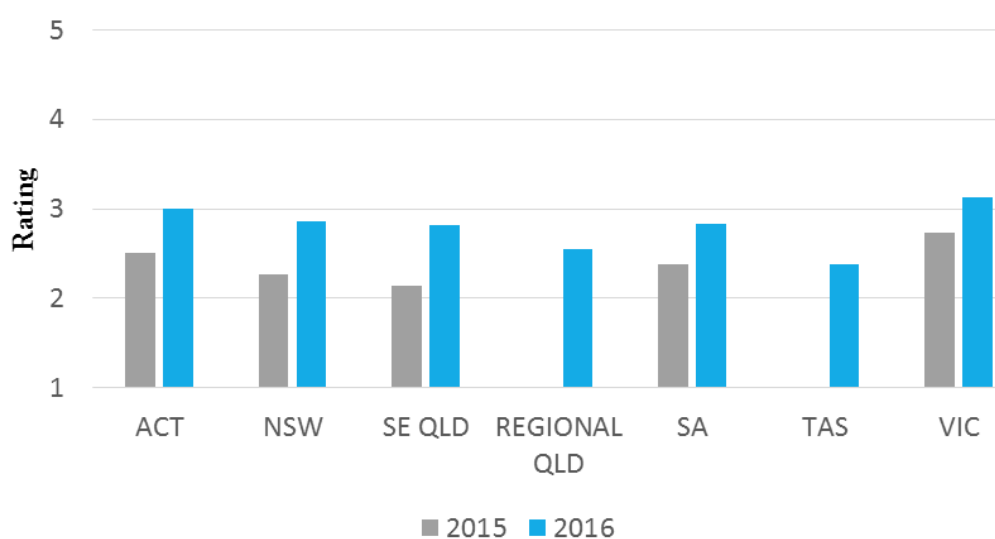


Note: Rating scale: 1 irrelevant; 2 slightly important; 3 important; 4 very important; 5 critical; 2015 results for regional Queensland and Tasmania have been omitted due to the small sample biased by incorrect survey completion.

Source: Farrier Swier 2016.

Retailer ratings of the importance of economies of scope in electricity retail markets increased markedly in 2016. The average rating in most jurisdictions was between 'slightly important' and 'important'. In Victoria, it was between 'important' and 'very important'. This increase appears consistent with retailers' comments on increasing their focus on bundled products (see Chapter 10).

Figure 9.6 Importance of having economies of scope, average rating (electricity, by jurisdiction)

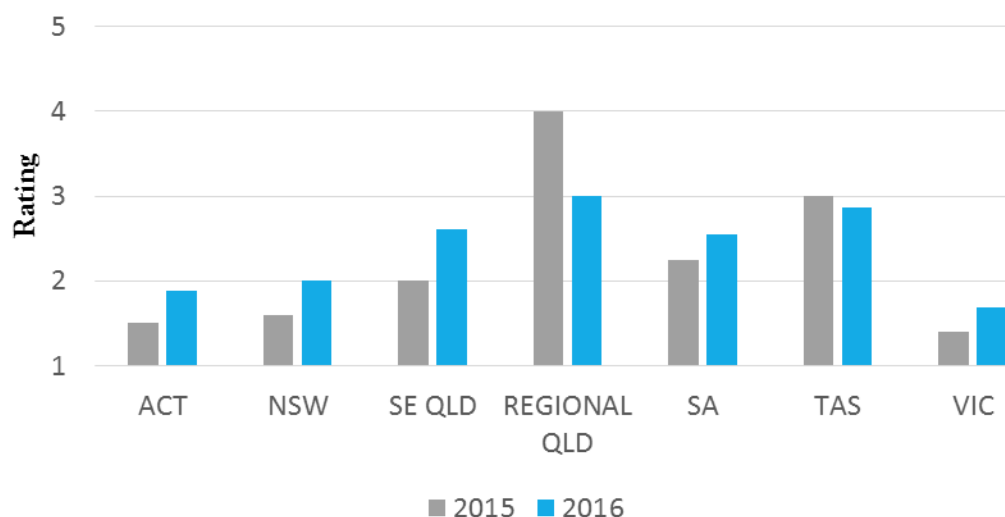


Note: Rating scale: 1 irrelevant; 2 slightly important; 3 important; 4 very important; 5 critical; Ratings of '1' were given for regional Queensland and Tasmania in 2015.

Source: Farrier Swier 2016.

On average, retailers rated it more important to have generation interests in 2016 than 2015 in all jurisdictions except regional Queensland and Tasmania (Figure 9.7). The average rating in the Australian Capital Territory, New South Wales and Victoria was between ‘irrelevant’ and ‘slightly important’. The average rating in South East Queensland, South Australia and Tasmania were between ‘slightly important’ and ‘important’. The apparent reduction in rating for regional Queensland is likely to be due to the smaller sample in 2015, which contained some outlier results.

Figure 9.7 Importance of having generation interests, average rating (electricity, by jurisdiction)



Note: Rating scale: 1 irrelevant; 2 slightly important; 3 important; 4 very important; 5 critical.
Source: Farrier Swier 2016.

Retailer ratings of the importance of generation interests are consistent with retailer comments. Retailers made the following observations about generation interests in 2016:

- One retailer considered the importance of having generation interests in South Australia increased in the last year, as wholesale liquidity had decreased and this had increased the price of wholesale procurement (see section 9.3.2 for a detailed discussion of wholesale market conditions in South Australia).
- In Queensland, one retailer considered it was “almost impossible to compete in safety” without generation assets, relative to Victoria and New South Wales. Other respondents echoed the QPC’s recently expressed concerns about the concentration of the generation base load and capacity in Queensland.⁸⁷

9.3.5 Outlook for barriers in electricity markets

In most NEM jurisdictions, retailers expressed mixed views about the outlook for barriers to entry and expansion in the next one to two years. While some retailers

⁸⁷ QPC, *Electricity Pricing Inquiry*, draft report, 3 February 2016, p. 40. Table 4 compares market concentration across the Queensland, New South Wales and Victorian generation sectors.

consider there would be no change, others expected to see significant changes including:

- existing retailers consolidating;
- new entrants emerging;
- more alternate energy suppliers and new retail models entering; and
- new business models emerging, leveraging off new technology.

On the other hand, other retailers expected no significant changes.

There were some differences across jurisdictions. Notably, in New South Wales, most retailers indicated that they expected significant new entry in electricity markets over the next one to two years, possibly in the form of alternate energy suppliers rather than that of “traditional” retailers. They also expected further consolidation of second tier retailers.

As Table 9.2 shows, the number of retailers considering entry, expansion or exit also varied across jurisdictions. Likely as a result of potential deregulation, four retailers indicated that they were considering entry into each of the South East Queensland and regional Queensland retail electricity markets, and five retailers stated that they were considering expansion into South East Queensland retail electricity markets. This indicates that price deregulation may lead to greater entry and expansion in these regions in the future. In both New South Wales and Victoria, one retailer said it was considering entry, while a number said they were considering expansion into these markets. In South Australia, no retailer said it was considering entry, but four said they were considering expansion, and one was considering exit.⁸⁸

Table 9.2 Retailers considering entry, expansion or exit (electricity, by jurisdiction)

	ACT	NSW	SEQ	Reg Qld	SA	Vic	Tas
Entry	2	1	4	4*		1	1
Expansion	2	5	5**		4	5	
Exit			1	1	1		

Note: *One subject to price deregulation and amendments to the CSO. **One subject to price deregulation.

Source: Farrier Swier 2016, AEMC analysis.

Retailers views on the expected change in incumbent retailers’ market share were also mixed in most jurisdictions. Some retailers expected no change, some expected second tier retailers’ market share to increase, and some expected potential consolidation of smaller players or acquisition by the big three or incumbent. In Tasmania and Victoria, most retailers did not expect any noticeable change in the incumbent’s or big three’s market share.

⁸⁸ Note that this is based on the retailer survey, completed in January and February 2016, and since this date, retailers plans for entry and expansion may have changed.

9.3.6 Barriers to exit

Retailers did not raise barriers to either type of exit in the survey or interviews.

9.4 Derivative turnovers and liquidity ratios in electricity markets

Derivative turnovers and liquidity ratios provide objective indicators of retailers' access to hedging products to manage their risk exposure as they enter or expand in different markets (see Box 9.2 for further information). We calculated derivative turnover and liquidity ratios across all NEM jurisdictions in 2014-15 (except for the Australian Capital Territory and Tasmania, where data is not available), and compared them to previous years.

Note that reliable data on over the counter contracts is not available. The AFMA data on OTC derivatives is based on a voluntary survey. Accordingly, the level of OTC derivatives is likely understated because a number of market participants have not responded to the survey. Additionally, different participants respond each year. If the OTC survey data were excluded, the liquidity ratio would further underestimate the total contract turnover. We have therefore included the OTC data in our estimates of contract liquidity.

As Appendix C shows, liquidity ratios fell significantly in all jurisdictions from 2013 - 2014 to 2014 - 2015. Liquidity ratios were highest in Queensland at 3.54, followed by Victoria at 3.12, New South Wales at 2.5, and South Australia at 1.06. This was primarily due to a significant decrease in the trade of OTC derivatives in 2014 - 2015. According to AFMA, this is largely attributable to the repeal of the *Clean Energy Act 2011* (Cth), which has had a significant impact on trade in contracts that provided for a carbon addendum.⁸⁹

There was also a decrease in exchange-traded derivatives in all NEM jurisdictions except Queensland, but this was less significant than the decrease in OTC derivatives.

Figure 9.8 shows the derivative turnover and liquidity ratios across the NEM.

Box 9.2 What are derivative turnovers and liquidity ratios?

In electricity markets, parties enter into hedging contracts in relation to the purchase and sale of electricity to manage the risk of volatility in the spot market price of electricity. Typically, these contracts are either over-the-counter (OTC) derivatives or exchange-trade derivatives. OTC derivatives are hedging contracts that are privately negotiated and traded between two parties. Exchange-traded derivatives are hedging contracts that are facilitated by specialised exchange forums.

The derivative turnover is the sum of the OTC and exchange-traded derivatives in a given year, and demonstrates how much trade in hedging contracts takes place

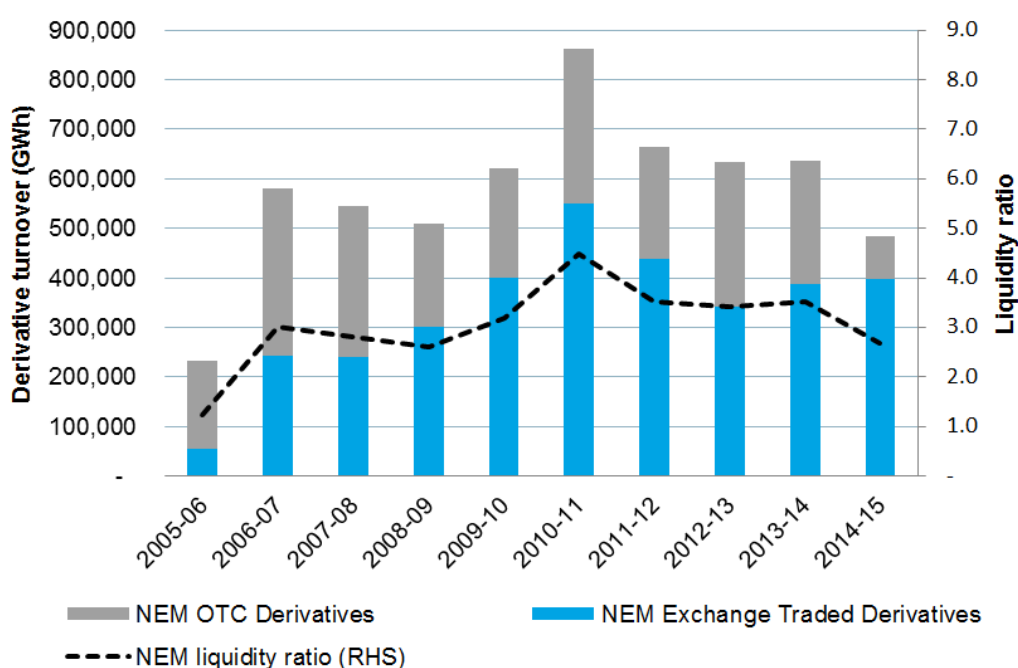
⁸⁹ AFMA, 2015 *Australian Financial Markets Report*, p.48.

in a given year.

Because of the structure of these markets, there is a correlation between derivative turnover and liquidity.⁹⁰

The liquidity ratio is a measure of the availability of hedging products. This ratio is calculated by dividing the derivative turnover by the total consumption of energy in a year. The result identifies how many contracts are entered into per output of energy in the market in any given year. The more contracts that are entered into per output of energy, the more trade that is occurring in the industry, and the more access that retailers are likely to have to hedging products.

Figure 9.8 Derivative turnover and liquidity ratios (electricity, all NEM jurisdictions)



Source: ASX, AEMO data, AEMC analysis

9.5 Evidence of entry, expansion and exit in gas markets

Across all jurisdictions, only two retailers entered the gas market in 2016. These were Red Energy and Dodo, and both entered the New South Wales market. However, Lumo Energy, which is owned by the same parent company as Red Energy, already provided gas to New South Wales customers.

There was little change in market shares across the jurisdictions. In New South Wales, Victoria, South Australia and the Australian Capital Territory, second tier retailers slightly increased their market share. In Queensland and Tasmania, the largest retailers slightly increased their market-share (see section 10.6.2 and Figure 10.8).

⁹⁰ The relationship between contract turnover and liquidity is more challenging to understand in gas markets due to the market structure.

Only one retailer exited retail gas markets in 2015-16. In April 2016, the AER revoked GoEnergy's gas retailer authorisation following the appointment of external administrators and subsequent suspension from the STTM by AEMO.

The failure of GoEnergy's gas retail operations and exit from the market only affected a small number of large commercial customers in New South Wales and Queensland, with no residential or small business customers affected.

This followed GoEnergy's exit from the electricity retail market (see section 9.2).

9.6 Retailer views on barriers in gas markets

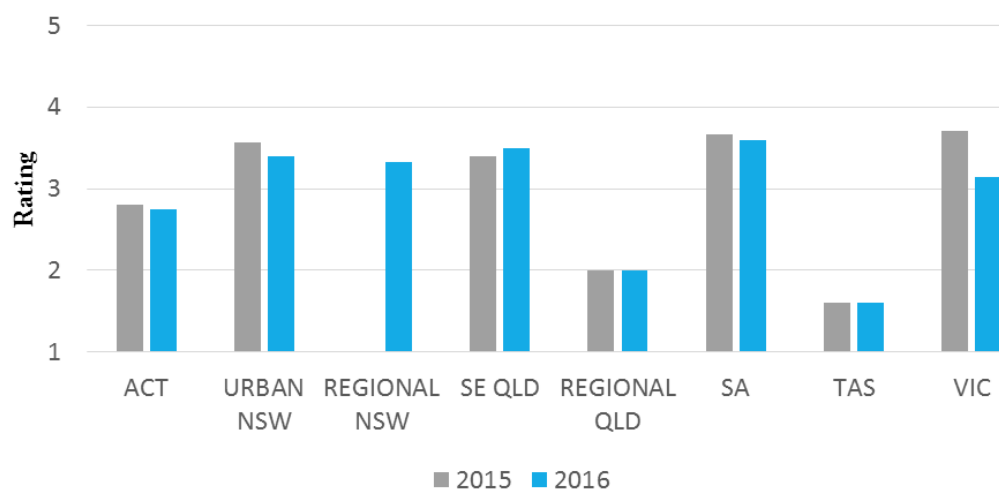
To explore retailers' views on the barriers to entry, expansion and exit in gas markets, we asked our survey respondents the same questions as for the electricity market. However, instead of asking retailers about their interests in generation assets, we asked retailers about their interest in upstream gas interests.

Additionally, for the first time, we asked retailers separately about the urban and regional markets in New South Wales. This was done in order to assess the barriers to entry in regional New South Wales, and to determine the likely impact of the New South Wales Government's proposal to potentially deregulate its retail gas market on 1 July 2017 (see Box 9.3).

9.6.1 Ease of entry, expansion and exit

Retailers' ratings suggest the ease of entering gas markets in 2016 was similar to that in 2015 (Figure 9.9). Based on their average ratings, retailers considered it was 'neither easy or difficult' to 'easy' to enter markets in South East Queensland, New South Wales (including regional markets), Victoria and South Australia. Retailers saw regional Queensland and the Australian Capital Territory as more difficult to enter, and Tasmania as the most difficult gas market to enter, rating the ease of entry between 'very difficult' and 'difficult'.

Figure 9.9 Ease of entry, average rating (gas, by jurisdiction)

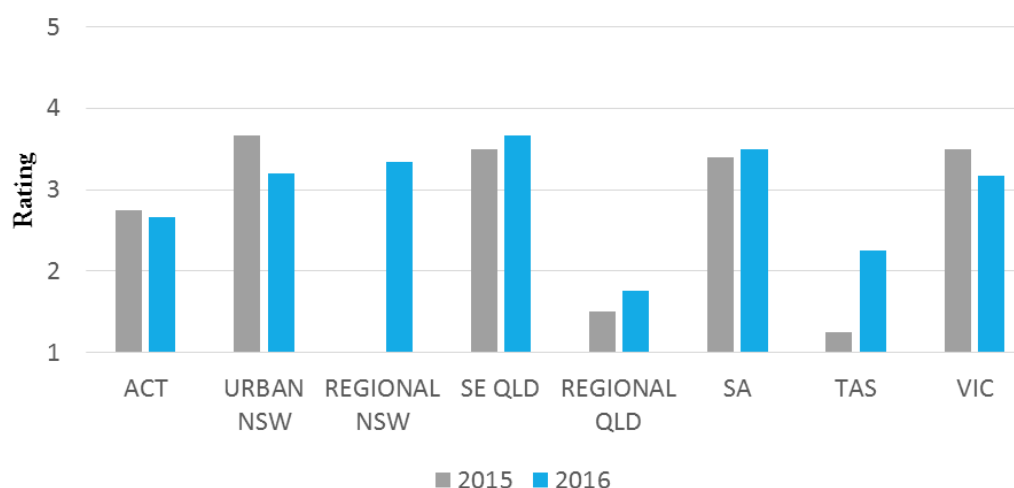


Note: 1 very difficult; 2 difficult; 3 neither; 4 easy; 5 very easy.
Source: Farrier Swier 2016.

On average, retailers also rated the ease of expansion in gas markets as between 'neither easy or difficult' and 'easy' to expand in South East Queensland, New South Wales (including rural markets), Victoria and South Australia. They found it more difficult to expand in the other jurisdictions, and most difficult in regional Queensland, where they rated it as between 'very difficult' to 'difficult' (Figure 9.10).

These ratings are generally in line with those for 2015.

Figure 9.10 Ease of expansion, average rating (gas, by jurisdiction)



Note: 1 very difficult; 2 difficult; 3 neither; 4 easy; 5 very easy.

Source: Farrier Swier 2016.

9.6.2 Barriers to entry and expansion in gas markets

The factors most frequently identified as barriers to entry and expansion in retail gas markets were access to gas, the price of gas, and the small demand base (Table 9.3).

Table 9.3 Factors identified by retailers as barriers to entry and expansion (gas, by jurisdiction)

State	Most frequent	Second most frequent	Third most frequent
Australian Capital Territory	Small size of the demand base (57%)	Access to gas (29%) Price of gas (29%)	
New South Wales urban	Access to gas (50%) Price of gas (50%)		Access to transmission capacity (44%)
New South Wales rural	Access to gas (55%)	Price of gas (45%)	Access to transmission capacity (40%)
South East Queensland	Small size of the demand base (50%)	Access to gas (38%) Price of gas (38%)	

State	Most frequent	Second most frequent	Third most frequent
Regional Queensland	Small size of the demand base (63%)	Policy/regulatory risks (50%)	Access to gas (25%) Price of gas (25%) State-based licencing requirements (25%)
South Australia	Access to gas (38%) Price of gas (38%)		Access to transmission capacity (33%)
Tasmania	Small size of the demand base (63%)	Price of transmission capacity (43%)	Price of gas (33%)
Victoria	State-based licencing requirements (54%)	Price of gas (50%)	Access to gas (42%) Policy/regulatory risks (42%)

Access to and price of gas

In almost all jurisdictions, access to gas on reasonable terms was one of the three most frequently identified barriers to entry. In South East Queensland, New South Wales and South Australia, it was the most frequently identified barrier.

The advent of the LNG export industry in Queensland has led to a dramatic increase in the demand for gas for exportation purposes, and this has led to tightening supply conditions for gas in the domestic market. As a result, some retailers have had difficulty securing wholesale Gas Supply Agreements from producers, or have only been able to secure them at high prices.

Even as the supply-demand balance loosens somewhat, the price of gas is now linked to international prices, presenting a new and unfamiliar risk for gas retailers to manage. This may be a barrier over time to entry and expansion, as retailers may have difficulties passing on any price rises in a timely way.

While market participants, including retailers, are able to access gas through the gas short-term trading markets, there is currently no way for them to hedge the price risk involved in doing so, other than through taking a physical position outside of these markets. The key focus of the AEMC's East Coast Wholesale Gas Markets and Pipelines Frameworks Review has therefore been to improve market and pipeline frameworks to allow more liquid trading to develop and to put in place the preconditions for financial hedging products to develop.

Small size of demand base

For retailers in regional Queensland, the Australian Capital Territory and Tasmania, the small size of the demand base in those markets was the most frequently identified barrier to entry. In many cases, retailers may find it is not worth the investment required to supply gas to such a small demand base. We note that this is a structural barrier to entry.

Access to transmission capacity

Retailers require transmission capacity to transport gas to their customers. Emerging retailers may not be able to get ready access to transmission capacity because the market for secondary capacity (that is, the market for capacity already held by another party, such as another retailer) may not be functioning adequately. This may be for a variety of reasons, including:

- a lack of standard terms and conditions for capacity, preventing easy trade; and
- inadequate arrangements to facilitate trade (such as platforms on which trading can occur).

This makes it difficult for retailers to buy unutilised capacity owned by another party in a timely manner or on reasonable terms. Improving the secondary transmission capacity market has been a key focus of the AEMC's East Coast Wholesale Gas Markets and Pipelines Frameworks Review.

Retailers may also consider that the price of primary capacity (that is, capacity sold by the pipeline owner to retailers) may also be too high due to the monopolistic and unregulated nature of the market. This has been a focus of the ACCC's recent East Coast Gas Inquiry 2015.

Requirements of the STTM or DWGM

A number of retailers also identified as barriers to entry the AEMO-operated retail and wholesale markets – the STTM in New South Wales, Queensland and South Australia, and the DWGM in Victoria. Some of the characteristics of these markets that may be seen as impediments to gas retailer entry include:

Difficulties which render these markets barriers include:

- the requirement on a compulsory basis to participate in some of these markets;
- the complexity of each individual market resulting in high administrative costs to participate, and the fact that there are multiple facilitated markets with different requirements;
- the fees to participate in the markets; and
- low demand for gas at the hubs.

Specific jurisdictional barriers

Some retailers identified barriers to entry and expansion in individual jurisdictions.

For example, some retailers stated that it is more challenging to enter and expand in the Tasmanian gas retail market than in other jurisdictions. Retailers identified the causes of this as:

- the small demand base;
- the limited number of wholesale gas providers (likely as a result of the small demand base);
- high network charges in Tasmania (again likely as a result of the small demand base); and

- the application of National Gas Laws and prudential requirements, which were considered excessive and not reflective of the specific circumstances of the market.

With the exception of the application of the National Gas Laws and prudential requirements, we consider these factors are structural barriers to entry.

Some retailers also mentioned the following as additional barriers to entry and/or expansion in New South Wales:

- Retail price regulation, New South Wales being the only remaining state in which retail price regulation remains in gas markets.
- Uncertainty related to the New South Wales-Australian Capital Territory Retail Gas Project, which seeks to standardise New South Wales/ Australian Capital Territory retail gas business to business (B2B) and business to market operator (B2M) interfaces with other jurisdictions;⁹¹ and
- The disproportionate costs of capital requirements and providing human resources.

In Victoria, retailers also mentioned the following barriers to entry:

- State-based licensing regimes. Although retailers were not specific, this is likely to refer to the requirement that retailers comply with the specific licensing requirements of the Victorian ESC in Victoria (as opposed to the uniform licensing requirements of AEMO in other states); and
- Safety case requirements. Again, retailers were not specific but this is likely to relate to the requirement that a gas safety case must be made to Energy Safe Victoria before a gas retail licence can be approved in Victoria. Retailers have previously expressed that complying with this requirement is unduly difficult, costly and time-consuming.

9.6.3 Additional barriers to entry and expansion in regional gas markets

Retailers in several jurisdictions identified additional barriers to entry and expansion in regional gas markets (relative to urban markets). These included the lack of mains gas in many areas (ie., the lack of built pipelines servicing particular areas); the inability to build on economies of scale, which is a structural barrier to entry; and legacy haulage agreements (in New South Wales and Victoria in particular).

Some retailers also mentioned jurisdiction-specific barriers in regional areas:

- In regional Queensland, these included the inability to offer dual fuel as it is uneconomic to compete in electricity markets without access to CSO payments.
- In regional Tasmania, they included customers' lower knowledge and understanding of natural gas, the higher connection costs than in urban areas, and the prohibitive cost of connection and new appliances for low socio-economic households.

⁹¹ Details of this project are set out at: AEMO 2016, Sydney, viewed 4 May 2016, http://www.aemo.com.au/Consultations/Gas-Consultations/NSW_ACT-Retail/IN01815--NSWA-CT-Retail-Gas-Market-Procedures-and-Gas-Interface-Protocol.

- In Victoria, retailers referred to the lack of transmission and distribution systems in a number of areas as a result of a small demand base. This is a structural barrier to entry.

Box 9.3 Barriers in regional New South Wales Gas Markets

The New South Wales Government has announced it is looking to deregulate retail gas prices across the state from 1 July 2017 if certain conditions are met. These conditions include an increase in the level of competitive offers available to customers in regional New South Wales.⁹²

Based on our findings for all competitive indicators together, the Commission considers there is sufficient competition in the New South Wales retail gas market for customers to benefit from the removal of retail price regulation from this date.

Price deregulation would remove a barrier to entry and expansion in the New South Wales retail gas market in both urban and regional areas. It is likely to promote further competition in the market to deliver innovation, a greater range of offers and competitive prices. One retailer already indicated in our February 2016 survey that it intends to enter major regional centres in the next one to two years.

The New South Wales Government, AEMO and ACCC (as well as the AEMC) have also been undertaking work which can address additional barriers to entry and expansion in regional New South Wales.

There is less competition in certain areas of regional New South Wales. For example, while in Sydney there are seven gas retailers, there are only one or two gas retailers in some regional towns.⁹³

Retailers face specific additional barriers to entry and expansion in regional areas of the state. These barriers include the small customer base, the substantial fixed costs involved in transferring and retailing gas to consumers,⁹⁴ uncertainty surrounding the New South Wales-Australian Capital Territory Retail Gas Project, the prevalence of legacy haulage agreements, incumbent retailer dominance, and the lack of mains gas. It also includes Shoalhaven's explicit exclusion from AEMO's Retail Gas Market Procedures, which set out the obligations of industry participants in relation to the operation of retail gas markets. This exclusion means there is currently no established mechanism to transfer potential consumers in this region to another retailer, and therefore, that there is only one retailer making one offer in this region.

⁹² Department of Industry, Resources and Energy 2016, New South Wales Government, Sydney, viewed 20 June 2016, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/consumer-assistance/retail-gas-prices-the-way-forward>.

⁹³ In towns such as Temora, Gundagai, Wagga Wagga and Tamworth, for example, there is only one retailer servicing the area. See IPART, *Review of regulated retail prices and charges for gas from 1 July 2016*, final report, June 2016, p.29.

⁹⁴ IPART, *Review of regulated retail prices and charges for gas from 1 July 2016*, final report, June 2016, p. 20.

We note that the AEMC was consulted through a working group run by the New South Wales Government on some of these issues.

AEMO is working with stakeholders on a project to include the Shoalhaven area in its Retail Market Procedures, which would mean that by early 2017, gas customers in this area may, for the first time, have a choice of retailers.⁹⁵

AEMO is also due to complete its work on the New South Wales-Australian Capital Territory Retail Gas Project by early 2017, which would reduce costs and make it easier for retailers to supply gas to regional customers.⁹⁶

Additionally, the Commission notes that issues relating to the price of primary transmission capacity and potential improvements to the regulatory framework in this regard, are a key focus of the ACCC's recent East Coast Gas Inquiry,⁹⁷ and improvements related to secondary transmission capacity is a key focus of the AEMC's East Coast Wholesale Gas Markets and Pipelines Frameworks Review. Please see section 9.6.2 for further information in relation to these projects.

The Commission notes that the small customer base in regional New South Wales may prevent price deregulation from having as significant an impact in regional New South Wales as it is likely to have in urban New South Wales. However, the Commission still expects that price deregulation will reduce barriers to entry in the region and, in conjunction with the other projects discussed above, will benefit customers.

The Commission additionally supports ongoing monitoring of retailers' offers by IPART after the introduction of price deregulation to assess if suitable offers continue to be available to customers in regional areas.⁹⁸

9.6.4 Importance of economies of scale, economies of scope and upstream generation interests in gas markets

Retailer ratings of the importance of economies of scale and scope for the ability to compete effectively in a jurisdiction were largely the same in 2016 as 2015. As Figures 9.11 and 9.12 demonstrate, while there were some increases and decreases in these importance ratings, retailers generally agreed that economies of scale and scope were important, with retailers in most jurisdictions ascribing an importance to these factors as falling in between 'important' and 'very important'.

Most retailers also put forward the view that economies of scale were not more important in gas than in electricity. However, some put the opposite view, saying that:

- Given that gas is more of a discretionary fuel, economies of scale play a greater part.

⁹⁵ IPART, *Review of regulated retail prices and charges for gas from 1 July 2016*, final report, June 2016, p. 20.

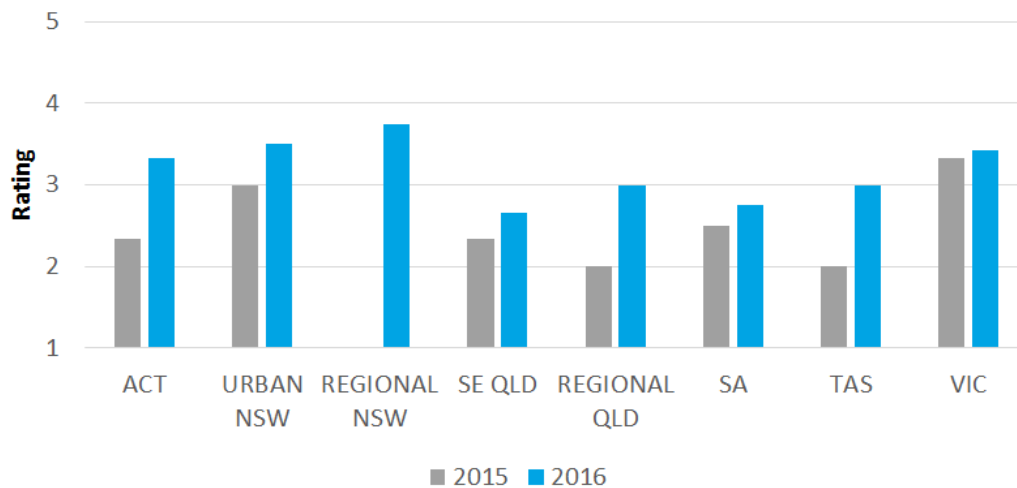
⁹⁶ Ibid.

⁹⁷ ACCC, *Inquiry into the East Coast Gas Market*, final report, April 2016.

⁹⁸ The New South Wales Government has indicated that it will expand IPART's existing market monitoring activities to include gas. See IPART, *Review of regulated retail prices and charges for gas from 1 July 2016*, final report, June 2016.

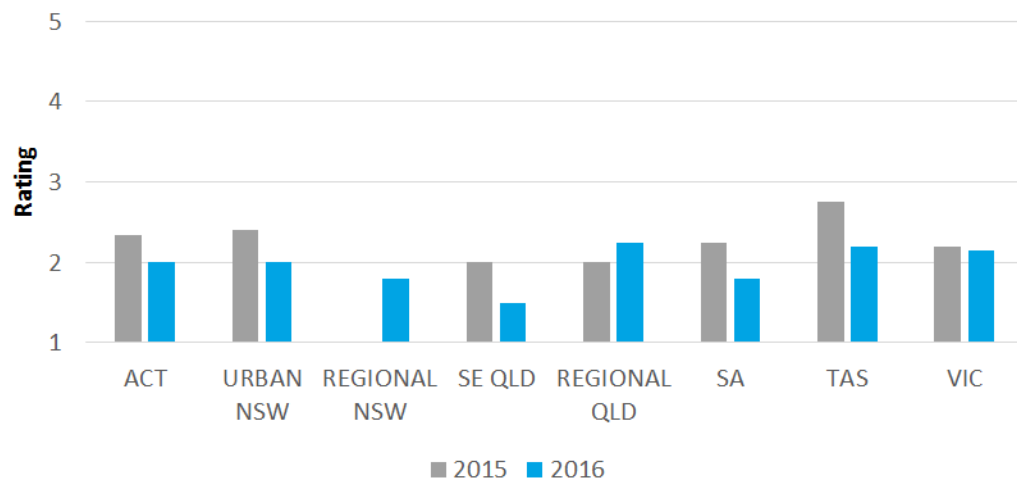
- In Tasmania, gas retailers compete in the market against other fuel sources, particularly electricity, which has 100 per cent market penetration. Natural gas with only 5 per cent market penetration, suffers from a lack of economies of scale, making it more difficult to compete with electricity pricing.

Figure 9.11 Importance of economies of scale, average rating (gas, by jurisdiction)



Note: Rating scale: 1 irrelevant; 2 slightly important; 3 important; 4 very important; 5 critical;
Source: Farrier Swier 2016.

Figure 9.12 Importance of economies of scope, average rating (gas, by jurisdiction)

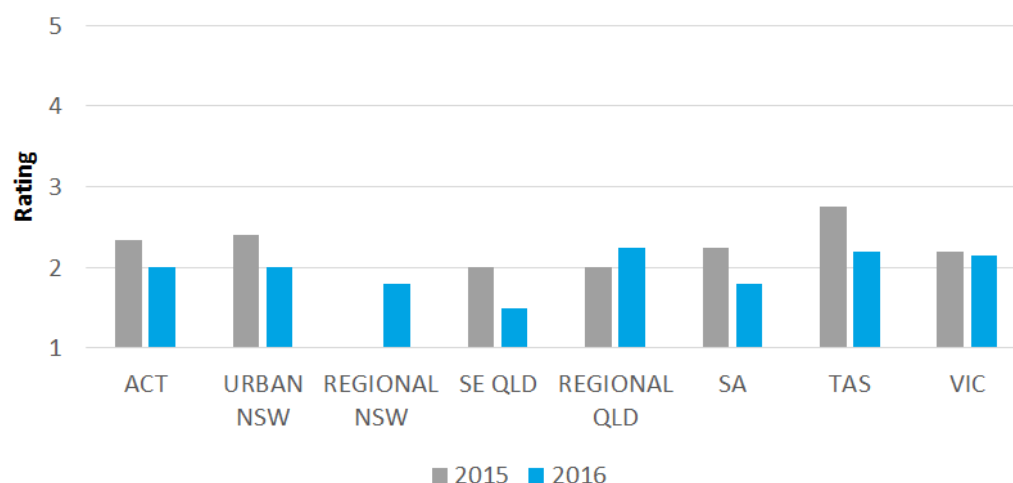


Note: Rating scale: 1 irrelevant; 2 slightly important; 3 important; 4 very important; 5 critical;
Source: Farrier Swier 2016.

On average, retailers rated the importance of having upstream gas interests as slightly less important in 2016 to 2015 (Figure 9.13). However, the average rating for most NEM jurisdictions was at least 'slightly important'. The exceptions were in regional New South Wales, South East Queensland, and South Australia, where the average rating was between 'irrelevant' and 'slightly important'.

We note that some retailers have significant interests in upstream gas production or gas storage to complement their interests in gas-fired electricity generation and energy retailing. Origin Energy is a gas producer in Queensland, South Australia and Victoria. AGL Energy produces coal seam gas in Queensland and New South Wales, and in 2015 opened an LNG storage facility in Newcastle.⁹⁹ However, AGL Energy has recently announced the divestment of its gas projects in Queensland and New South Wales.¹⁰⁰

Figure 9.13 Importance of having upstream gas interests, average rating (gas, by jurisdiction)



Note: Rating scale: 1 irrelevant; 2 slightly important; 3 important; 4 very important; 5 critical;
Source: Farrier Swier 2016.

9.6.5 Outlook for barriers in gas markets

In most jurisdictions, most retailers did not expect to see changes in the ease of entry or expansion in the next one to two years. However, some retailers noted that the recommendations in the East Coast Wholesale Gas Market and Pipeline Frameworks Review are likely to promote transparency in pricing and access to pipelines in larger markets. Some also noted that current LNG projects are likely to impact commodity availability. In addition, some retailers said that they expected that potential retail price deregulation and outcomes of the New South Wales-Australian Capital Territory Retail Gas Project would ease barriers to entry and expansion in urban New South Wales in the next one to two years.

In most jurisdictions, one or two retailers indicated that they were considering entering the gas market, including in regional New South Wales. In Tasmania, no retailers said they were considering entry (see Table 9.4).¹⁰¹

Both across and within jurisdictions, retailers expressed mixed views about the likelihood of new entry, exit and consolidation of existing retailers. In Victoria and

⁹⁹ AER, *State of the Energy Market 2016*, pp. 126, 127.

¹⁰⁰ AGL, *Review of gas assets and exit of gas exploration and production*, media release, AGL, Sydney, 4 February 2016, available at <https://www.agl.com.au/about-agl/media-centre/article-list/2016/february/review-of-gas-assets-and-exit-of-gas-exploration-and-production>.

¹⁰¹ Note that this is based on the retailer survey, completed in January and February 2016, and since this date, retailers plans for entry and expansion may have changed.

urban New South Wales, most retailers indicated that they expected some reduction in the big three retailers' market share. In South Australia, approximately half of the retailers stated they expected some expansion of second tier activity to reduce the incumbents' market share.

Overall, we consider that retailer ratings and comments in relation to barriers to entry and expansion in gas markets indicate that barriers in Victoria, New South Wales, South East Queensland and South Australia are not so significant. Conversely, retailer ratings and comments suggest that the barriers in regional Queensland, the Australian Capital Territory and Tasmania are more difficult to overcome.

Table 9.4 Retailers considering entry, expansion or exit (gas, by jurisdiction)

	ACT	NSW urban	NSW reg	SEQ	Reg Qld	SA	Vic	Tas
Entry	1	1	1*	3	1	1	1	
Expansion		1				1	2	
Exit								

*in major regional centres.

Source: Farrier Swier 2016, AEMC analysis.

9.6.6 Barriers to exit

Retailers did not mention any notable barriers to exit in the 2016 retailer survey.

10 Independent rivalry among retailers

The level of independent rivalry among retailers refers to the extent to which retailers compete to attract customers away from rival firms and retain existing customers in a market. Such rivalry helps to drive price discounting and product innovation. Where competition is effective, there will generally be a high level of independent rivalry.

To assess independent rivalry in NEM jurisdictions, we analysed the following indicators:

- *Market concentration* – the number of energy retailers active in a jurisdiction, their respective market shares and how these have changed since our 2015 review and over the longer term.
- *Customer switching* – the levels of customer switching between energy retailers, including switching between the big three and second tier retailers.
- *Retailer views on independent rivalry* – retailers' perceptions of the overall degree of competition in a jurisdiction, and the levels of price and non-price rivalry.
- *Product differentiation* – the number of energy products and services on offer in 2016 and the range features they include

We looked at the electricity and gas markets separately, and used a range of data for our analysis – including information from AEMO and the AER, the results of our retailer surveys and interviews, and the NECF jurisdictions' and Victorian retail energy product comparison websites (Energy Made Easy and Victorian Energy Compare).

We note there are other indicators of independent rivalry – such as what, if any, barriers are preventing retailers from entering or expanding in the market, and the relative prices of energy offers. These indicators are discussed in Chapter 9 and Chapter 11 respectively.

10.1 Main findings on independent rivalry

Retailers are actively competing for electricity and gas customers in South East Queensland, New South Wales, Victoria and South Australia. There is also rivalry for electricity customers in the Australian Capital Territory, though to a lesser extent. There is no rivalry for residential electricity customers in regional Queensland and Tasmania, however there is limited rivalry for small business electricity customers in Tasmania. There is also some limited rivalry for gas customers in regional Queensland and Tasmania.

Significant falls in retail electricity market concentration over time demonstrate ongoing rivalry between retailers, with newer entrants able to attract customers away from more established firms. Since 2010, the levels of concentration as measured by the Herfindahl-Hirschman Index (HHI) have improved by around 20 per cent in New South Wales, Victoria, South Australia and South East Queensland, despite each market starting with a different level of concentration.

Electricity customer switching rates have remained relatively constant across the NEM since the last reporting period. The overall trend in electricity market switches is that

small customers continue to move away from the big three retailers. Gas switching activity generally declined over the year in most jurisdictions.

Electricity customers in jurisdictions with deregulated prices have the greatest choice of retailers and of electricity offers to choose from. In 2015, there were six new retail electricity market entrants in New South Wales, five in Victoria, and two in South Australia and South East Queensland. The number of flat rate electricity market offers also increased between 2015 and 2016 in New South Wales, Victoria and South Australia, but decreased in South East Queensland and the Australian Capital Territory.

10.2 Market concentration in electricity markets

Competitive markets generally exhibit low levels of concentration. There is a diversity of retailers in the market and no retailers are able to exert a high degree of market power. To assess the levels of concentration across NEM jurisdictions, we analysed:

- changes in the number of active retailers in each jurisdiction;
- trends in market share in the short and longer term, as measured by the relative share of customers held by individual retailers in each jurisdiction and the HHI for each jurisdiction.¹⁰²

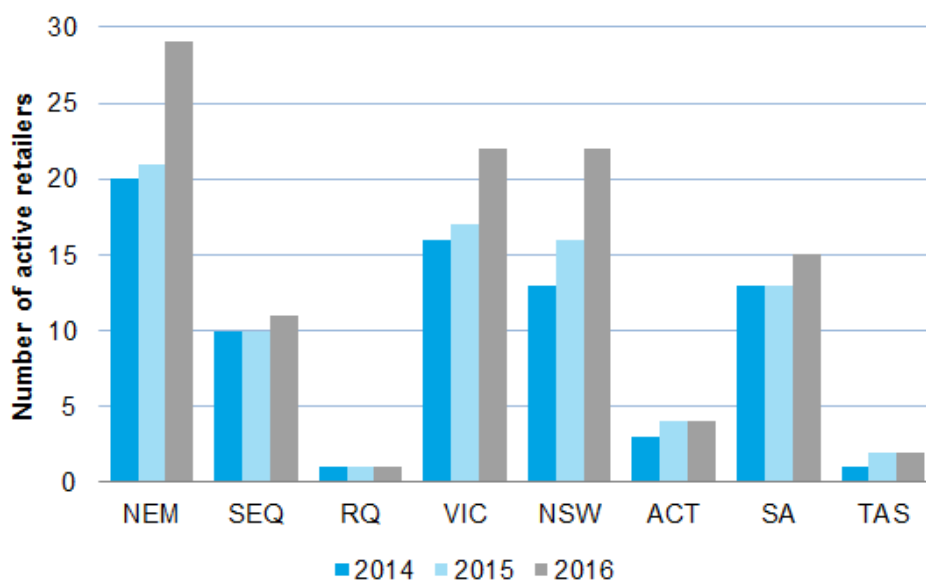
Overall, we found the level of retail electricity market concentration has decreased over time in all NEM jurisdictions except Tasmania.

10.2.1 Changes in number of active retailers

From February 2015 to February 2016 the number of electricity retailers active across NEM jurisdictions increased from 21 to 29 (see Figure 10.1). As discussed in Chapter 9, six new electricity retailers entered the New South Wales market in 2015, and five entered the Victorian market. There were also two new entrants in South Australia and South East Queensland, and no new entrants in regional Queensland, the Australian Capital Territory or Tasmania (see Appendix C for more detail).

¹⁰² The HHI measures the size of firms in relation to the industry. Higher HHI scores close to 10000 indicate a highly concentrated, non-competitive market environment, while those closer to zero indicate a much more competitive market. The ACCC's Merger Guideline document indicates that HHI levels above 2000 are indicative of a concentrated market.

Figure 10.1 **Number of active retailers (electricity, NEM and by jurisdiction)**



Source: AEMO, AEMC analysis

10.2.2 Short-term changes in market share

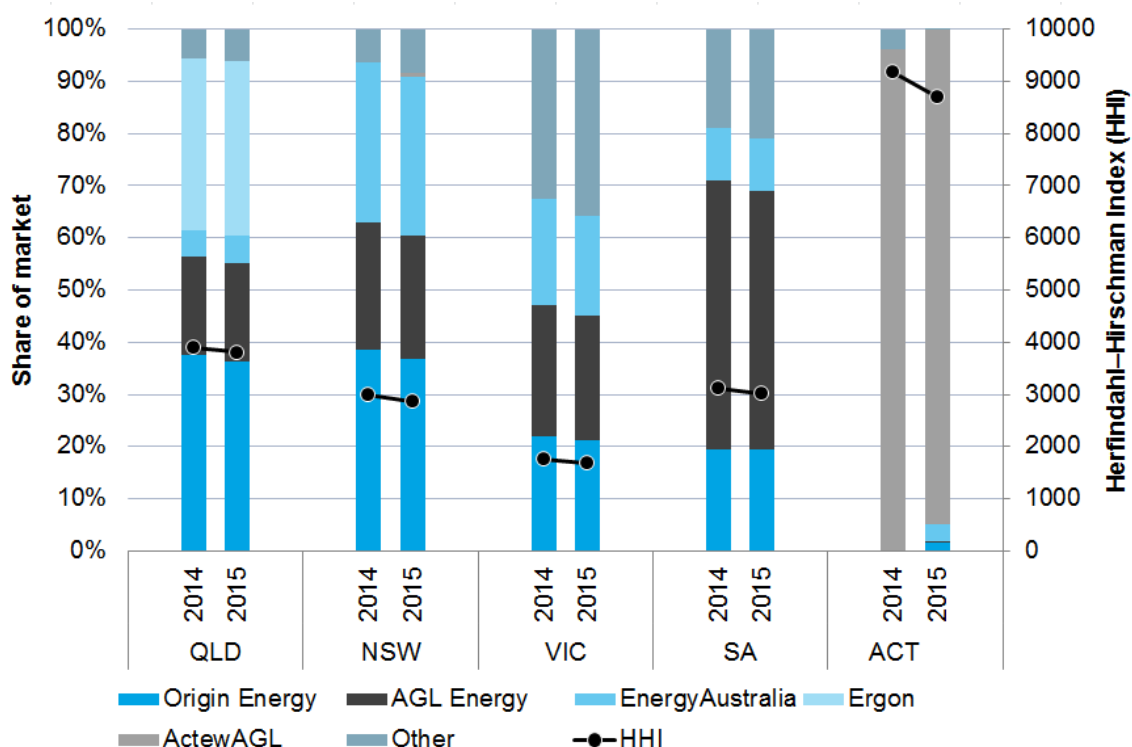
From 2014 to 2015 there were relatively minor but positive changes in market share (Figure 10.2). In all NEM jurisdictions except Tasmania,¹⁰³ the combined share of the big three (or incumbent) retailers decreased while that of second tier retailers increased. The HHI score for all jurisdictions except Tasmania also decreased, indicating improvements in the level of market concentration.

In Victoria, the combined market share of second tier retailers increased from 35 per cent in 2014 to 37 per cent in 2015. The HHI score decreased by 4.9 per cent, from 1765 to 1679. This is by far the lowest HHI score of all NEM jurisdictions, and is the only score below 2000. This likely reflects the greater maturity of competition in Victoria's electricity market and that retail prices have been deregulated in Victoria for a longer period than in other NEM jurisdictions (see Table 10.1 for more detail).

In New South Wales, the big three retailers continued to dominate the electricity market. However, second tier retailers' combined market share increased from 6.8 per cent in 2014 to 8.6 per cent in 2015, and the jurisdiction's HHI score decreased by 4.5 per cent from 2988 to 2854.

¹⁰³ In this section, we have not included results for Tasmania as the electricity market is largely supplied by one retailer. In addition, results for Queensland are for the whole jurisdiction as the data we relied on did not distinguish between South East Queensland and regional Queensland.

Figure 10.2 Short-term changes in market share, 2014 to 2015 (electricity, by jurisdiction)



Note: AER market share was based on the whole of QLD, HHI for SE QLD only.

Source: AER, AEMO, AEMC analysis

In the Australian Capital Territory, the incumbent retailer is ActewAGL. Origin Energy and other retailers increased their collective market share at the expense of the incumbent over the year, and the jurisdiction's HHI score decreased by five per cent. However, the Australian Capital Territory remains highly concentrated. ActewAGL has a market share of nearly 95 per cent of customers, and the jurisdiction's HHI score is 8702.

Tasmania also remains highly concentrated. There is still only one retailer active in the jurisdiction's residential segment, Aurora Energy. While a second retailer, ERM Power, competes in the small business segment, this segment represents a very small share of the total retail market.

10.2.3 Longer term changes in market share

Looking over a five-year period, the changes in market share across the NEM are more pronounced. Since 2010, second tier retailers have gained between 2.1 and 12.6 per cent of the electricity market at the expense of the big three (or incumbent) retailers in NEM jurisdictions (excluding regional Queensland and Tasmania). This range likely reflects different stages of competition in individual jurisdictions. For example, while all currently have full retail contestability, those that also have deregulated electricity prices have the greatest penetration of second tier retailers in their respective markets (Table 10.1).

Table 10.1 **Longer term changes in market share, 2010 to 2015 (electricity, by jurisdiction)**

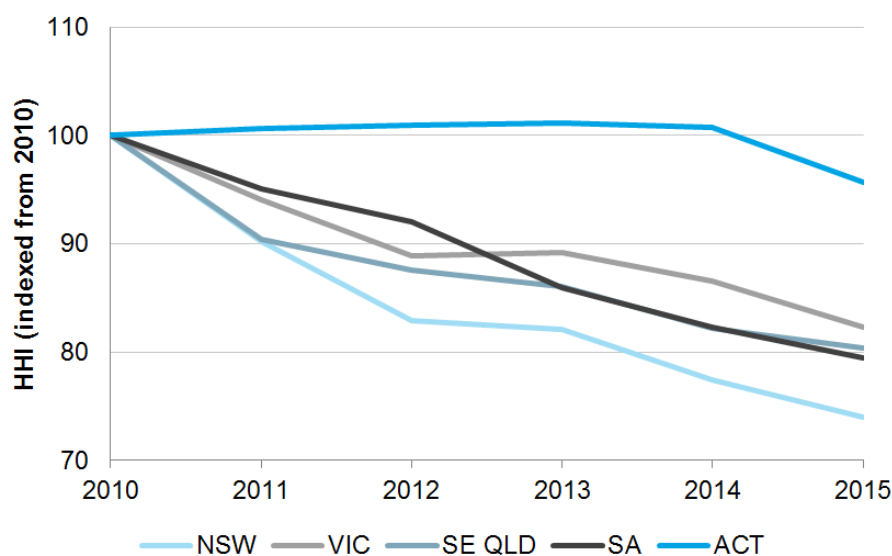
Jurisdiction	Combined big three market share		Second tier gain	Full retail contestability	Deregulated electricity pricing
	2010	2015			
South East Queensland	94.9%	90.3%	4.6%	2007	-
New South Wales	99.0%	91.4%	7.6%	2014	2014
Victoria	75.5%	62.9%	12.6%	2009	2009
South Australia	86.1%	78.8%	7.3%	2013	2013
Australian Capital Territory	99.8%	99.6%	0.2%	2003	-

Note: While ActewAGL is a partnership arrangement between the Australian Capital Territory Government and AGL, it has been included as a large retailer for the Australian Capital Territory. Customers do not have an effective choice in Tasmania so it has not been included.

Source: AEMO, AEMC analysis.

The changes in the jurisdictions' HHI scores are also more pronounced over the longer term. Figure 10.3 shows how these scores have changed relative to their 2010 levels. There have been decreases of around 20 per cent over five years in South East Queensland, New South Wales, Victoria and South Australia, though each of these markets had quite different levels of concentration in 2010. In the Australian Capital Territory, there has been a small but significant decrease over the last year only, due to the entry of new retailers. While the NEM jurisdictions all started from different bases due to their historical levels of market concentration, there is a trend of consistent improvement.

Figure 10.3 Longer term changes in HHI scores, 2010 to 2015 (electricity, by jurisdiction)



Source: AEMO, AEMC analysis

10.3 Customer switching in electricity markets

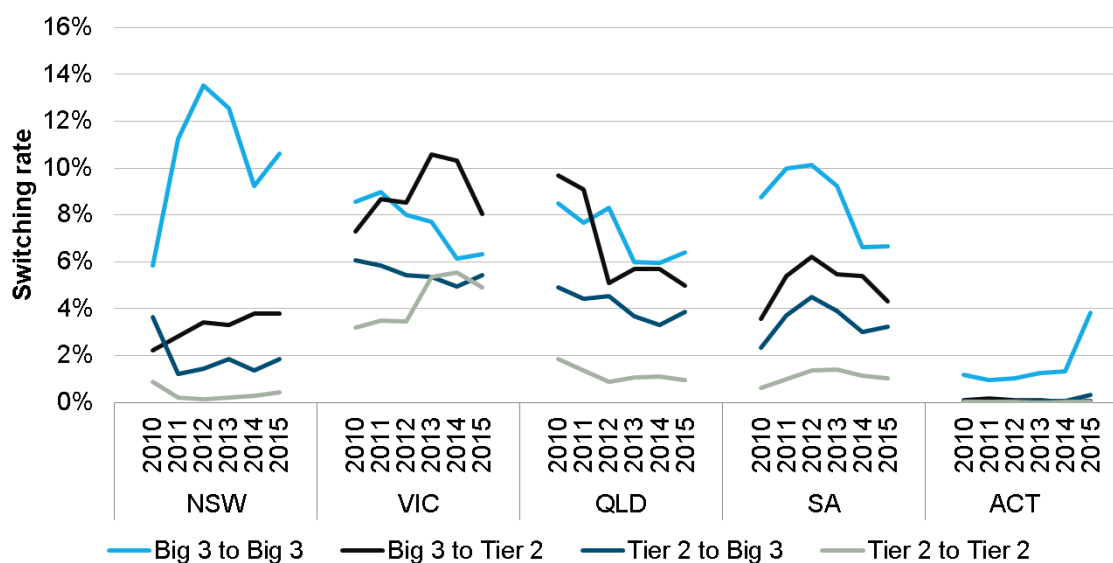
The rate at which customers switch their energy retailer can be an indicator of the level of independent rivalry among retailers. Data about which retailers customers are switching to and from also provides information on the competitiveness of the market. For instance, switching to second tier retailers can be a good indicator of competition as it suggests customers are not necessarily biased towards the larger retailers and have the confidence to try smaller, lesser known retail brands. Alternatively, switching to and between the big three retailers suggests that the larger retailers are competing more effectively to attract new customers.

As Chapter 7 discussed, customer switching rates in electricity markets in 2015 were in line with those for the previous year. Around 19 per cent of customers across NEM jurisdictions (excluding regional Queensland and Tasmania) switched retailers during the year.

Figure 10.4 provides a breakdown of the switching rates between (and within) retailer tiers for each NEM jurisdiction (excluding Tasmania) from 2010. The general trend of customers switching away from the big three to second tier retailers slowed across the NEM over this period, and started to reverse in 2015. This is likely due to renewed efforts by the big three retailers to improve their customer retention and offer more competitive products in the market. The trend differed in the Australian Capital Territory, where there was a significant increase in big three to big three retailer switches from 2014 to 2015. This reflects the entry of Origin Energy into the market dominated by the incumbent, ActewAGL.¹⁰⁴

¹⁰⁴ ActewAGL is not one of the big three retailers, but is comparable with these large retailers within the Australian Capital Territory due its previous monopoly status and dominant market position.

Figure 10.4 Switches within and between retailer tiers, 2010 to 2015 (electricity, by jurisdiction)



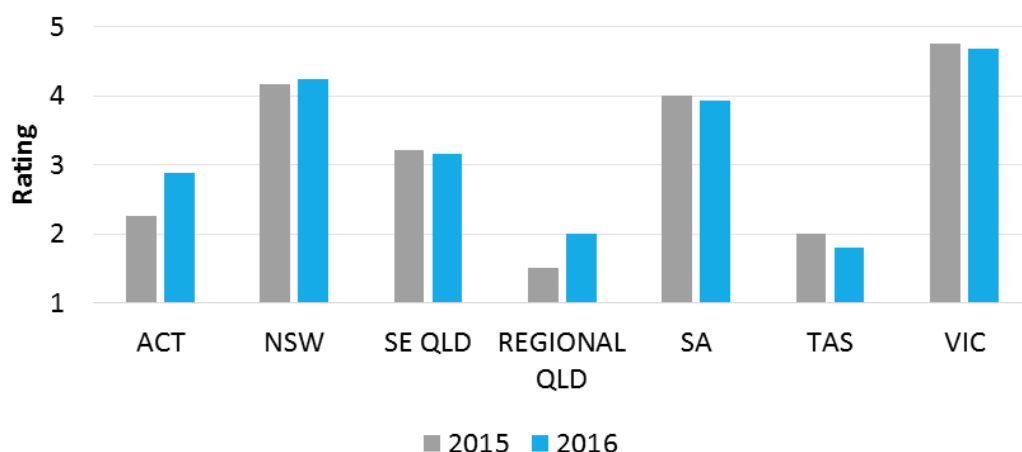
Source: AEMO, AEMC analysis

The rate of switching from second tier to other second tier retailers generally remained steady across most jurisdictions between 2010 and 2015 (see Figure 10.4). In Victoria, switching between second tier retailers increased to 2014, then decreased in 2015.

10.4 Retailer views on levels of competition and rivalry in electricity markets

As part of our retailer surveys and interviews, we asked retailers to rate the overall level of competition in retail electricity markets in the NEM in 2016, and compared their responses to their 2015 ratings. As Figure 10.5 shows, retailers' average ratings for each jurisdiction indicate they consider competition to be strongest in the jurisdictions where retail prices are deregulated, with South East Queensland not far behind. They also consider that while there was little movement in the overall level of competition in most jurisdictions, there was some improvement in the Australian Capital Territory due to the entry of more retailers in the market. The change in regional Queensland is not significant and due to a small sample size.

Figure 10.5 **Retailer views on overall level of competition, average rating (electricity, by jurisdiction)**



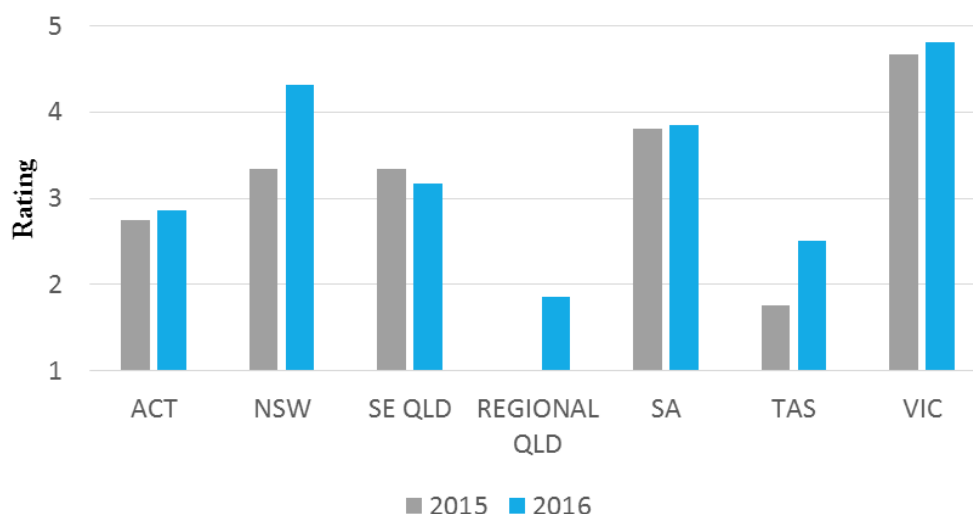
Source: Farrier Swier 2016. Note: Rating scale: 1 non-existent; 2 minimal; 3 moderate; 4 high; 5 very high

We also asked retailers to rate the level of price and non-price rivalry in NEM jurisdictions. Figure 10.6 and 10.7 show their average ratings, which are largely consistent with their ratings for the overall level of competition.

Retailers considered that electricity price rivalry increased in New South Wales from 2015 to 2016. The apparent increases in price rivalry in Tasmania, and in price and non-price rivalry in regional Queensland and Tasmania are not significant due to a small sample size.

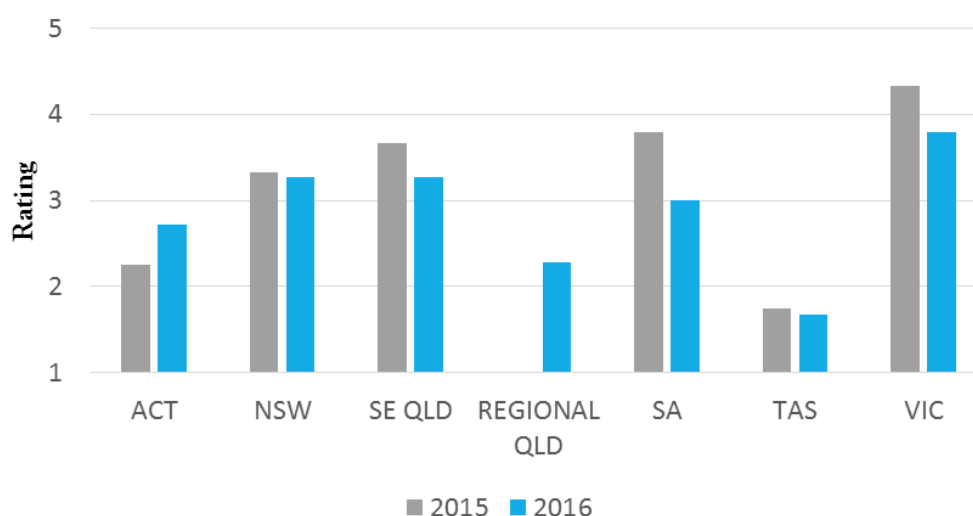
In our view, retailers' ratings of the level of competition and price and non-price rivalry in electricity markets in the NEM are largely consistent with other data and trends we have observed. One notable exception is that, based on their average ratings, retailers consider non-price rivalry decreased in South East Queensland, Victoria and South Australia. This differs from other observations of increasing rivalry on customer service and other factors. However, retailers' ratings may be influenced by their relative views on price and non-price rivalry.

Figure 10.6 Retailer views on level of price rivalry, average rating (electricity, by jurisdiction)



Note: Rating scale: 1 non-existent; 2 minimal; 3 moderate; 4 high; 5 very high; an overall rating of '1' was given for regional Queensland in 2015.
Source: Farrier Swier 2016.

Figure 10.7 Retailer views on level of non-price rivalry, average rating (electricity, by jurisdiction)



Note: Rating scale: 1 non-existent; 2 minimal; 3 moderate; 4 high; 5 very high; an overall rating of '1' was given for regional Queensland in 2015.
Source: Farrier Swier 2016.

10.5 Product differentiation in electricity markets

In a competitive market, retailers will offer a diverse range of products and services to compete for, and to retain customers. As customers have diverse and changing energy needs, market participants need to innovate and differentiate their products and service offerings to meet these needs. By matching the supply of products and services with demand, product differentiation can help retailers remain competitive through different market segments.

Retailers can differentiate their products and services in a range of ways. Traditionally, retailers have used core features such as contract price and contract term to differentiate their flat rate offers. We looked at the diversity and growth of these types of offers, as well as newer types of offers, and other price and non-price incentives that are included with these offers. We also look at some of the other ways alternative energy businesses are engaging with customers to meet their diverse and changing needs.

10.5.1 Flat rate offers

We looked at the number of flat rate offers available in each jurisdiction to understand how retailers are diversifying within the most common offer type in the electricity market. To consider the level of product differentiation within flat rate offers, we used data from government-run comparator websites Energy Made Easy, and Victorian Energy Compare. For each jurisdiction, we identified:

- the number of market and standing offers available to a representative customer, defined as a residential customer with a representative level of annual electricity consumption for that jurisdiction;¹⁰⁵ and
- the range of effective discounts available to this representative customer, which reflect the savings they would likely receive off their total annual bill.¹⁰⁶

We found that product differentiation among flat rate offers appears to be greatest in jurisdictions where retail prices have been deregulated. In Victoria, South Australia and New South Wales, customers have a significantly greater choice of retailers and plans than in other jurisdictions.

Across the NEM, we identified 758 residential flat rate electricity residential offers from 29 retailers (33 brands) as at 27 February 2016. This included 520 market offers and 238 standing offers. The number of market offers available increased by 39 (or eight per cent) since 2014. Some of this increase can be attributed to the entry of new retailers, as eight new electricity retailers have entered the NEM since 2014. This is a broadly positive outcome for customers, reflecting greater choice and new products to choose from.¹⁰⁷

Retailers continued to compete by discounting. The size of the discount and how it was applied varied across offers. For some, the discount applied to the whole electricity bill,

¹⁰⁵ This consumption level varies across jurisdictions due to variations in climate and other environmental factors, gas penetration and use of controlled load. We calculated the representative annual consumption level from benchmark values published by the AER, or provided to the AEMC by state and territory government officials. Further information about the assumptions underlying jurisdictional representative consumer energy consumption can be found in the AEMC, *2015 Residential Electricity Price Trends Report*, final report, AEMC, 4 December 2015, Sydney, <http://www.aemc.gov.au/Markets-Reviews-Advice/2015-Residential-Electricity-Price-Trends>.

¹⁰⁶ Retailers generally offer nominal discounts based on either the total bill, or the usage component of the bill. They also typically describe the discount as a percentage discount from a standing offer rate, or some other market offer rate. This means that if the nominal discount was based on the usage component only, the effective discount off the total bill is lower.

¹⁰⁷ Some products being offered by retailers are offered across multiple distribution networks in a jurisdiction, which has the effect of inflating the total number of offers in jurisdictions with multiple distribution networks.

while for others, it applied to the energy usage component only. In addition, for some offers the discount was in comparison to the retailer's standing offer tariffs. For others, it was in comparison to another of the retailer's market offer tariffs, which in some cases were higher than the retailer's standing offer tariffs. This issue is discussed more in Chapter 11.

We identified that the jurisdictions where retail prices have been deregulated for longer had the strongest focus on discounting. Victoria had the highest maximum effective discount on offer at 27 per cent. This was followed by South Australia and New South Wales with 21 and 20 per cent, respectively. In most jurisdictions, the most common effective discounts ranged from around four to 12 per cent. The exception was in Victoria, where common effective discounts ranged between 13 and 24 per cent.

Retailers also competed heavily on contract term. Terms on offer ranged from no fixed contract term and specific contract terms from one to five years. The majority of offers in NEM jurisdictions were for no fixed term, or for ongoing contracts with fixed benefit periods. Of offers that specified a fixed contract term, two years was the most common term.

10.5.2 Time-of-use pricing

As more customers have meters installed with advanced capabilities such as remote access, connection and disconnection, retailers will be able to offer customer more flexible pricing options such as time-of-use pricing.

As Victoria has near complete penetration of advanced meters because of the state governments' 2006 mandatory roll-out, Victoria also has the most time-of-use retail offers with 363, followed by New South Wales with 269. Interestingly, in both of these states, the number of time-of-use offers exceeds the number of flat rate offers available. In Victoria, this is largely due to the requirement for retailers to provide all customers with time-of use tariffs under the Advanced Metering Infrastructure program.¹⁰⁸ However, the uptake of flexible pricing offers has been slow, with only 0.27 per cent of customers estimated to have taken these up in 2014.¹⁰⁹ In New South Wales, it is also noted that many customers do not have advanced meters and cannot access these offers.

Other jurisdictions have fewer time-of-use offers, mostly owing to the lower penetration of advanced meters that are required to take this pricing option. South Australia, South East Queensland and the Australian Capital Territory have six, 15 and nine time-of-use offers respectively.

10.5.3 Price and non-price incentives

Retailers are also differentiating through other price and non-price incentives. These incentives are often added to flat rate offers such as those discussed above. These are designed to both attract new customers and help retain existing customers. Table 10.2

¹⁰⁸ See Victorian Government Gazette, No. S 216 Wednesday 19 June 2013, <http://www.gazette.vic.gov.au/gazette/Gazettes2013/GG2013S216.pdf>

¹⁰⁹ Victorian Auditor General, *Realising the benefits of smart meters*, September 2015, <http://www.audit.vic.gov.au/publications/20150916-Smart-Meters/20150916-Smart-Meters.pdf>.

provides a non-exhaustive sample of some of the price and non-price incentives we identified across the NEM.

Table 10.2 Current price and non-price incentives (electricity, across NEM)

Incentive type	Incentives	Examples of retailers offering the incentive
Price	Discounts such as pay-on-time (applied to either whole bill, or usage component) or discounts for direct debit arrangements	AGL, Energy Australia, Origin Energy, 1st Energy and Simply Energy
Price	Products with simplified payment structures	Origin Energy and MojoPower
Price	Unconditional sign up credit	AGL, Momentum, Energy Australia
Price	Loyalty credits for not leaving retailer within fixed period (3, 12, or 24 months)	Origin Energy, Alinta, CovaU
Price	Rate freeze	Origin Energy, Energy Australia
Price	Bonus credits for bundling electricity and gas (or other non energy) services	Energy Australia, Commander
Non-Price	Green credentials including Greenpower, support for varied renewables generation, and carbon offsetting	Diamond Energy, Momentum Energy, Origin, Powershop, AGL, Urth Energy
Non-Price	Customer service guarantees and awards for service	Click Energy, 1st Energy and Simply Energy
Non Price	Provision of advanced data and information services	MojoPower, 1st Energy, and Powershop
Non-Price	Bonus grocery or shopping vouchers for new customers	CovaU and Origin Energy
Non-Price	Access and points to specialised rewards programs such as frequent flyer programs	AGL, Red/Lumo Energy

Source: EnergyMadeEasy comparator website; Victoria Energy Compare comparator website

As this sample shows, retailers include a great variety of additional incentives in their offers. Most of the incentives appear to be designed to attract new customers. These include specific service features such as customer service, green credentials and advanced services, as well as benefits unrelated to the energy product such as shopping vouchers and rewards schemes.

Some price based incentives, however, are designed to retain customers. For example, Origin, Alinta and CovaU have offers that provide customers with a loyalty credit that is available to the customer only after they have remained with the retailer for a

specified period. Some of these require the customer to stay with the retailer for up to 24 months in order to receive the loyalty credit.

These price and non-price incentives are popular add-ons to most flat rate offers. These were included on an average of 60 per cent of all offers in all NEM jurisdictions except regional Queensland and Tasmania which did not include other price and non-price incentives.

There may also be further room for retailers to provide offers that provide simplicity and convenience, as opposed to more customised or tailored solutions. For example, one of Origin Energy's offers provides fixed monthly bills. While such offers can blunt customers' incentives to manage their usage, they reduce the requirement for them to navigate through complex information about energy and reduce the risk of 'bill shock'. We consider they provide further evidence of a market that is innovating to provide features that customer's value.

10.5.4 New products and services

As Chapter 5 discussed, new and emerging technologies and services have enabled new business models to emerge, and are changing the nature of the relationship between customers and their electricity retailer. These new energy service providers apply competitive pressure to "traditional" retailer business models by opening up new channels for customers to manage their own energy usage.

These emerging energy technologies and services are growing in popularity. Competition among retailers to meet this demand is growing fast, and new energy service providers are competing against "traditional" retailers. As at May 2016, there were 103 energy businesses that offer solar power-purchase agreement offers to customers across NECF jurisdictions, and 34 of these provide services solely or primarily to the residential market. The products and services these businesses offer compete against those that "traditional" retailers offer. Some "traditional" retailers have now entered the PPA market to compete more effectively with these energy service providers.

The growing interest in battery storage technologies may follow a similar path as that of solar PV in Australia. While there are a handful of installations of battery storage systems in Australia, this market is set to grow substantially as technology costs fall. Competition among retailers and energy service providers to meet this demand has potential to grow rapidly.

10.5.5 Solar offers

The range of offers available to solar PV customers (solar offers) is similar to the range available only to customers without solar (solar excluded offers). For our representative customers, the range of bill outcomes for solar excluded offers is no more favourable than the range of outcomes for solar offers. Put another way, a customer with solar has access to similar prices as a customer without solar.

However, there is some evidence of individual retailers charging higher prices to solar customers. For example, in one jurisdiction a specific retailer has a range of market offers that are between five and 10 per cent higher for solar customers. A representative

customer (who has no solar panels) would see a five to 10 per cent increase in their bill were they to move from the non-solar to the solar offer available from this retailer.

10.6 Market concentration in gas markets

To assess the levels of market concentration across gas markets, we examined the same matters as for electricity markets. These included changes in the number of active retailers, and in market share as measured by the relative share of customers held by individual retailers and the HHI score for each jurisdiction.

10.6.1 Changes in number of active retailers in gas markets

In 2014-15, there were 14 retail gas brands active across the jurisdictions, representing 12 companies.

As Chapter 9 discussed, only two new brands (and one new company) entered the gas market during the year, both in New South Wales.

It appears likely that the small numbers customer base, uncertainty regarding future wholesale gas prices and inability to access transmission capacity may be deterring additional gas retailers from entering gas markets in South East Queensland, Tasmania and the Australian Capital Territory (see Chapter 9 for further analysis).

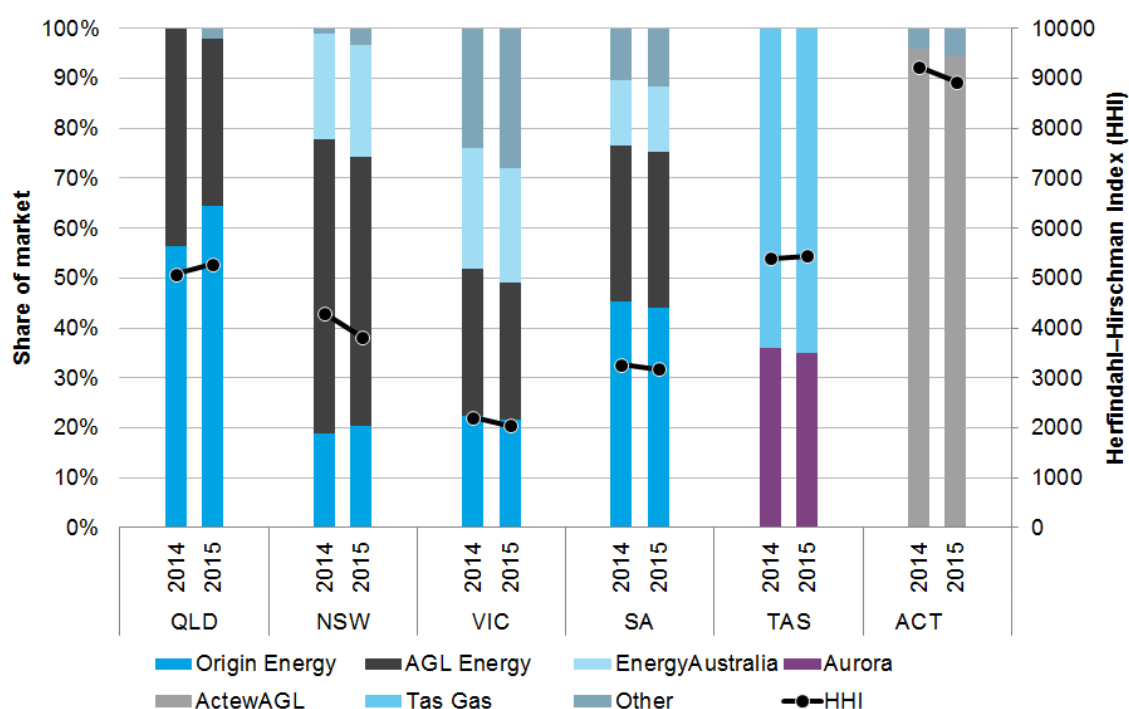
10.6.2 Changes in market share

Between 2014 and 2015, the changes in gas retailers' market share were relatively minor (Figure 10.8). In New South Wales, Victoria, South Australia and the Australian Capital Territory, these changes were positive, with increases in the combined market share of second tier retailers. These jurisdictions' HHI scores also trended downwards, indicating improvements in the level of market concentration. Victoria's HHI score decreased from 2212 to 2050, and continued to be the lowest score of all gas markets.

In Queensland and Tasmania, the changes in market share were negative. The combined share of the largest retailers increased slightly in these markets, and their HHI scores increased.

Data on longer term changes in gas market share were not available.

Figure 10.8 Changes in market share, 2014 to 2015 (gas, by jurisdiction)



Source: AER, AEMC analysis

10.7 Customer switching in gas markets

As Chapter 7 discussed, gas customer switching rates generally slowed between 2014 and 2015. Around 17 per cent of customers across the jurisdictions switched gas retailers during the year, compared to 20 per cent in 2014 (see Figure 7.7).

Gas customer switching rates also continued to be slightly lower than those of electricity customers (see Figure 7.6). Responses to our customer and retailer surveys suggest that gas may be a secondary consideration for most customers, as those who prefer dual fuel offers may switch gas plans when they switch electricity.

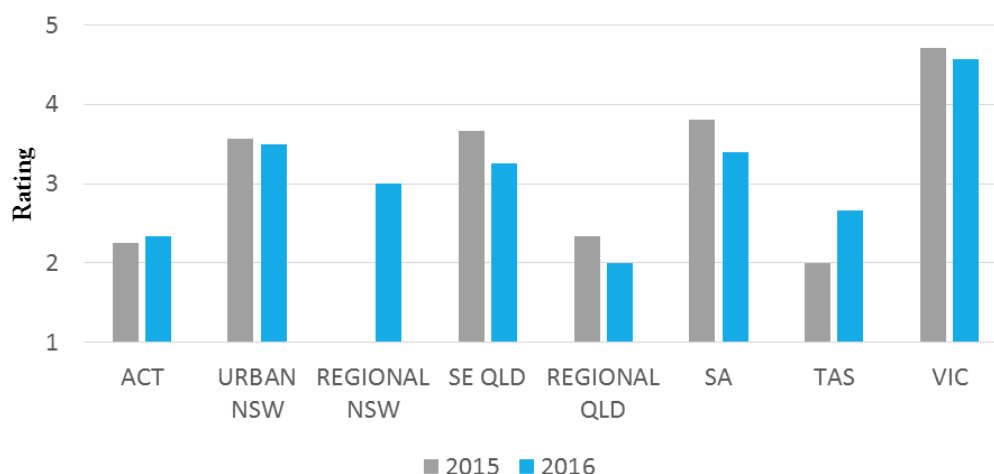
10.8 Retailer views on levels of competition and rivalry in gas markets

As for electricity, we asked retailers to rate the overall level of competition in gas markets in 2016, and compared their responses to 2015. As Figure 10.9 shows, their average ratings indicate they considered there was little change in the overall level of competition in all jurisdictions except Tasmania. They continued to consider competition is highest in Victoria (between high and very high), and lowest in the Australian Capital Territory and regional Queensland (minimal).

In retailers' view, the key determinants of gas competition in jurisdictions are the levels of gas penetration, the existence of price deregulation, and market size.

The AEMC considers that retailers' assessments of the level of competition in gas markets are consistent with the other indicators of competition we examined.

Figure 10.9 **Retailer views on overall level of competition, average rating (gas, by jurisdiction)**



Note: Rating scale: 1 non-existent; 2 minimal; 3 moderate; 4 high; 5 very high; no data is available for regional New South Wales in 2015, Tasmanian 2016 result based on 3 responses.
Source: Farrier Swier 2016.

10.9 Product differentiation in gas markets

There is less product differentiation in retail gas markets than retail electricity markets. Differentiation was largely around core features of gas offers such as the discount rate, contract price and contract term, though some price and non-price incentives were observed.

To assess product differentiation in gas markets, we used information from the Energy Made Easy website to identify the number of offers available in South East Queensland, New South Wales, the Australian Capital Territory and South Australia, and the average nominal discount rate in these jurisdictions. For Victoria, we used information from the Victorian Energy Compare website. As the AER does not collect information on Tasmanian gas offers, we obtained this information from retailer websites.

Across the jurisdictions we identified 477 offers (342 market and 135 standing) from 14 retail brands representing 12 companies.¹¹⁰ Over 70 per cent of these offers come from Victoria where a large proportion of the state has access to reticulated gas.

Retailers considered that there had been no significant changes to gas rivalry between 2015 and 2016 in any jurisdiction other than in Victoria. Retailers viewed Victoria as the only gas market with a 'high' to 'very high' degree of rivalry. The New South Wales urban market was rated as having 'moderate' to 'high' rivalry, while regional New South Wales, South East Queensland, and South Australia were rated as 'moderate'. Retailers rated the Australian Capital Territory as having 'minimal' rivalry, and rivalry in regional Queensland was considered non-existent.¹¹¹

¹¹⁰ There appears to be a large number of offers in Victoria. This is due to the significantly higher penetration of gas in the Victorian market, and that offers may duplicated across the three Victorian gas networks. The number of gas offers noted in the 2015 review were collected using a different methodology that considered only a small number of postcodes.

¹¹¹ Farrier Swier Consulting, *2016 Energy Retailer Survey*, report to the AEMC, March 2016, p. 74.

11 Competitive retail prices

Generally, where competition is effective, retail prices reflect the efficient costs of supplying the product. These efficient costs decrease over time as retailers strive to improve their competitive position by making efficiency gains. Retail price outcomes are not solely the result of competition – they are also influenced by the demand for the product, and its underlying cost of supply. Nevertheless, the trends in these outcomes can provide useful insights into competition.

Retail margins, or the difference between retail prices and the marginal cost of supply, can also provide insight into state of competition. However, unlike prices, retail margins cannot be easily observed and measured. They are also difficult to estimate with certainty, as all estimates depend heavily on the assumptions used.

To review competitive retail electricity price outcomes across NEM jurisdictions, we considered:

- *Bill outcomes and discounts* – based on the offers available to a representative residential customer in each of the competitive markets, we looked at the range of total bill outcomes and discounts.
- *Publicly available information on retail margins* – we reviewed recent studies that analysed retail margins to assess their implications for our assessment of competition.

The sections below outline our main findings on competitive retail price outcomes and then discuss in more detail our findings on bill outcomes and discounts in electricity and gas markets and on retail margins.

Note that we did not analysis bill outcomes and discounts in regional Queensland for electricity and gas or in Tasmania for electricity, as customers do not have an effective choice of offers in those regions.

11.1 Main findings on competitive retail prices

Our analysis of retail electricity bill outcomes and discounts provides evidence of strong price-based competition in New South Wales, Victoria and South Australia and some price-based competition in South East Queensland and the Australian Capital Territory.

Customers can achieve substantial discounts by moving from a standing offer to a market offer. The highest discounts are available in Victoria at around 30 per cent followed by New South Wales and South Australia, each at around 20 per cent. Lower levels of discounting are available in South East Queensland and the Australian Capital Territory, with the highest discounts at around 10 and eight per cent respectively.

The level of discount specified in market offers may provide customers with a reasonable proxy for the bill savings they will make relative to other offers. However, it is still important for customers to compare offers when they are searching for a better deal. Our analysis identified some examples where a bill for a representative customer on an offer with a large discount would be higher than other offers with more modest discounts.

The level of discounts in market offers have been growing over time. As a result, there is a growing separation between standing and market offers, particularly in Victoria and New South Wales. This is a critical finding, as it raises potential concerns that:

- customers who do not switch to market offers have high bills;
- customers on market offers may experience a significantly higher bill where a payment is late if they forfeit a 'pay on time' discount and so pay a bill equivalent to the standing offer price; and
- that customers who have not switched in more than a few years and whose discount periods have ended may be on prices that are closer to standing offer levels than the best market offers available today.

In relation to retail electricity margins, we reviewed recent studies that examined retail margins across the NEM. No evidence presented in these studies would lead us to conclude that retail margins in Victoria, or indeed any other jurisdiction with deregulated prices, are inconsistent with effective competition. To the contrary, a persistent theme of the studies is that the market offers that retailers are providing in deregulated jurisdictions are enabling customers to reduce their bills.

Based on these findings, the Commission reaffirms its previous advice to customers that they shop regularly for an energy offer that suits their needs, and emphasises that the benefits of doing so continue to increase. In addition, as Chapter 4 discussed, we have recommended that we continue to monitor the growing gap between standing and market offers through the annual retail competition review. We have also recommended that jurisdictions develop communication strategies to promote customer engagement in the retail energy markets (see section 4.8).

11.2 Bill outcomes and discounts in electricity markets

To analyse bill outcomes and discounts available in competitive retail electricity markets, we used the same broad approach as for our 2015 review. In particular, we:

- collected data on the prices (retail offers) available to a representative residential customer¹¹² in each of the NEM jurisdictions where customers have an effective choice of retailer.
- calculated the total annual bill outcome for such a customer under each offer including all discounts, as well as the effective discount¹¹³ under each offer.
- looked at the trends in bill outcomes for market and standing offers, and for big three retailer and second tier retailer offers, and compared the bill outcome and the effective discount for each offer.

¹¹² As for our analysis of product differentiation (see Chapter 10), we defined a representative customer in each jurisdiction as one with average annual consumption for that jurisdiction. This representative customer profile is consistent with that assumed for the AEMC's 2015 Residential Electricity Price Trends Report.

¹¹³ We defined the concept of the total effective discount in chapter 10.

By basing our analysis on a representative customer's consumption, we can monitor bill outcomes across jurisdictions and over time,¹¹⁴ and identify any trends that signal stronger or weaker competition, and which may warrant further investigation.

As we have previously stated, no analysis can determine an 'optimal' level for retail prices in competitive markets. There is no obvious, objective reference point with which we can compare an observed retail price. In addition, as we do not have access to information about the underlying costs of supplying customers under different offers, we cannot definitively conclude that prices are, or are not, consistent with a competitive market.

The sections below outline our findings on bill outcomes and discounts in each jurisdiction. Box 11.1 provides more detail on our data sources and approach for this analysis. See Appendix C for more data.

Box 11.1 Approach for calculating bill outcomes and discounts

To assess bill outcomes and discounts, we collected information on all retail offers available to a representative residential customer in each NEM jurisdiction from the following two data sources:

- The database underpinning the Energy Made Easy website, which contains current and historical offers for all NEM jurisdictions except Victoria.
- The database underpinning the Victoria Energy Compare website (previously the My Power Planner website), which contains offers for Victoria.

We collected all flat rate offers from each of these databases. For all jurisdictions except Victoria, the data set consisted of three 'snapshots' of all published offers available at three points in time: 21 March 2016, 15 October 2015 and 23-28 February 2015.

For Victoria, we identified inconsistencies in the March data set available from the Victoria Energy Compare Website. Therefore, we used offers available as at 15 October 2015 – the last point in time at which the database appeared to be complete.

The analysis set out in this chapter focusses on the most recent snapshot of offers for each jurisdiction. Given that we only have three snapshots, there is limited scope to draw conclusions about changes in prices over time. Notwithstanding this, in preparing our analysis we have tried to identify any trends that are emerging over time, and where relevant we have included results from this historical analysis in this chapter.

Once we collected information on all offers, we calculated the total annual bill under each offer. In practice, this involved the following two steps:

- Calculating the undiscounted bill – we calculated the total bill for a representative customer for every offer available to them in a jurisdiction.

¹¹⁴ It is not feasible to investigate the range of prices for all types of customers on all available energy plans, nor would we expect such analysis to yield further insights.

The total bill comprises supply charges and consumption charges for each defined block.

- Adjusting this bill for discounts – we adjusted the bill to account for all guaranteed and conditional discounts. We assumed that customers take advantage of all conditional discounts (eg, discounts for paying by direct debit or for paying on time). We recognise that many customers will not receive all conditional discounts, for example, our customer survey found that 8 per cent of customers were on a pay-on-time discount and had missed or been late paying at least one bill in the last 12 months.¹¹⁵

11.2.1 South East Queensland

For South East Queensland, we assumed that the representative customer has annual consumption of 5173 kWh, of which 1552 kWh is for controlled load. We excluded GreenPower options from our analysis.

Figure 11.1 summarises our findings on the range of bill outcomes for such a customer, including the number of market offers (in red) and standing offers (in blue) that would yield each outcome. We note the following:

- the retail price in South East Queensland is regulated, and so most standing offers are the regulated price, which yields median annual bill of \$1434¹¹⁶;
- market offers can yield discounts of up to \$140 off the median standing offer annual bill of \$1434; and
- some market offers exceed the median standing offer bill of \$1434, even after discounts have been applied.

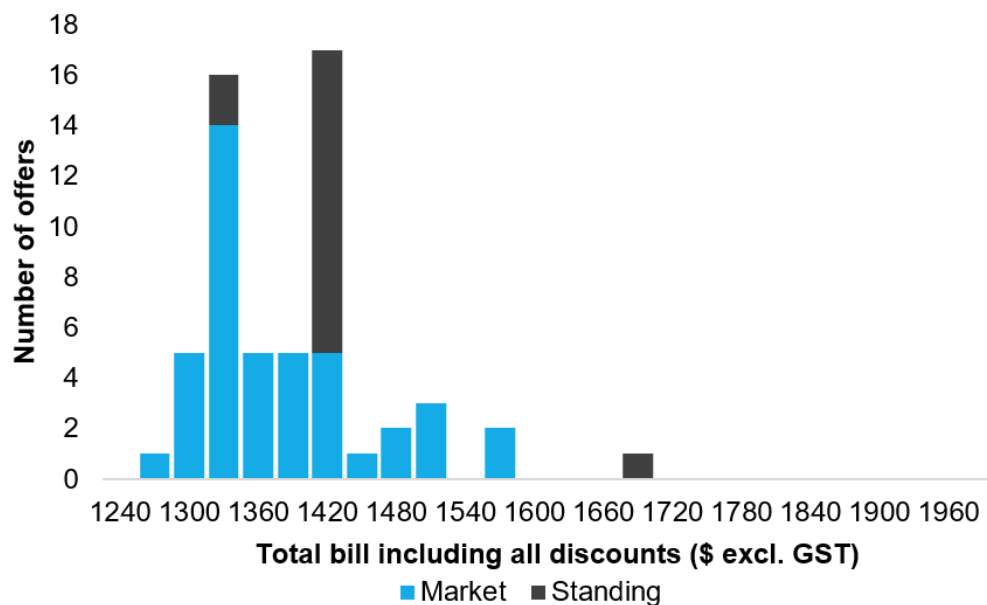
In general, these findings suggest that a representative customer can achieve a discount of up to 10 per cent by moving from a regulated standing offer price¹¹⁷ to a market offer. However, on some market offers a representative customer could pay more than on the regulated standing offer price.

¹¹⁵ See Chapter 7.

¹¹⁶ There are four exceptions: two standing offers that include a discount (yielding bills of \$1348); one offer that is for a more expensive form of controlled load (yielding a bill of \$1534); and one offer that appears to have been entered incorrectly into the database by the retailer (yielding a bill of \$1709).

¹¹⁷ In December 2015, 52 per cent of Queensland customers (including regional Queensland) were on standing offers.

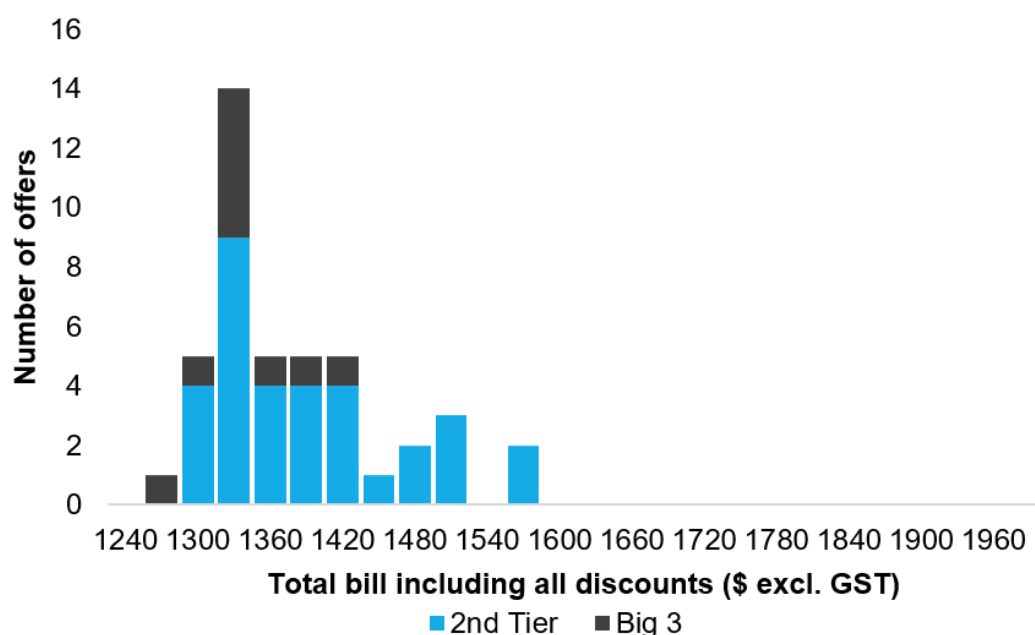
Figure 11.1 **Range of bills for a representative residential customer in South East Queensland – market and regulated standing offers, (electricity, Energex supply area)**



Note: Bill outcomes are based on a representative customer for South East Queensland using 5173 kWh. The representative customer consumption assumptions vary by jurisdictions and thus are not directly comparable.

Figure 11.2 shows the range of bill outcomes for the market offers shown on the figure above, but indicates whether they are from a big three retailer (in orange) or a second tier retailer (in blue). Both retailer tiers provide some offers than yield lower bills for a representative customer. The best market offer from a big three retailer yields a bill of \$1294 and the best from a second tier retailer yields a bill of \$1310.

Figure 11.2 **Range of bills for a representative residential customer in South East Queensland – big 3 and second tier retailer market offers, (electricity, Energex supply area)**



Note: Bill outcomes are based on a representative customer for South East Queensland using 5173 kWh. The representative customer consumption assumptions vary by jurisdictions and thus bills are not directly comparable.

11.2.2 New South Wales

For New South Wales, we assumed that a representative customer has annual consumption of 5936 kWh, of which 1900 kWh is for controlled load. Figure 11.1 shows the range of bill outcomes for such a customer in the Ausgrid supply area, as well as the number of market offers (in red) and standing offers (in blue) that would yield each outcome.

We note the following:

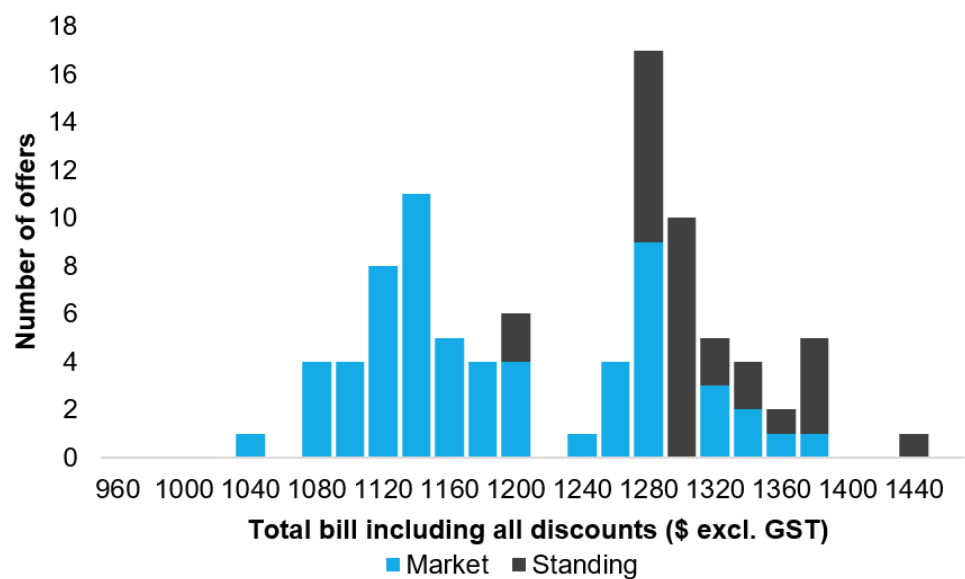
- the median annual bill across standing offers is \$1308 and most market offers provide a discount against this bill;
- market offers tend to yield substantial discounts of up to \$256 versus the median standing offer annual bill of \$1308;
- some market offer annual bills exceed the typical standing offer annual bill, even after discounts have been applied.

In general, the results suggest that a representative customer can achieve a discount of up to 19.6 per cent by moving from a standing offer¹¹⁸ to a market offer. The difference between standing and market offer bills is clearly visible in the figure – there are two distinct groups of bill outcomes, one mostly comprises standing offers and is above and below \$1220, while the other mostly comprises market offers and is below \$1220. This

¹¹⁸ In December 2015, 28 per cent of New South Wales customers were on standing offers.

characteristic is most prominent in the Ausgrid supply area, but is also present in the Endeavour Energy and Essential Energy supply areas.

Figure 11.3 Range of bills for representative residential customer in NSW - market and standing offers, (electricity, Ausgrid Supply Area)

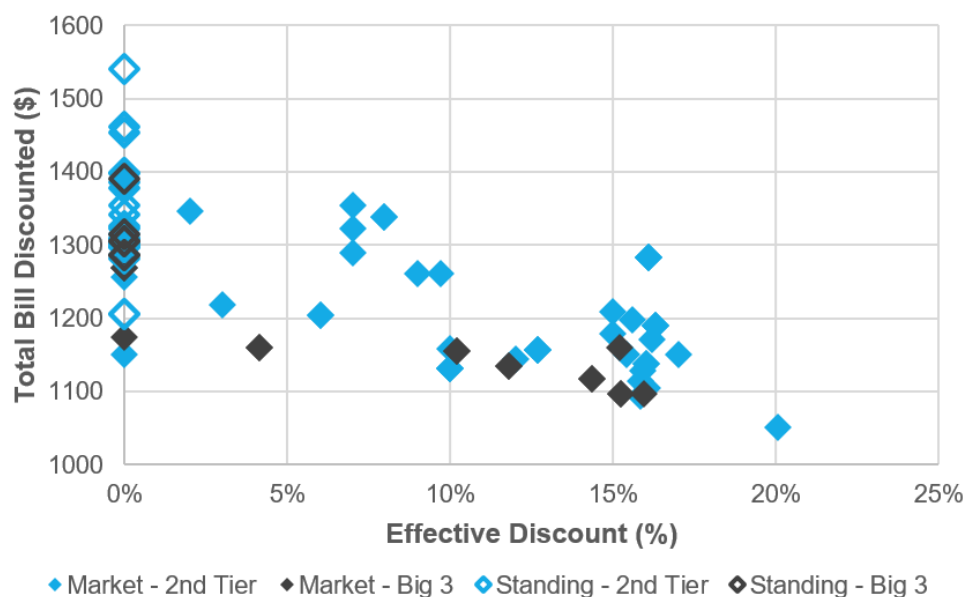


Note: Bill outcomes are based on a representative customer for New South Wales of 5936 kWh. The representative customer consumption assumptions vary by jurisdictions and thus are not directly comparable.

Figure 11.4 plots the bill outcome (including discounts) against the effective discount for each offer available in the Ausgrid supply area. Each point represents a single offer, and its colour distinguishes whether it is a standing or market offer and whether it is from a big three or second tier retailer.

The figure suggests that greater effective discounts are associated with lower bills. However, the considerable spread of bill outcomes indicates that a greater effective discount does not always result in a lower bill. This is because some retailers apply the percentage discount to higher standing offers than others.

Figure 11.4 Bill outcome versus effective discount for a representative residential customer in NSW (electricity, Ausgrid supply area)



Appendix C sets out similar analysis for retail offers in the Endeavour Energy and Essential Energy supply areas.

11.2.3 South Australia

For South Australia, we assumed that a representative customer has annual consumption of 5000 kWh. Figure 11.5 shows the range of bill outcomes for such a customer in the SAPN supply area, and indicates the number of market offers (in red) and standing offers (in green) that would yield each outcome.

We note the following:

- There is a considerable spread in the bills for standing offers. This is partly driven by the use of a variety of seasonal tariff structures by different retailers in South Australia.¹¹⁹ The median bill for a representative customer on a standing offer is \$1712.
- The variation in standing offers means that there is less separation between market and standing offers. Nevertheless, market offers can yield a bill as low as \$1400 – a discount of \$312 off the median bill for standing offer bill.

In general, the results suggest that a representative customer in South Australia can achieve a discount of up to 18.2 per cent by moving from a standing offer¹²⁰ to a market offer. However, on some market offers, a representative customer would pay more than on a standing offer.

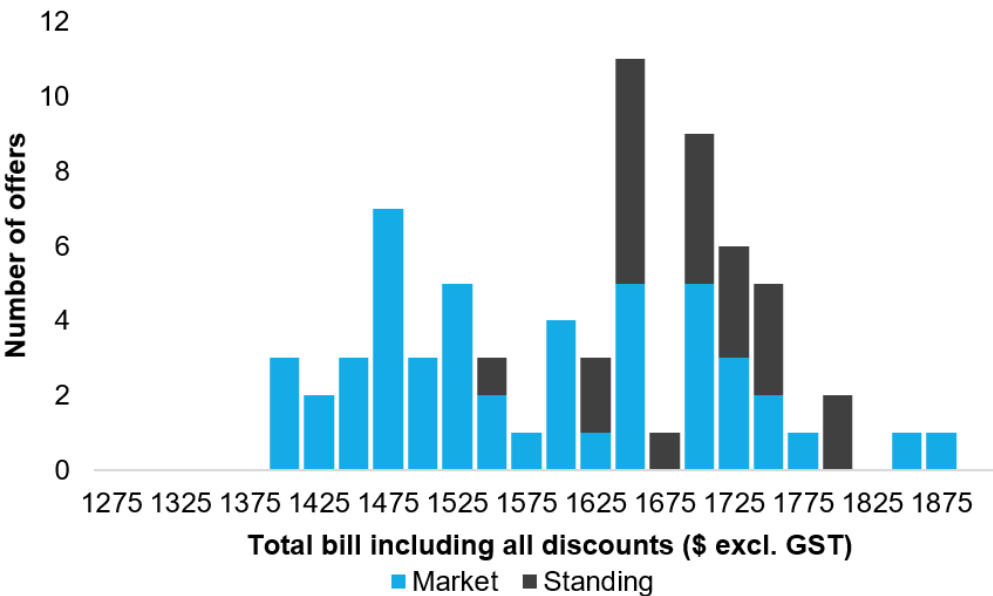
Figure 11.6 plots the bill outcome (including discounts) against the effective discount for each offer available in the SAPN supply area. Each point represents a single offer,

¹¹⁹ Some retailers' standing offers have different tariffs during winter, summer and other periods of the year.

¹²⁰ In December 2015, 15 per cent of South Australian customers were on standing offers.

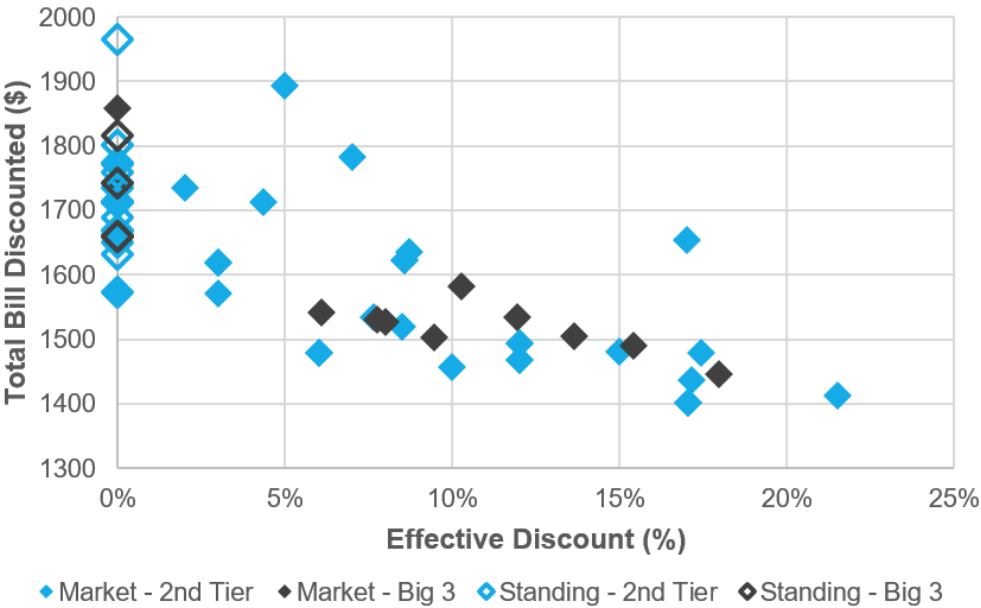
and its colour indicates whether it is a standing or market offer, and whether it is from a big three or second tier retailer. This figure suggests that greater discounts are associated with lower bills. But this is not always the case – some offers with large effective discounts yield higher bills than offers with much smaller effective discounts.

Figure 11.5 Range of bills for representative residential customer in South Australia – market and standing offers, (electricity, SAPN Supply Area)



Note: Bill outcomes are based on a representative customer for South Australia of 5000 kWh. The representative customer consumption assumptions vary by jurisdictions and thus are not directly comparable.

Figure 11.6 Bill outcome versus effective discount (SAPN supply area)



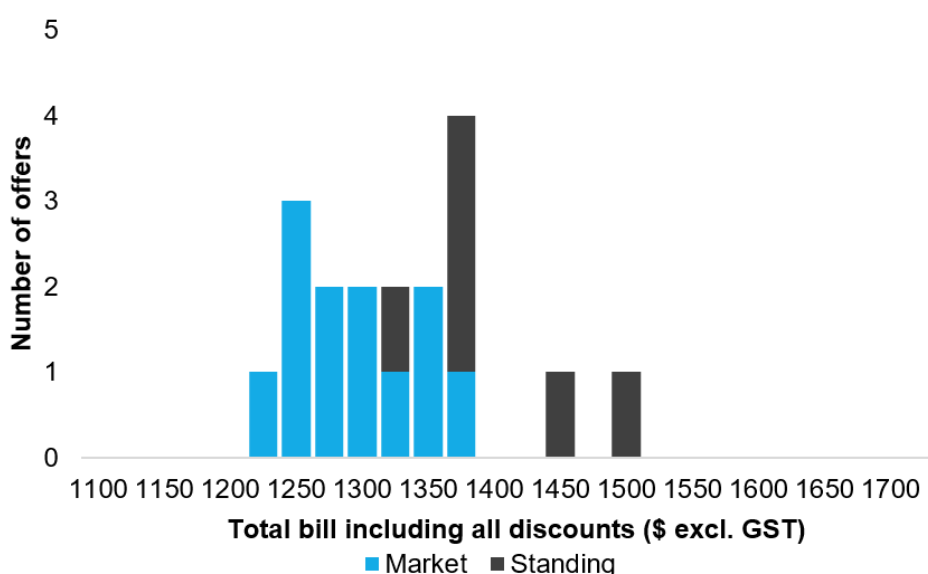
11.2.4 Australian Capital Territory

For the Australian Capital Territory, we assumed that a representative customer has annual consumption of 7312 kWh. Figure 11.7 shows the range of bill outcomes for such a customer in the ActewAGL supply area, and indicates the number of market offers (in red) and standing offers (in green) that would yield each outcome.

At the time of our analysis, there were 12 market offers and 6 standing offers available in the Australian Capital Territory. The six standing offers¹²¹ yielded an average bill of \$1415, while the market offers yielded an average bill of \$1306. Therefore, representative customer could achieve a discount of 7.7 per cent by moving from a standing offer to a market offer.

Of these offers, only two were provided by second tier retailers, six were provided by ActewAGL (the incumbent retailer) and 10 were provided by the big three retailers.

Figure 11.7 Range of bills for a representative residential customer in the Australian Capital Territory – market and standing offers, (electricity, ActewAGL supply area)



Note: Bill outcomes are based on a representative customer for the Australian Capital Territory of 7312 kWh. The representative customer consumption assumptions vary by jurisdictions and thus are not directly comparable.

11.2.5 Victoria

For Victoria, we assumed that a representative customer has annual consumption of 4026 kWh. Figure 11.8 shows the range of bill outcomes for such a customer in CitiPower's supply area, and indicates the number of market offers (in red) and standing offers (in green) that would yield each outcome.

We note the following:

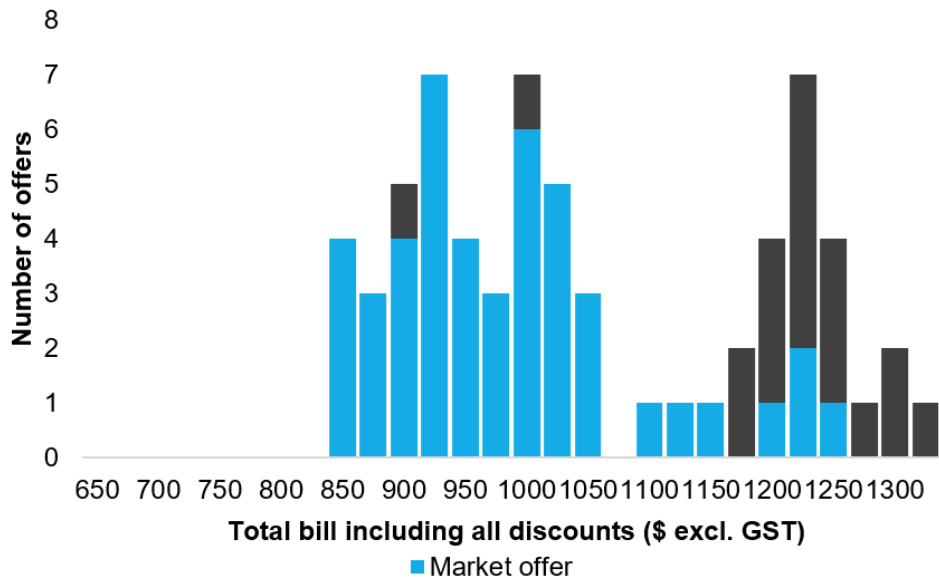
- The median annual bill across all standing offers is \$1240, with the vast majority of market offers providing a discount against this bill.

¹²¹ In December 2015, 76 per cent of Australian Capital Territory customers were on standing offers.

- Market offers yield substantial discounts of up to \$383 off the median standing offer bill of \$1240.

The representative customer can achieve a discount of up to 30.9 per cent by moving from a standing¹²² offer to a market offer. Similar results can be observed in every supply area in Victoria. The difference between standing and market offer bills in Victoria is the most pronounced of any jurisdiction.

Figure 11.8 Range of bills for representative retailer customer in Victoria – market and standing offers (electricity, CitiPower Supply Area)



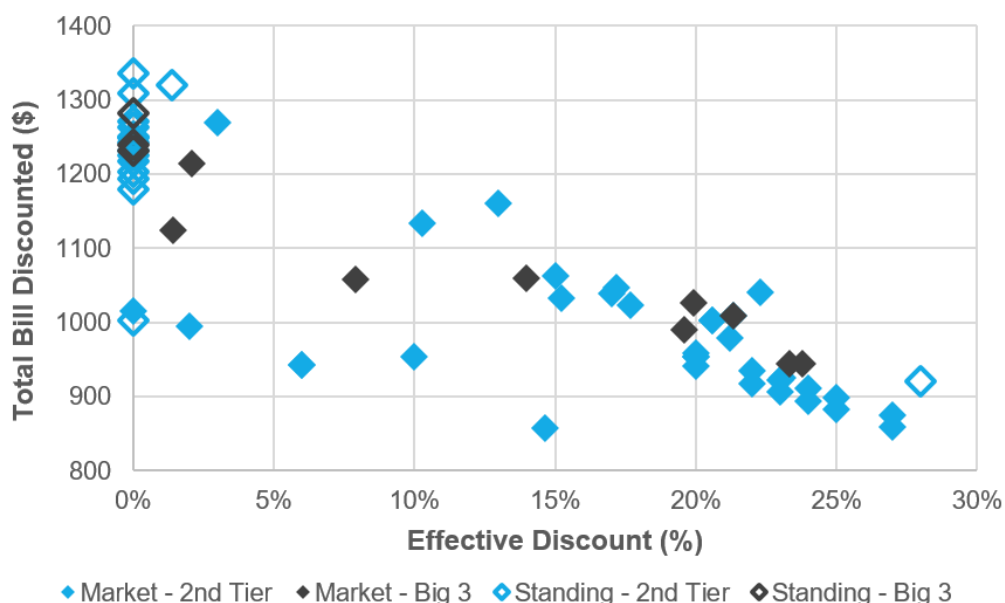
Note: Bill outcomes are based on a representative customer for Victoria of 4026 kWh. The representative customer consumption assumptions vary by jurisdictions and thus are not directly comparable.

Figure 11.9 plots the bill outcome (including discounts) against the effective discount for each offer available in the CitiPower supply area. Each point represents a single offer, and its colour distinguished whether it is a standing or market offer and whether it is from a big three or second tier retailer.

The figure suggests that greater discounts are associated with lower bills. This relationship is more prominent in Victoria than in any other jurisdiction, and is a consequence of the large discounts that are characteristic in Victoria. However, there are several outliers – some offers with effective discounts of 15 per cent yield lower annual bills than offers with effective discounts of 25 per cent.

¹²² As of December 2015, 10 per cent of Victorian customer were on standing offers.

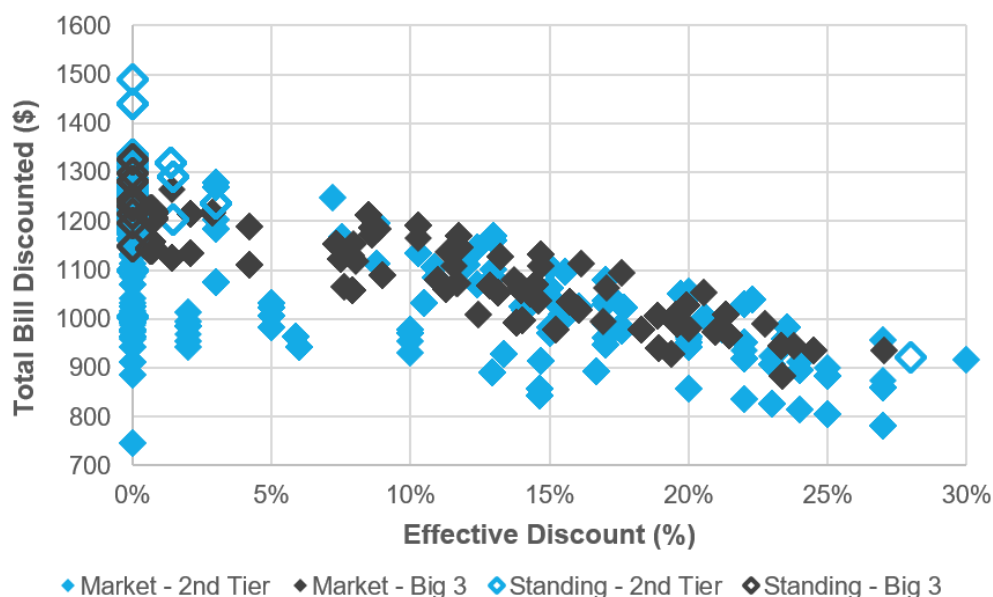
Figure 11.9 Bill outcome versus effective discount for a representative residential customer in Victoria (CitiPower supply area)



In contrast to the ‘snapshot’ shown in Figure 11.8, Figure 11.10 plots the bill outcome against the effective discount for offers available on a monthly basis from September 2013 to October 2015. Each point in the figure represents a single offer, available in a given month, in the CitiPower network.

Over the observation period, discounts have increased and so, in general, market offers located toward the right of the figure are more recent. This analysis emphasises the relationship between higher effective discounts and lower bills, reaffirming the finding from the snapshot analysis.

Figure 11.10 Bill outcome versus effective discount – monthly offers available to a representative residential customer in Victoria from September 2013 to October 2015 (CitiPower supply area)



Appendix C sets out similar analyses for retail offers in the Jemena, Powercor, Ausnet, and United Energy supply areas.

11.3 Growing gap between standing and market offers in electricity markets

The above analysis of bill outcomes and effective discounts indicates there is a growing separation between the annual bills for customers on standing and those on market offers (including discounts). The separation can be perceived in two ways, that is, over time there are:

- progressively greater discounts available for customers who take advantage of market offers; or
- greater costs associated with not taking advantage of market offers.

Market offers provide considerable discounts compared to standing offers. Most notably, in Victoria the difference between standing offers and market offers can be as much as 30 per cent.

In isolation, the gap between standing and market offers is not necessarily a problem. However, there are several potential causes for concern:

- First, although the proportion of customers on standing offers is falling, a substantial number remain on standing offers, and these customers may not be aware they are paying higher bills than necessary.
- Second, the discounts included in many market offers are conditional on pay-on-time or direct debit discounts. If customers on these offers make a late payment, they forfeit the discount, and so pay a bill equivalent to the standing offer price.
- Third, the benefits included in most market offers expire after one or two years, so there may be a significant number of customers who are on a market offer, but who no longer received the benefits initially attached to it. While switching rates are high across South East Queensland, New South Wales, Victoria and South Australia at 15-25 per cent, the 2016 customer survey suggests around 50 per cent of customers have not switched in the last five years (see Chapter 7). Customers that have not switched in more than a few years may be on prices that are closer to standing offer levels.

In our view, these are significant concerns that can be monitored through the annual retail competition review. In addition, steps can be taken at the jurisdictional level to promote customer engagement so that more customers take advantage of the growing benefits available to them in the retail energy markets. The Commission reaffirms its advice to customers that they shop regularly for an energy offer that suits their needs, and emphasise that the benefits of doing so continue to increase.

11.4 Bill outcomes and discounts in gas markets

To analyse bill outcomes and discounts available in gas retail markets, we used an approach similar to the one we used in electricity retail markets with one important difference: for gas markets we used a single representative residential customer usage

assumption¹²³ for all jurisdictions where customers have an effective choice of retailer. Notwithstanding this difference, our analysis of gas retail market offers is intended to be as similar to our analysis of electricity retail market offers as possible. The sections below outline our findings on bill outcomes and discounts in each jurisdiction. Box 11.2 provides more detail on our data sources and approach for this analysis.

Box 11.2 Approach to calculating gas bill outcomes and discounts

To assess gas bill outcomes and discounts, we collected information on all retail offers available to a representative residential customer in each NEM jurisdiction from the following two sources:

- The database underpinning the Energy Made Easy website, which contains current and historical offers for all NEM jurisdictions except Victoria.
- The database underpinning the Victoria Energy Compare website, which contains offers for Victoria.

We collected all flat rate offers from each of these databases. For all jurisdictions except Victoria, the data set consisted of a single snapshot of all published offers available at 23-28 February 2016. For Victoria, we used a single snapshot of all offers available from the Victoria Energy Compare Website as at 9 May 2016.

Once we collected information on all offers, we calculated the total annual bill under each offer applying the same steps as for electricity market offers, that is, we calculated the undiscounted bill and then adjusted this bill to reflect all conditional and unconditional discounts.

11.4.1 South East Queensland

Figure 11.11 shows the range of bill outcomes for a representative residential gas customer in the AGN Brisbane and Riverview supply area, and indicates the number of market offers (in red) and standing offers (in green) that would yield each outcome.

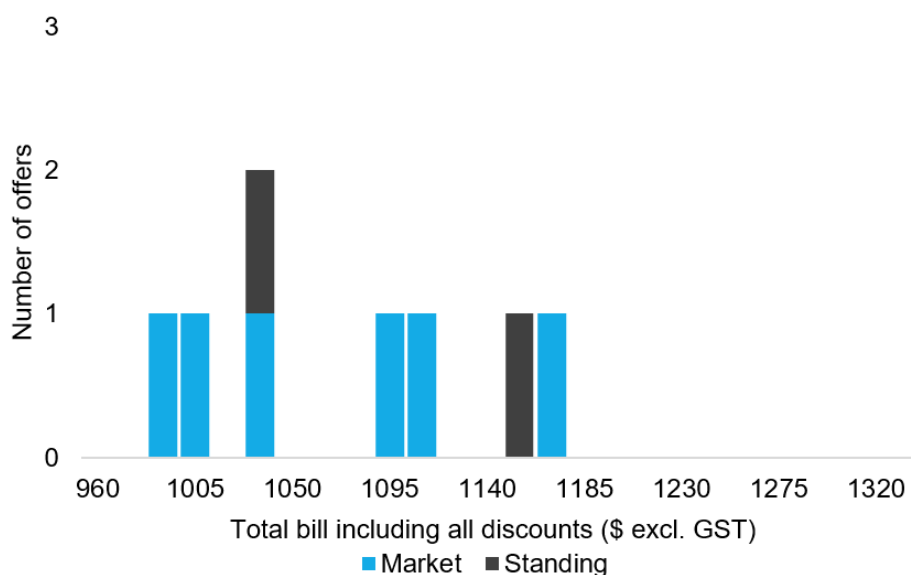
We note the following:

- the retail gas price in South East Queensland for standing offers in the Brisbane and Riverview supply area yield an average annual bill of \$1107; and
- market offers can yield discounts of up to 10 per cent off the median bill for regulated offers.

This suggests that a representative customer can achieve a small discount by moving from a standing offer to a market offer.

¹²³ The representative customer has an assumed level of consumption of 24 GJ per annum – a value that has previously been adopted by the AER for analysis of bills in its State of the Energy Market Report.

Figure 11.11 Range of bills for a representative residential customer in South East Queensland – market and standing offers (gas, AGN Brisbane and Riverview supply area)



Note: Bill outcomes are based on a representative customer using 24 GJ per year.

There are four separate supply areas within Queensland, of which Brisbane and Riverview is but one. Each of these supply areas has different characteristics, and so different supply costs.

11.4.2 New South Wales

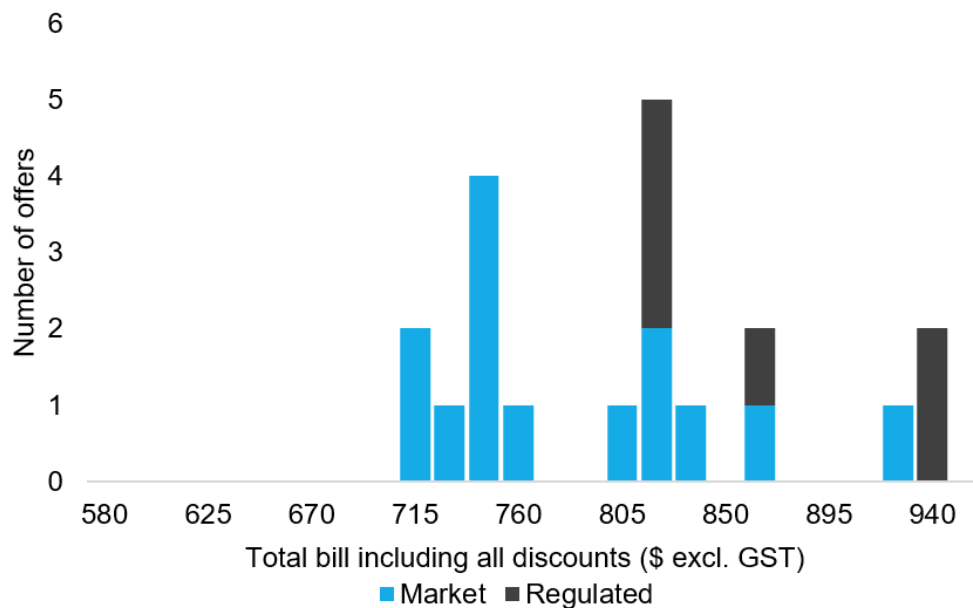
Figure 11.12 shows the range of bill outcomes for a representative gas customer in the Jemena Coastal supply area of New South Wales, and indicates the number of market offers (in red) and regulated offers (in blue) that would yield each outcome.

We note that:

- the retail gas price in New South Wales is regulated, and regulated offers in the Jemena Coastal supply area yield an average annual bill of \$879; and
- market offers typically yield discounts of around 11 per cent off the median regulated offer, although the discounts vary greatly by retailer.

This suggests that a representative customer can achieve a moderate discount by moving from a regulated offer to a market offer.

Figure 11.12 Range of bills for representative residential customer in NSW – Market and standing offers, (gas, Jemena Coastal supply area)



Note: Bill outcomes are based on a representative customer using 24 GJ per year.

11.4.3 South Australia

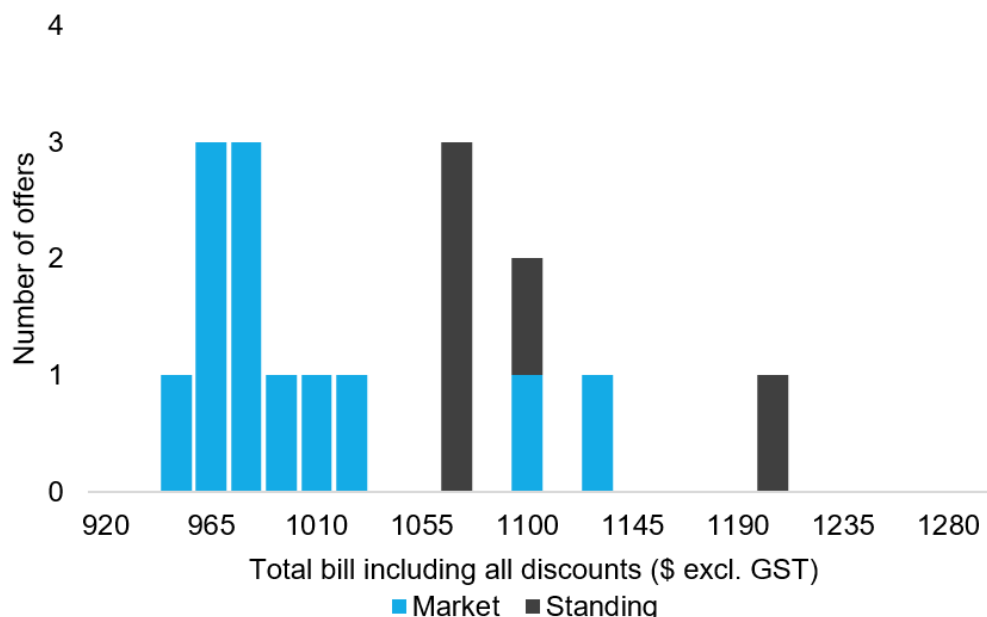
Figure 11.13 shows the range of bill outcomes for a representative customer in the AGN Metro supply area of South Australia, and indicates the number of market offers (in red) and standing offers (in blue) that would yield each outcome.

We note the following:

- standing offers in the AGN Metro supply area yield an average annual bill of \$1113; and
- market offers typically yield discounts of around nine per cent compared to standing offers.

A representative customer can therefore achieve a moderate discount by moving from a standing offer to a market offer.

Figure 11.13 Range of bills for representative residential customer in South Australia – market and standing offers (gas, AGN Metro Supply Area)



Note: Bill outcomes are based on a representative customer using 24 GJ per year.

11.4.4 Australian Capital Territory

There are only three retail gas offers available in the Australian Capital Territory (as set out in Table 11.7): two standing offers and one market offer. The average annual bill for a representative gas customer for the two standing offers is \$914, in contrast to a bill of \$813 for the market offer. A customer on the standing offer can therefore achieve a bill reduction of \$102 (or 11 per cent) by switching from the standing offer to the market offer.

Table 11.1 Bills for a representative residential customer in the Australian Capital Territory - market and standing offers, (gas, ActewAGL Supply Area)

	Number of offers	Number of retailers	Average Discounted Bill
Standing Offers	2	2	\$914
Market Offers	1	1	\$813

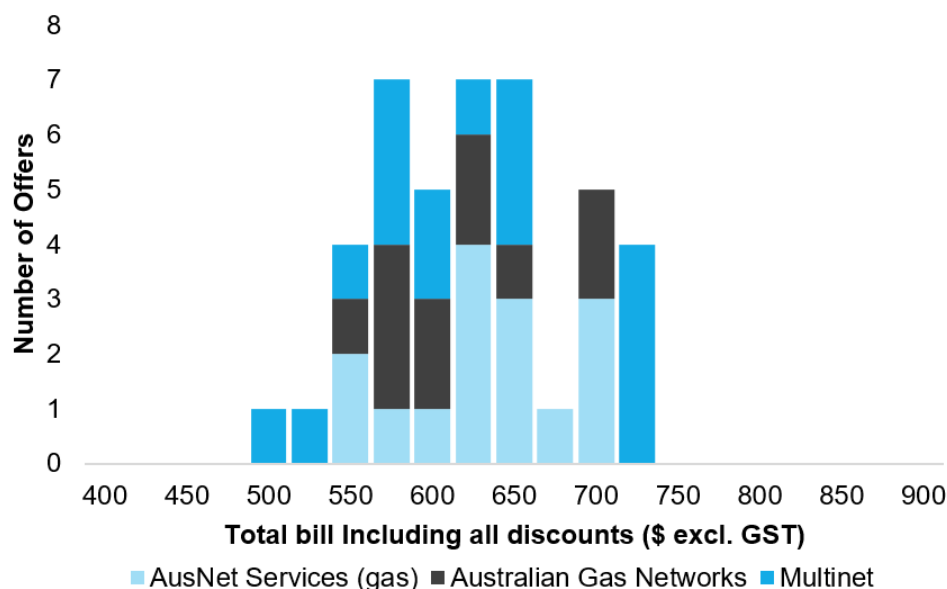
11.4.5 Victoria

For Victoria, we analysed the bill outcomes and discounts for a representative residential gas customer located in the Melbourne metropolitan area. This area spans three supply areas: Multinet Metropolitan, Ausnet Central, and AGN Central.

Figure 11.14 shows the range of bills for a representative customer and indicates the number of offers that would yield each outcome. The figure distinguishes between each of three supply areas that constitute the Melbourne metropolitan area and shows that

the range of bills is comparable in all three supply areas. Therefore, the remaining analysis in this section applies to all three supply areas.

Figure 11.14 Range of bills for representative residential customer in Victoria – (gas, By Melbourne metropolitan supply area)



Note: Bill outcomes are based on a representative customer using 24 GJ per year.

Figure 11.15 shows the range of bill outcomes for a representative customer in the Melbourne metropolitan area,¹²⁴ and indicates the number of market offers (in red) and standing offers (in green) that would yield each outcome.

This analysis yields a surprising result in that there are two distinct groups of standing offers, one from \$575 to \$625 and one from \$700 to \$750. To explain these two separate groups, we have examined the class of retailer making each offer. Figure 11.16 shows the same range of bills, but with a distinction between offers from big three and second tier retailers. The higher standing offers, and the surrounding market offers are from big three retailers. In contrast, the lower standing offers and attendant market offers are all from second tier retailers.

¹²⁴ An individual customer will only be able to receive offers that apply to their supply area.

Figure 11.15 Range of bills for representative retailer customer in Victoria – market and standing offers, (gas, All Melbourne metropolitan supply areas)

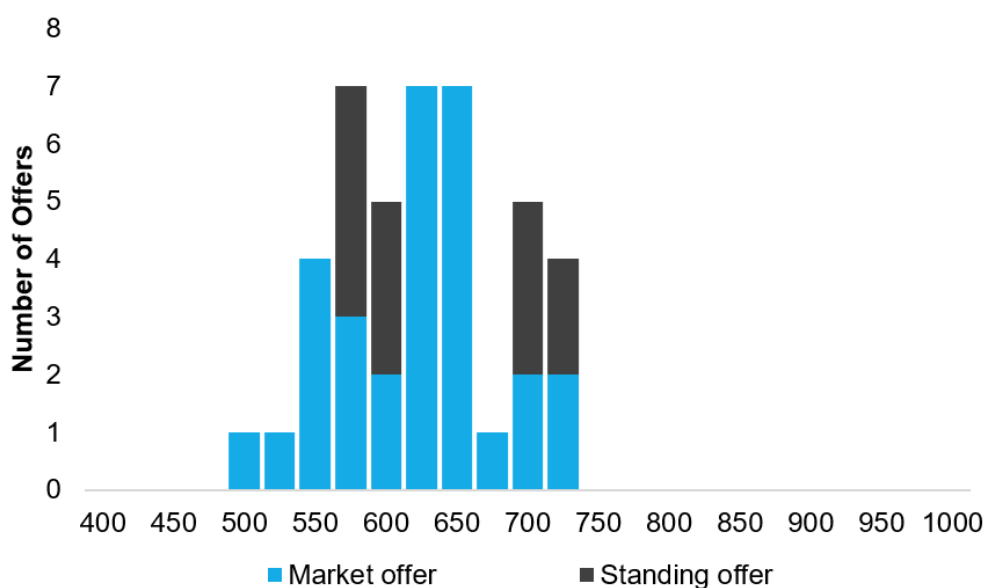
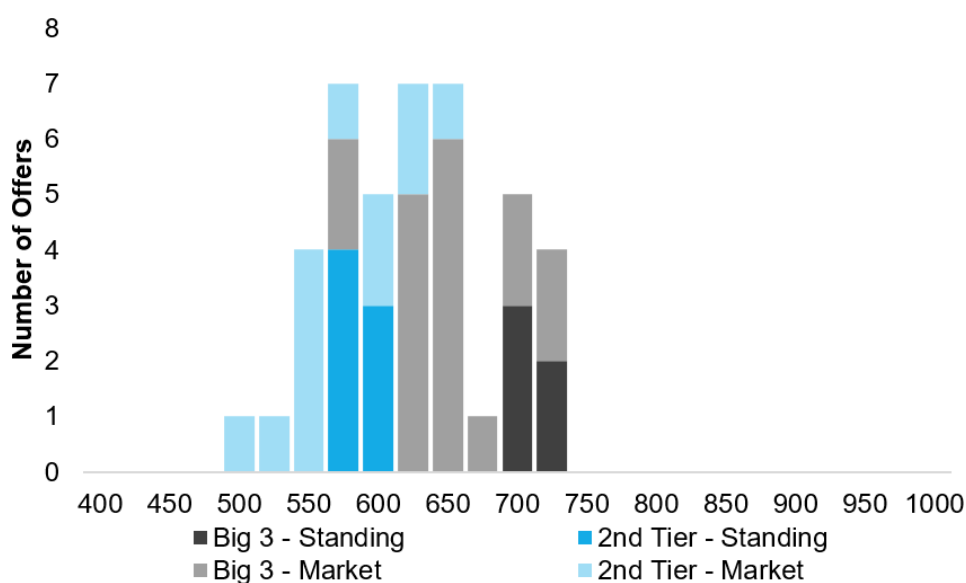


Figure 11.16 Range of bills for representative retailer customer in Melbourne (All Metropolitan Supply Areas) – Big three versus Second Tier Retailers



Note: Bill outcomes are based on a representative customer using 24 GJ per year.

This analysis suggests that a representative gas customer in Victoria can:

- achieve substantial discounts of up to 15 per cent by switching from a standing to a market offer; and
- customers currently being supplied by big three retailers may benefit from switching to a second tier retailer.

For example, a representative customer on a big three standing offer of up to \$732 might potentially reduce their annual bill to \$500 by switching to a second tier market offer – a discount of 31.7 per cent.

11.4.6 Tasmania

There are only two retail gas offers available in Tasmania (as set out in Table 11.2). The average bill for a representative customer for the two offers is \$880. Some customers could benefit by switching to the offer with a lower excepted bill.

Table 11.2 Bills for a representative residential gas customer in Tasmania

	Daily Charge (c/day exc. GST)	Usage Charge (c/MJ exc. GST)	Bill (\$ per annum exc. GST)
Offer (Retailer 1)	42	2.84	\$834
Offer (Retailer 2)	42.6273	3.21	\$926

11.5 Publicly available information on retail margins

As discussed above, although retail margins can provide insight into the competitiveness of energy markets, these margins cannot be easily observed and measured. They are also difficult to estimate with certainty and all estimates depend heavily on the assumptions used. For these reasons, we have not conducted a detailed assessment of the levels of retail margins in jurisdictions. However as, set out in the approach paper for this review, publicly available information on the margins earned by energy retailers was considered.

A range of recently published studies were considered that examined retail margins in the NEM. The findings of these studies on retail margins and the assumptions that underpin these findings were reviewed. The sections below:

- explain how energy retail margins are typically estimated;
- discuss the findings of the studies we examined; and
- discuss the conclusions and implications from these findings.

The AEMC has considered retail margins through our price trends reports and competition reviews over a number of years. We have been cautious in drawing conclusions on this topic due to the lack of data and uncertainty of estimates. Others face similar challenges in analysing and discussing retail margins. Outlined below are some of the limitations in our own and others analysis in this area.

11.5.1 How energy retail margins are estimated

Energy retailers' outcomes are generally measured in terms of the 'gross' and 'net' margins they earn. An estimated gross retailer margin is the difference between the retailer's estimated revenue and the estimated wholesale costs of supply. It is usually estimated by subtracting estimates of wholesale energy costs, environmental policy

costs and network costs from a nominated tariff. For example, this tariff could be a standing offer, an average market offer, or the lowest available offer at a point in time.

An estimated retailer margin is the difference between the retailer's estimated revenue and the estimated total wholesale and retail costs of supply. It is estimated in the same way as the gross margin except that the retailer's operational costs are also subtracted from the nominated tariff. These operational costs include:

- customer acquisition and retention costs (i.e. marketing campaigns, discounts and other promotions);
- customer service costs (i.e. call centres, billing and collecting revenue);
- information technology (IT) system costs;
- finance costs, including working capital requirements; and
- regulation and compliance costs (i.e. paying licence fees and complying with other government obligations, such as customer protection schemes).

Both gross and net margins are generally presented as a percentage of a retailer's costs. For instance, a 10 per cent gross retailer margin implies that a retailer is earning revenue that is 10 per cent greater than its total wholesale costs of supply.

However, estimating these margins is a complex task, as it first requires the wholesale energy costs to be estimated. This is usually done by estimating the long run marginal cost of new generation, or by using exchange traded futures as a proxy for market prices. Both methods assume the same wholesale costs for different types of retailers. However, in practice these costs vary depending on the retailer's size, types of customers and business strategy, including the level of vertical integration. Changing market conditions, such as falling demand and uncertainty over carbon emissions reduction policies, can also make it difficult to accurately estimate a retailer's energy costs.

Estimating net retailer margins also requires the operational costs to be estimated. These costs also vary depending on the size and business strategy of the retailer, including whether it outsources or retains key functions in-house. They also vary depending on the type of retailer, the credit worthiness of its customer base, and the jurisdictions it operates in.

For a given retail tariff at a point in time, over-estimating or under-estimating wholesale energy costs or retailers' operational costs will lead to errors when estimating retailer margins. Therefore, it is important to carefully test the results to the extent that this is feasible.

11.5.2 Findings of recent studies on retail margins

Several recent studies have analysed and commented on retail margins in different NEM jurisdictions. These include studies by St Vincent de Paul, Carbon and Energy Markets, Simhauser and Whish-Wilson, as well as the AEMC's review of price trends.

AEMC Residential Electricity Price Trends Review – December 2015

The 2015 Residential Electricity Price Trends review identified that the competitive market component (measured in cents per kWh) of retail bills in Victoria and New South Wales is higher than in other jurisdictions.¹²⁵

In considering the results of the price trends review, it is important to note that the methodology adopted for that review is neither specifically designed to estimate whether retail margins are consistent with effective competition, nor should it be used to for that purpose.

The price trends report assesses the retail component through a residual method and does not separately report it. It is derived as the residual when all of the non-retail cost components are subtracted from the representative market or standing offer price in the base year. Importantly, this approach means that any errors in the levels of the other supply chain cost components will affect the retail component.

Therefore, the competitive market component consists of the wholesale purchase cost of electricity and the costs associated with retailing electricity to residential consumers. This methodology is adopted because separately reporting retail components developed using the residual methodology would be potentially misleading given their inherent error and uncertainty.

The price trends approach also estimates the competitive market component for a representative customer – a metric that is heavily susceptible to assumptions, such as the customer's usage, their location, and the offer that they receive.

Considerable steps were taken to improve the rigour that we apply to develop our representative customer profile in the last three price trends reports. Notwithstanding, any comparison of retail margins based on the price trends results implicitly presuppose that an estimated retail margin for an average customer is a valid indicator of the margin for an existing or new entrant retailer. Such an assumption may often fail to hold, and so it is not appropriate to use the price trends approach to make statements about the effectiveness of competition.

St Vincent de Paul – September 2015

In September 2015, St Vincent de Paul published a study examining retail tariffs and retail price outcomes across the NEM. The study looked at, among other things, the different components that make up electricity bills. This included the retail component and a major finding of the report was that:

“the retail component of bills is too high in deregulated, competitive electricity markets and we conclude that this is either because the cost of competition is high or because competition is ineffective¹²⁶”

An analysis of the retail component margins is influenced by assumptions about the profile of the representative customer. In this study all estimates assumed uniform

¹²⁵ AEMC, *2015 Residential Electricity Price Trends*, final report, AEMC, 4 December 2015, Sydney, <http://www.aemc.gov.au/Markets-Reviews-Advice/2015-Residential-Electricity-Price-Trends>.

¹²⁶ St Vincent de Paul 2015, *The NEM still winging it - observations from Vinnies' tariff tracking project*, final report, September 2015, p.5.

consumption of 6,000 kWh per annum across all jurisdictions. Also St Vincent de Paul finds the size of the retail component is lower when market offers are considered rather than standing offers.

Carbon and Energy Markets – June 2015

In June 2015, Carbon and Energy Markets (CME) released a report commissioned by the Brotherhood of St Laurence¹²⁷ that investigated movements in Victorian retail margins over time. The report aimed to derive and track retail margins over time, and found that the retail component of Victorian electricity bills (ie, the gross retail margin) was different to that in other states, and has risen persistently over the last eight years.

There are a number of issues with CME's analysis:

- CME used an annual consumption level of 5585 kWh for a representative residential customer in Victoria,¹²⁸ which it derived from a 2012 ABS survey. This level of consumption appears high for Victoria, and may not take into account jurisdictional differences or the declines in electricity demand that have occurred since the 2012 ABS survey.
- In calculating its 'non-network charges', CME treated smart meter costs as a non-network charge. Given that smart meter costs are substantial (up to \$226 per annum depending on supply area), this influences the results shown in their Figure 1. However they later deduct these before calculating gross margins.
- CME derived its estimates of the retail margin based on prices from a 2012 ABS survey. They adjusted the 2012 values for other years based on changes in the ABS's Melbourne household energy price. This is not likely to accurately account for the changes in prices over time. Further, given the finding that market offers in Victoria can provide discounts of up to 30.9 per cent on a customer's bill versus a standing offer (see section 11.2.5), an analysis that separates market and standing offers would yield substantially different results.

Simshauser and Whish-Wilson – June 2015

In June 2015, AGL economists, Simshauser and Whish-Wilson, published a paper that highlighted the role of price dispersion in retail energy markets.¹²⁹ The paper found that standing offers in Victoria were 10 per cent above industry average costs while marginal offers were at break-even prices. They also raised concern that vulnerable customers were on high priced offers.

The paper focused on the fact that there are customers who, for a variety of reasons, may find it more difficult to switch away from a standing offer. These customers may, in reality, be highly price sensitive and be willing to invest the time and effort into searching for a new supply if they were able – but that may not be possible. Nevertheless, they are ultimately treated the same way as customers who place a high

¹²⁷ CME, *A critique of the Victorian retail electricity market*, A report for the Brotherhood of St Laurence, June 2015.

¹²⁸ Ibid, p13.

¹²⁹ Simshauser & Whish-Wilson, *Reforming reform: differential pricing and price dispersion in retail electricity markets*, AGL Applied Economic and Policy Research, Working Paper No.49, June 2015.

premium on their time. Simshauser and Whish-Wilson describe this as ‘inter-consumer misallocation’.

Arguably this outcome is neither efficient nor equitable. It is not necessarily efficient, since the lower prices being offered to those customers on market offers – who have shopped around – are being funded, at least in part, by vulnerable customers that may be equally (or more) likely to be on those offers if they were able to switch. It is on the basis of this analysis that AGL Energy took independent steps to shift its ‘vulnerable customers’ off standing offer tariffs onto less expensive plans. This included a trial to provide a 10 per cent discount on energy charges for standing offer customers eligible for state government energy concessions.

11.5.3 Implications and conclusions on retail margins

The evidence presented in these studies does not tend to suggest that retail margins in Victoria, or indeed any other jurisdiction with deregulated prices, are inexplicably higher or inconsistent with effective competition. To the contrary, a persistent theme of the studies is that the market offers that retailers are providing in deregulated jurisdictions are enabling customers to reduce their bills. In Victoria customers can receive discounts of over 30 per cent on their bills by switching to a market offer (see section 11.2.5).

In response to the studies, the following observations can be made:

- Some studies of retail margins have drawn inferences as to whether competition is effective without considering the differences between standing offer and market offer prices. Such an analysis does not recognise that a retailer’s margin varies across customers and over time.
- Some studies have not acknowledged the uncertainty that is inherent in any estimate of retail margins. In particular, any estimate of retail margins relies upon numerous assumptions, such as the usage of the representative customer, the type of retail price that they face, and the wholesale energy cost of supplying them.
- The ‘representative customer’ approach is predicated on an assumption that such a customer can represent all of the retailer’s customers. In the absence of comprehensive information about which customers are on which contracts, it is very difficult to define what a truly ‘representative customer’ looks like.

More generally, it is important to note that estimates of the retail margins must be examined with caution – they are inherently uncertain, and depend greatly upon the assumptions that have underpinned the study.

A 2016 Review Terms of Reference

09 JAN 2014



THE HON IAN MACFARLANE MP

MINISTER FOR INDUSTRY

PO BOX 6022
PARLIAMENT HOUSE
CANBERRA ACT 2600

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

RECEIVED 15 JAN 2014

Dear Mr Pierce *Sohn*

As you are aware, Australian governments have committed under the Australian Energy Market Agreement (AEMA) to remove retail energy price regulation where effective competition can be demonstrated. The Australian Energy Market Commission (AEMC) is tasked under the AEMA with responsibility for assessing the state of retail competition across jurisdictions within the National Electricity Market (NEM).

In December 2012, the Standing Council on Energy and Resources (SCER) and the Council of Australian Governments agreed to revise the AEMC's existing approach to competition reviews. As such, the attached revised Terms of Reference were developed by SCER to underpin a revised focus of the reviews on the state of competition across jurisdictions within the NEM with scope for more detailed jurisdiction-specific advice, if agreed, by the AEMC.

To support this approach the AEMA was amended in December 2013 to remove prescriptive elements associated with the existing approach which are focused on individual jurisdictional reviews.

This revised approach to competition reviews is to be applied annually from 2014 onwards. To guide the AEMC in this approach in future competition reviews, please find attached the Terms of Reference that supersede the Statement of Approach for the AEMC's reviews. The Terms of Reference will remain in place for the AEMC's reporting on an ongoing basis from 2014 until such time as directed otherwise by SCER.

Yours sincerely,

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Ian Macfarlane

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TERMS OF REFERENCE

AUSTRALIAN ENERGY MARKET COMMISSION (AEMC) REPORTING ON THE STATE OF RETAIL ENERGY MARKET COMPETITION ACROSS THE NATIONAL ELECTRICITY MARKET

BACKGROUND

Australian governments have committed under the Australian Energy Market Agreement (AEMA) to remove retail energy price regulation where effective competition can be demonstrated. The Australian Energy Market Commission (AEMC) is tasked under the AEMA with responsibility for assessing the state of retail competition across jurisdictions within the National Electricity Market (NEM).

From 2007 to 2013 the AEMC, as requested by the Ministerial Council on Energy (MCE), the predecessor to the Standing Council on Energy and Resources (SCER), conducted reviews of retail energy market competition in individual jurisdictions. These reviews were guided by prescription contained within the AEMA and a Statement of Approach approved by the MCE. The AEMC reviewed Victoria over 2007 and 2008, South Australia in 2008, the Australian Capital Territory over 2010 and 2011, and New South Wales over 2012 and 2013. During this period, Victoria and South Australia deregulated retail energy prices from January 2009 and February 2013 respectively and the Australian Capital Territory did not deregulate retail pricing as effective competition could not be demonstrated.

In December 2012, SCER and the Council of Australian Governments agreed to revise the AEMC's existing approach to competition reviews. Accordingly, these Terms of Reference have been developed by SCER to underpin a revised focus on the state of competition across jurisdictions within the NEM, with scope for further more detailed jurisdiction-specific advice on pricing reform by the AEMC, as required.

To support this approach, the AEMA was amended in December 2013 to remove those prescriptive parts of Section 14 and Annexure 3 which were associated with previous methodologies. Also, these Terms of Reference supersede the previous Statement of Approach.

OUTLINE

These Terms of Reference are intended to guide the AEMC's assessment of the state of retail energy market competition across and within jurisdictions in the NEM.

The task entails annual reporting by the AEMC on the state of competition in retail electricity and gas markets across NEM jurisdictions, with scope for more detailed jurisdiction-specific advice on pricing reform as required.

SCER requests this reporting by the AEMC pursuant to section 41 of the National Electricity Law and section 79 of the National Gas Law.

Terms of Reference – AEMC reviews of retail energy market competition

The AEMC's reporting is to be carried out in accordance with the assessment framework and processes outlined below.

SCOPE

The AEMC is required to publish an annual report assessing the current status (and possible future development) of retail competition in electricity and gas markets across all the NEM jurisdictions. This assessment is to be based upon objective measures and analysis. The AEMC's reports should also comment on NEM-wide issues that are affecting retail competition. More details on the assessment framework are provided below.

The AEMC's reporting will focus on the small customer end of retail electricity and gas markets as defined by the relevant jurisdictional consumption threshold(s) or any other means the AEMC deems appropriate.

The competition monitoring that occurs as part of the AEMC's annual NEM-wide reviews will principally cover energy markets in jurisdictions that are subject to retail price regulation, but also markets in jurisdictions where prices have been deregulated - mainly for comparison purposes.

As part of this annual reporting, the AEMC is required to advise Energy Ministers whether there are any jurisdictions to which it could usefully provide further advice on how they may transition to price deregulation. SCER would use this advice to inform their potential further directions to the AEMC on the provision of such advice.

ASSESSMENT FRAMEWORK

The AEMC should have regard to the following criteria where practicable, and subject to data availability and resourcing constraints, in assessing the effectiveness of retail competition in energy markets across and within NEM jurisdictions (i.e. they apply for both NEM-wide and any jurisdiction-specific reports).

CRITERIA

1. Independent rivalry within the market.
2. The ability of suppliers to enter the market.
3. The exercise of market choice by customers.
4. Differentiated products and services.
5. Price and profit margins.
6. Customer switching behaviour.

CONSULTATION

The AEMC must consult with jurisdictions during the preparation of its report including on methodology, data collection processes and timelines, with a view to maintaining a consistent approach on assessing competition across jurisdictions.

The AEMC must release its draft report to jurisdictions for their review and comment.

Terms of Reference – AEMC reviews of retail energy market competition

The AEMC may also consider where practicable consultation with key stakeholders in the preparation of its report including energy retailers, consumer groups, energy ombudsman and pricing regulators.

TIMING

The AEMC must publicly release its NEM-wide report by 30 June each year and provide embargoed copies of the report to Energy Ministers (through SCER) at least ten days before publication.

The second half of each year is intended to allow the AEMC sufficient time to provide individual jurisdictions with supplementary advice where the need is identified by the AEMC and agreed by SCER. This advice would also be made public with timing and other parameters to be agreed by SCER as part of its request to the AEMC.

These Terms of Reference will remain in place for the AEMC's reporting on an ongoing basis from 2014 until such time as directed otherwise by SCER.

7 JANUARY 2014

B Summary of Stakeholder Submissions to the AEMC's Approach Paper

Approach and market indicators

Stakeholder(s)	Issue	AEMC Response
Origin Energy, p2; AGL, p2; EWO NSW, p1; CALC, p1	Supports the Commission's approach to assessing competition in the retail electricity market.	Noted.
CALC, p1; ECA, p4, CALC, p2	Considers AEMC information gathering powers should be extended. CALC recommends extension for the purposes of gathering relevant data needed to monitor market outcomes, and ECA recommends extension to assist in removing duplication regarding information requests to retailers.	The AEMC requests information from retailers and is provided with information from other agencies by agreement. The scope of the AEMC's information gathering power is a matter of legislation and therefore for governments.
ECA, p7	Suggests that the AEMC should consider determining how to use multiple dimensions being assessed to derive a single Energy Retail Market Competitiveness Indicator.	The AEMC does not consider using multiple dimensions to derive a single Energy Retail Market Competitiveness Indicator appropriate. The results for the single indicator would be driven by the weights chosen for different factors and it may not provide clear or useful information on changes in markets.
CALC, p2	AEMC should investigate with all retailers the extent to which consumers that are on pay on time discounts have not received the benefits of those discounts.	Noted. This level of information has not been provided by retailers, however our 2016 customer and vulnerable research did ask survey participants, how many times they have missed a bill payment. This provides some insights into those customers that may not be accessing the benefits of these discounts and therefore having potentially higher bills. Refer to Chapter 6 and Chapter 11.
ESAA, p1	Acknowledges that no one indicator is determinative of the effectiveness of competition and dismisses	The AEMC considered publicly available information on retail margin in its assessment. Refer

Stakeholder(s)	Issue	AEMC Response
	the need to conduct a detailed investigation of net or gross retail margins as part of any competition assessment.	to section 11.3.
Origin, p7	For the purpose of its Competition Reviews, the Commission should broaden its definition of competition to capture the impact of solar PV and other new or emerging technologies that substitute or displace retail energy supply. Such reviews could also consider the continued appropriateness of the existing regulatory framework in light of market evolution and product innovation and increased substitution and customer choice.	The AEMC has not broadened its market definition. However, the AEMC has, as part of this year's review, looked at new emerging technology and services and how they impact customer experiences and outcomes. Refer to Chapter 5 for more detail.
ESAA, p1	To the extent alternative sellers aren't explicitly captured by the AEMC's market definition, it is important that detailed consideration is given to the potential impact of new products and services on competition in retail energy markets, as flagged in the Approach Paper.	The AEMC has, as part of this year's review looked at new and emerging technologies and services. Refer to Chapter 5 for details.
CALC, p4, EWO NSW, p3	Considers that exempt energy sellers should be included - their practices, products and how consumers are interacting with these. Also to determine if exempt seller customers are accessing or able to access the benefits of a competitive market.	While we did not include exempt energy sellers within our market definition for this year's review, we have considered the experiences and perceptions of customers in relation to new products and services. Refer to Chapter 5.
Energy Australia, p3	Welcomes discussions of switching in other consumer service sectors in the 2015 Competition Review. Considers this analysis could be extended to consider what share of income is spent on energy when compared with other services.	Noted. For this year's report we did not include share of income spent on energy as compared to other services.

Stakeholder(s)	Issue	AEMC Response
ECA, p11	Suggests whether the AEMC could review literature to determine whether the Net Promoter Score provides a better customer value measure than satisfaction.	Noted. For this year's review, we engaged Newgate to conduct our customer survey. We discussed this issue with Newgate, but decided a Net Promoter Score measure was not likely to provide significant additional insight.
ActewAGL, p1	Cautions against an overemphasis on measures such as switching between retailers, as this can lead to misguided assessments of the effectiveness of competition. More weight should be given to evidence of positive outcomes for consumers.	This is noted in Chapter 7, which relates to customer activity and switching.
ECA, pp11-12	For determining independent rivalry and market concentration, there are suggestions of different ways eg HHI, top three concentration ratio, product variety.	The AEMC has considered these aspects of independent rivalry. Refer to Chapter 10.

Consumer choice and engagement

Stakeholder(s)	Issue	AEMC Response
CALC, p3-4	AEMC should consider outcomes for those consumers that do not shop around or seek a new contract following lapse of benefits or discounts. Recommends that the AEMC investigate the UK proposal of maximum price levels for default tariffs.	For this year's review, the AEMC has conducted research into the experiences and outcomes of vulnerable customers. This considers some of the reasons why customers may not shop around. Refer to Chapter 6.
AGL pp2-3	While there are customer segments which are less price sensitive than others, AGL supports further investigation into whether the lack of participation is voluntary or not. AGL also acknowledges that a small proportion of customers are unlikely to engage with competitive markets. Further, it is appropriate to ensure that vulnerable customers are not adversely affected.	Refer to Chapter 6 which discusses the findings of our vulnerable customer research.

Barriers to entry, expansion and exit

Stakeholder(s)	Issue	AEMC Response
Origin Energy, p2, p4	<p>Barriers to entry continue to fall in retail energy markets with New South Wales and Queensland taking steps to remove retail price regulation.</p> <p>In New South Wales, Origin observed that the number of active retailers in the market increased during 2014-15, leading to a decrease in market concentration levels, an increase in small retailer market share, and an increase in the number and variety of products and services being offered to customers.</p>	<p>Our retailer survey found that the ease of entry and expansion in retail energy markets was largely consistent with the findings in the 2015 retail competition review. However, the Commission found that competition is indeed effective in relevant energy markets in New South Wales and Queensland and recommends that the relevant Governments proceed with their intentions to deregulate prices in these markets.</p> <p>Our market share findings supported the observations made by Origin Energy. Refer to sections 9.2 and 9.5.</p>
AGL, p3	<p>In electricity, AGL does not consider that there are significant barriers to entering, exiting or expanding generally in the NEM.</p> <p>However, there may be circumstances which have made risk management more important.</p> <p>In South Australia, the high proportion of energy sourced from renewable generation and the closure of thermal power stations has led to difficulties in accessing hedging products in the retail electricity market.</p> <p>In Queensland, the advent of the LNG export industry has led to the reduced supply of gas for domestic consumption purposes, and has led to volatile pool prices for gas.</p> <p>The UTP is another issue in regional Queensland,</p>	<p>Our retailer survey indicated that the ease of entry and expansion in certain states' retail electricity markets remains difficult, and therefore, that there are significant barriers to entry and expansion in certain markets.</p> <p>Our retailer survey supported the identification of the barriers mentioned by AGL in South Australia and Queensland retail energy markets. Refer to sections 9.3.2, 9.3.3 and 9.6.2 of the report.</p>

Stakeholder(s)	Issue	AEMC Response
	leading to retail electricity prices being set at below cost reflective prices and making it financially unviable for second-tier retailers to effectively compete in the retail electricity market.	
Energy Australia, p1	Views factors such as the uncertainty about the level of regulated prices, differences in regulatory obligations for entities competing to provide similar services, and biases in favour of specific technologies as significant barriers to entry and expansion, and as a result, to effective competition.	Our retailer survey found that uncertainty related to price regulation and inconsistencies in regulatory obligations related to concessions, hardship and consumer protections schemes were barriers to entry in the retail electricity market. Refer to section 9.3.2 of the report.
Origin Energy, p4	Considers that the existence of multiple and inconsistent energy efficiency schemes across State jurisdictions acts as an additional cost for new entrants to the market. Where State-based schemes duplicate components or objectives of the Australian Government's Emissions Reduction Fund, these should be wound up and any residual functions that are complementary could be transitioned to a national scheme.	Our retailer survey found that costs associated with environmental and energy efficiency schemes were a barrier in retail electricity markets in several jurisdictions. Refer to sections 9.3.2 and 9.6.2 of the report.
Origin Energy, p4	It would be valuable for the Commission to consider the impact of mandated feed-in-tariffs when assessing barriers to entry and competition in the market.	Our retailer survey found that costs associated with environmental and energy efficiency schemes were an important barrier in retail electricity markets in several jurisdictions, however retailers did not specifically discuss barriers to entry related to feed-in-tariffs. Refer to section 9.3.2 of the report.
Origin Energy, p5	Important that the Commission consider recent regulatory changes in Victoria, when reviewing the nature of competition in this market. Whilst prices remain deregulated, Origin's concern is that other forms of regulation will lead to increased cost of	Our retailer survey found that there were certain regulatory barriers in Victoria. Refer to sections 9.3.2 and 9.6.2 of the report.

Stakeholder(s)	Issue	AEMC Response
	doing business in Victoria, and over time may harm competition by creating unnecessary barriers to entry and higher costs for consumers.	

Retail margins

Stakeholder(s)	Issue	AEMC Response
CALC, p3	Proposes that AEMC should consider retail margins, price shocks and tariff structures.	As part of our assessment of competitive retail prices, we have considered publicly available information on retail margins. Refer to section 11.5
ECA, p12	Considers gross margins should be considered in looking at competitive retail prices.	Refer to discussion in section 11.5.
PIAC, p2	Useful to know whether there is evidence of competition genuinely pushing prices down (in real or nominal terms). Encourages the AEMC to examine unexplained increases in retail costs.	As part of our assessment of competitive retail prices, we have considered prices and offers available and publicly available information on retail margins. Refer to Chapter 11.

New products and services and exempt energy sellers

Stakeholder(s)	Issue	AEMC Response
CALC, p3; ECA p4, EWO NSW, p2	Supports analysis on new products and services and technology, including consumer behaviour with uptake and a customer's expected level of consumer protection.	Noted. The AEMC has undertaken additional customer research relating to understanding the experiences of customers related to new and emerging technologies and energy services. This includes consideration of issues related to customer protections. Refer to Chapter 5.
Energy Australia, p2	Regulators and policy-makers do not have sufficient information about the operation of new retail entities due to the absence of formal reporting obligations and the fact that they are not required to be members of ombudsman services. EA are also not convinced that customer research, the retailer survey and publicly available information will be sufficient to provide a complete picture of the extent to which new retail entities comply with conditions of exemption.	Noted.
Energy Australia, p4	Recommend the imposition of minimum customer protection measures (including membership of ombudsman schemes) and reporting obligations as a condition of retail exemption. If the Commission finds that there are informational gaps relating to the operation of new entities entering the energy market, encourage it to make recommendations to improve public and/or regulatory reporting.	The AEMC discusses as part of its consideration of new and emerging technologies and services, the potential implications for customer outcomes and customer protections. It does make some recommendations for industry and governments to improve the information available to customers about the nature of technologies and services available and the benefits and costs to consumers.
CALC, p4	AEMC should consult with fair trading agencies to consider complaints on dispute resolution between consumers and exempt energy sellers - impacts of	Noted. The AEMC has looked at overall customer complaint levels emerging from the relevant jurisdictional Ombudsmen reviews and reports.

Stakeholder(s)	Issue	AEMC Response
	energy market (ie ombudsman schemes review).	

Vulnerable customers

Stakeholder(s)	Issue	AEMC Response
CALC, p3; EWO NSW, p1; ECA, p4	Supports the inclusion of vulnerable consumer issues in the review. CALC states that information on what contracts they have and what prices are paid over time are useful. EWO NSW highlights the behavioural and external barriers that impact the ability of these consumers to access benefits of a competitive market.	Noted. Our customer research conducted for this year's review did seek to gather some information about the types of contracts customers are on and what plans they may be on. We also aimed to collect information on how often customers missed or were late paying their bills. Further, our vulnerable customer research also provides some useful insights into customer behaviours and attitudes when considering their energy and bill options.
EWO NSW, p2	Differences between different types of vulnerable customers and how they engage or disengage should be explored. Consider it is a spectrum rather than a particular type of consumer.	Newgate, our customer research consultant, undertook a segmentation analysis on the 2016 customer survey results. This revealed that customers fall into different segments of vulnerability from low to high. Further, it does consider customer attitudes and experiences. More detail is provided in Chapter 6.
EWO NSW, p2	Benefit in considering differences in competitive market experiences and outcomes between metro, regional, rural and remote customers.	Noted. Further information on the differences in customer experiences between urban and rural areas is provided in Newgate customer survey report, available on the AEMC website.
Energy Australia, p3, AGL p5	Encourages the Commission to be precise in its terminology of 'vulnerable customers who are not appearing to engage in retail markets', which seems to be its focus.	Noted. Refer to Chapter 6 for our consideration of vulnerable customers.
Energy Australia, p3	Encourage the Commission to have regard to recent and ongoing reviews relating to hardship and	Noted.

Stakeholder(s)	Issue	AEMC Response
	engagement as it undertakes its analysis.	
AGL, p5	Vulnerable customers tend to have different consumption profiles to the average retail customer base, consuming on average 40 per cent more of electricity per year than AGL's average customer base, and therefore compounding their financial difficulties. There is a critical role for well-targeted state government policies to assist vulnerable customers to reduce consumption and debt accrual in line with capacity to pay.	Noted. Refer to Chapter 6 for our consideration of vulnerable customers.

C Jurisdictional data

C.1 South East Queensland

Table C.1 South East Queensland: Electricity

Category	Measure	Period	2014 Review	2015 Review	2016 Review	Source
Market characteristics	Number of small customers	As at end of previous calendar year	1.34m	1.36m	1.4m	AEMC analysis, AEMO data
	Number of retail brands / businesses	As at end of previous calendar year	11 / 10	11 / 10	13 / 11	AEMC analysis, AEMO data
Customer activity	Small customers on market offers*	As at end of previous calendar year			48%	AER retail statistics
	Residential customers aware of retailer choice	As at date of consumer survey	91%	89%	92%	AEMC consumer research, 2014-2016
	Business customers aware of retailer choice	As at date of consumer survey	93%	95%	89%	AEMC consumer research, 2014-2016
	Residential customers investigating switching in last 12 months	As at date of consumer survey	30%	25%	26%	AEMC consumer research, 2014-2016
	Business customers investigating switching in last 12 months	As at date of consumer survey	27%	38%	30%	AEMC consumer research, 2014-2016
	Average switching rate in last calendar year	Average over previous calendar year	17%	16%	16%	AEMC analysis, AEMO data

Category	Measure	Period	2014 Review	2015 Review	2016 Review	Source
Customer outcomes	Residential customers satisfied with level of choice	As at date of consumer survey	49%	48%	60%	AEMC consumer research, 2014-2016
	Business customers satisfied with level of choice	As at date of consumer survey	53%	40%	62%	AEMC consumer research, 2014-2016
	Residential customers satisfied with retailer	As at date of consumer survey	66%	63%	70%	AEMC consumer research, 2014-2016
	Business customers satisfied with retailer	As at date of consumer survey	61%	56%	69%	AEMC consumer research, 2014-2016
	Customer complaints to Ombudsman (per 10,000 customers)	Total over previous financial year	68	71	52	AEMC analysis, the Energy & Water Ombudsman QLD data
	Customer complaints to retailers (per 10,000 customers, includes gas complaints)	Total over previous financial year	225	402	730	AEMC analysis, AER data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Difficult	Neither difficult nor easy	Neither difficult nor easy	AEMC energy retailer survey, 2014-2016
	Median rating from retailer survey - Expansion	As at date of retailer survey	Difficult	Neither difficult nor easy	Neither difficult nor easy	AEMC Energy Retailer Survey, 2014-2016
Independent rivalry	Market share of Big 2*	As at end of previous calendar year	85%	83%	82%	AEMC analysis, AEMO and AER data

Category	Measure	Period	2014 Review	2015 Review	2016 Review	Source
	Market share of non-big 2	As at end of previous calendar year	15%	17%	18%	AEMC analysis, AEMO and AER data
	Market concentration (HHI)	As at end of previous calendar year	4,079	3,895	3,807	AEMC analysis, AEMO data
Competitive retail prices**	Range of bill outcomes - Energex	As at end-February	N/A	\$1429 - \$1681	\$1294 - \$1709	AEMC analysis, EnergyMadeEasy website

* Data for whole of QLD.

** Based on flat tariff offers as at 27 February 2016, without GreenPower, for a representative customer consumption of 5173kWh annually, of which 1552kWh is controlled load. 2015 based on a representative customer consumption of 4533kWh annually.

Table C.2 South East Queensland: Gas

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Market characteristics	Number of customers ('000)*	As at end of previous calendar year	179	183	188	AEMC analysis, AEMO data
	Number of retail brands / businesses	As at end of previous calendar year	2 / 2	2 / 2	2 / 2	AEMC analysis, AEMO data
Customer activity	Small customers on market offers*	As at end of previous calendar year			52%	AER retail statistics

Category	Measure	Period	2014 review	2015 review	2016 review	Source
	Average switching rate in last financial year	Average over previous calendar year	12%	11%	9%	AEMC analysis, AEMO data
	Residential customers aware of retailer choice	As at date of consumer survey	88%	86%	89%	AEMC consumer research, 2014-2016
Customer outcomes	Residential customers satisfied with retailer	As at date of consumer survey	78%	65%	79%	AEMC consumer research, 2014-2016
	Customer complaints to Ombudsman (per 10,000 customers)	Total over previous financial year	25	24	22	AEMC analysis, the Energy & Water Ombudsman QLD data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Difficult	Neither difficult nor easy	Neither difficult nor easy	AEMC energy retailer survey, 2014-2016
	Median rating from retailer survey - Expansion	As at date of retailer survey	Difficult	Neither difficult nor easy	Neither difficult nor easy	AEMC energy retailer survey, 2014-2016
Independent rivalry	Market share of Big 3*	As at end of previous calendar year	59%	57%	65%	AEMC analysis, AER data
	Market share of non-big 3*	As at end of previous calendar year	41%	44%	34%	AEMC analysis, AER data
	Market concentration (HHI)*	As at end of previous calendar year	5,162	5,085	5,287	AEMC analysis, AER data

* Data for whole of QLD.

Table C.3 South East Queensland: Electricity Offers

	Offers	Retailers
All flat rate standing offers	16	10
All flat rate market offers	43	9
• Fixed terms/benefit periods		
- Ongoing with benefit period	11	4
- No contract term	18	3
- 2 years	10	2
- 3 years	2	1
• Features		
- Conditional discounts	32	8
- Guaranteed discounts	0	0
- No discounts	11	4
• Effective discount rate range		
Maximum 15%, large cluster between 4% and 10% per cent		
Other Incentives and offers (market and standing)	Offers	Retailers
Price	14	3
Non-price	21	3
Time-of-use offers	15	5
Fixed vs. non-fixed rate market offers	Fixed	Non-fixed
Number of offers	1	42

Note: Available to a representative residential customer in South East Queensland with annual consumption of 5,173 kWh, as at 27 February 2016.

Table C.4 South East Queensland: Gas Offers

	Offers	Retailers
All standing offers	6	2
All market offers	17	2
• Fixed terms/benefit periods		

	Offers	Retailers
- Ongoing with benefit period	13	2
• No contract term	4	1
Discount Conditional – off usage	13	2
• Average nominal discount rate		
5%		
Fixed vs non-fixed rate market offer	Fixed	Non-fixed
Number of offers	0	17

Note: Available to residential customers as at 23-28 February 2016.

Figure C.1 Derivative turnover and liquidity ratio in Queensland

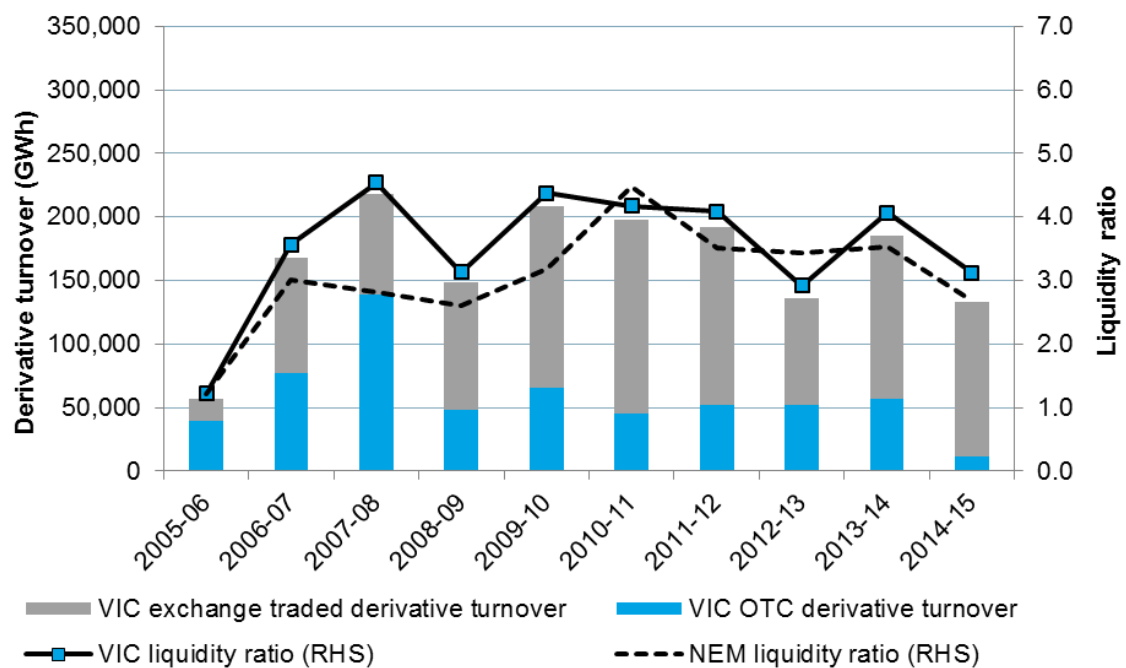


Figure C.2 **Range of bills for a representative residential customer in South East Queensland (Energex Supply Area) – Market and standing offers**

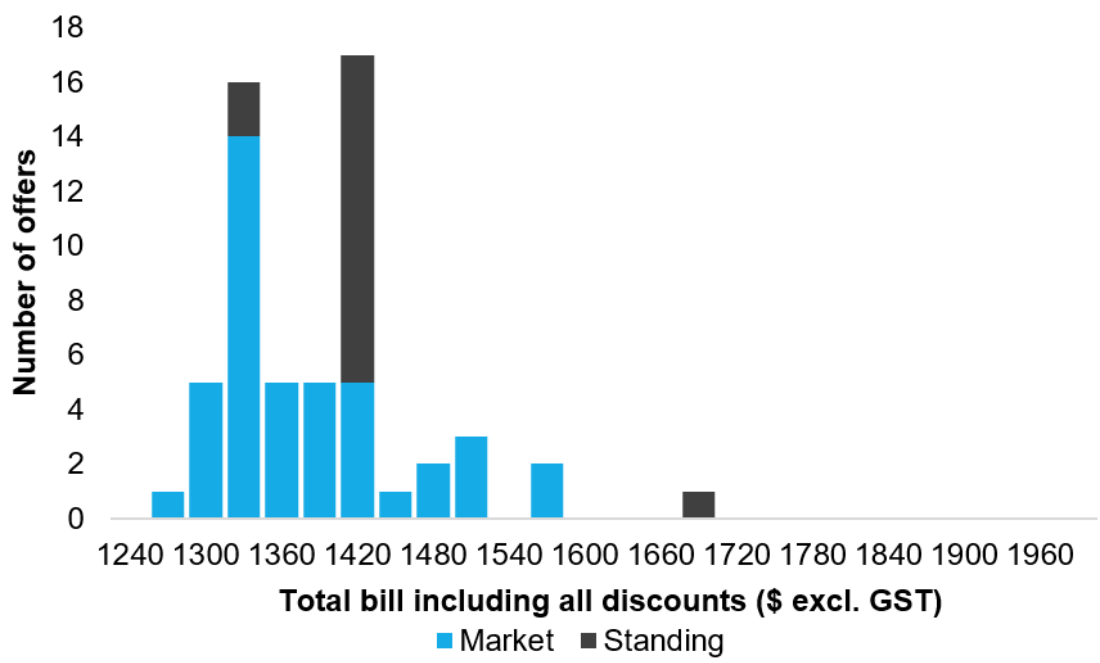
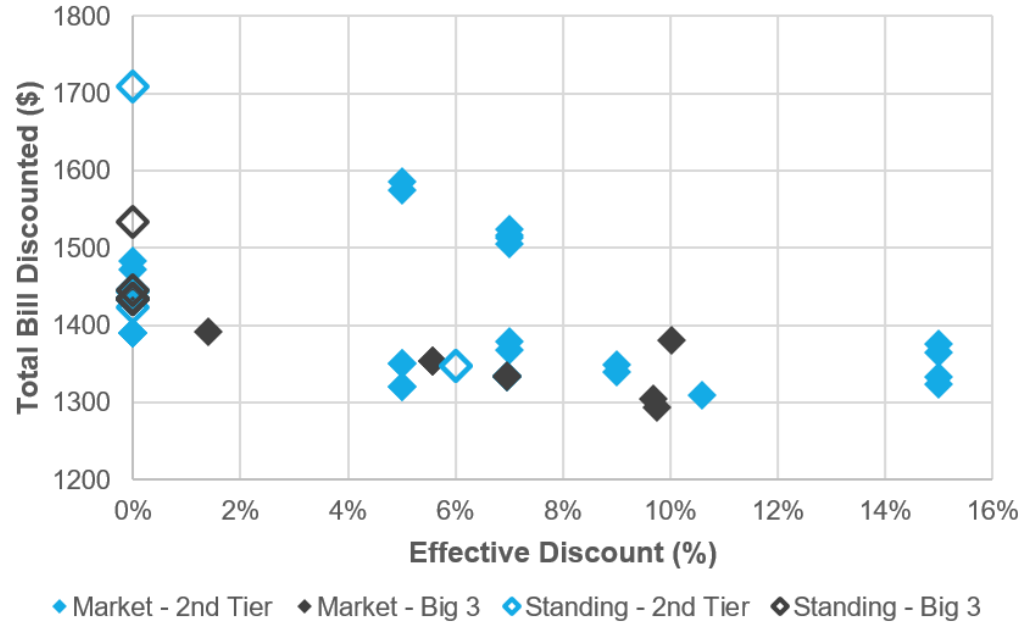


Figure C.3 **Bill outcome versus effective discount for a representative residential customer in South East Queensland (Energex supply area)**



C.2 New South Wales

Table C.5 New South Wales: Electricity

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Market characteristics	Number of small customers	As at end of previous calendar year	3.35m	3.39m	3.42m	AEMC analysis, AEMO data
	Number of retail brands / businesses	As at end of previous calendar year	15 / 13	20 / 16	26 / 22	AEMC analysis, AEMO data
Customer activity	Small customers on market offers	As at end of previous calendar year	61%	67%	72%	AER retail statistics
	Residential customers aware of retailer choice	As at date of consumer survey	90%	89%	92%	AEMC consumer research, 2014-2016
	Business customers aware of retailer choice	As at date of consumer survey	86%	95%	92%	AEMC consumer research, 2014-2016
	Residential customers investigating switching in last 12 months	As at date of consumer survey	27%	33%	32%	AEMC consumer research, 2014-2016
	Business customers investigating switching in last 12 months	As at date of consumer survey	41%	32%	28%	AEMC consumer research, 2014-2016
	Average switching rate in last calendar year	Average over previous calendar year	18%	15%	17%	AEMC analysis, AEMO data

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Customer outcomes	Residential customers satisfied with level of choice	As at date of consumer survey	48%	60%	62%	AEMC consumer research, 2014-2016
	Business customers satisfied with level of choice	As at date of consumer survey	54%	48%	67%	AEMC consumer research, 2014-2016
	Residential customers satisfied with retailer	As at date of consumer survey	69%	74%	73%	AEMC consumer research, 2014-2016
	Business customers satisfied with retailer	As at date of consumer survey	66%	61%	63%	AEMC consumer research, 2014-2016
	Customer complaints to Ombudsman (per 10,000 customers)	Total over previous financial year	117	119	94	AEMC analysis, the Energy & Water Ombudsman NSW data
	Customer complaints to retailers (per 10,000 customers)	Total over previous financial year	263	523	769	AEMC analysis, AER data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Neither difficult nor easy	Neither difficult nor easy to easy	Neither difficult nor easy to easy	AEMC energy retailer survey, 2014-2016
	Median rating from retailer survey - Expansion	As at date of retailer survey	Difficult to Neither difficult nor easy	Neither difficult nor easy to easy	Neither difficult nor easy to easy	AEMC Energy Retailer Survey, 2014-2016
Independent rivalry	Market share of Big 3	As at end of previous calendar year	96%	93%	91%	AEMC analysis, AEMO and AER data

Category	Measure	Period	2014 review	2015 review	2016 review	Source
	Market share of non-big 3	As at end of previous calendar year	4%	7%	9%	AEMC analysis, AEMO and AER data
	Market concentration (HHI)	As at end of previous calendar year	3,170	2,988	2,854	AEMC analysis, AEMO data
Competitive retail prices*	Range of bill outcomes - Ausgrid	As at end-February	N/A	\$1412 - 1929	\$1051 - \$1612	AEMC analysis, EnergyMadeEasy website
	Range of bill outcomes - Endeavour Energy	As at end-February	N/A	\$1414 - \$1963	\$1047 - \$1458	AEMC analysis, EnergyMadeEasy website
	Range of bill outcomes - Essential Energy	As at end-February	N/A	\$1849 - \$2567	\$1343 - \$1984	AEMC analysis, EnergyMadeEasy website

* Based on flat tariff offers as at 27 February 2016, without GreenPower, for a representative customer consumption of 5936kWh annually, of which 1900kWh is controlled load. 2015 based on a representative customer consumption of 6500kWh annually.

Table C.6 New South Wales: Gas

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Market characteristics	Number of customers	As at end of previous calendar year	1.19m	1.23m	1.27m	AEMC analysis, AEMO data

Category	Measure	Period	2014 review	2015 review	2016 review	Source
	Number of retail brands / businesses	As at end of previous calendar year	5 / 4	6 / 5	8 / 6	AEMC analysis, AEMO data
Customer activity	Small customers on market offers	As at end of previous calendar year	70%	75%	79%	AER retail statistics
	Average switching rate in last financial year (includes ACT)	Average over previous calendar year	20%	12%	14%	AEMC analysis, AEMO data
	Residential customers aware of retailer choice	As at date of consumer survey	85%	88%	88%	AEMC consumer research, 2014-2016
Customer outcomes	Residential customers satisfied with retailer	As at date of consumer survey	78%	79%	70%	AEMC consumer research, 2014-2016
	Customer complaints to Ombudsman (per 10,000 customers)	Total over previous financial year	44	58	65	AEMC analysis, the Energy & Water Ombudsman NSW data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Neither difficult nor easy	Neither difficult nor easy to easy	Neither difficult nor easy to easy	AEMC energy retailer survey, 2014-2016
	Median rating from retailer survey - Expansion	As at date of retailer survey	Difficult to Neither difficult nor easy	Neither difficult nor easy to easy	Neither difficult nor easy	AEMC energy retailer survey, 2014-2016

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Independent rivalry	Market share of Big 3	As at end of previous calendar year	100%	99%	97%	AEMC analysis, AER data
	Market share of non-big 3	As at end of previous calendar year	0%	1%	3%	AEMC analysis, AER data
	Market concentration (HHI)	As at end of previous calendar year	5,234	4,293	3,824	AEMC analysis, AER data

Table C.7 New South Wales: Electricity Offers

	Offers	Retailers
All flat rate standing offers	98	22
All flat rate market offers	183	20
• Market offers by DNSP		
- Ausgrid	62	19
- Endeavour	60	18
- Essential	61	17
• Fixed terms/benefit periods		
- Ongoing with benefit period	79	8
- No contract term	57	9
- 1 year	5	2
- 2 years	30	6
- 3 years	6	1
- 5 years	6	1
• Features		
- Conditional discounts	147	18
- Guaranteed discounts	5	2
- No discounts	31	7
• Effective discount rate range		
Maximum 20%, large cluster between 7% and 16% per cent		
Other Incentives and offers (market and standing)	Offers	Retailers
Price	113	7
Non-price	63	5
Time-of-use offers	269	17
Fixed vs. non-fixed rate market offers	Fixed	Non-fixed
Number of offers	12	171

Note: Available to a representative residential customer in New South Wales with annual consumption of 5,936 kWh, as at 27 February 2016.

Table C.8 New South Wales: Gas Offers

	Offers	Retailers
All standing offers	13	7
All market offers	50	7
• Fixed terms/benefit periods		
- Ongoing with benefit period	31	3
- No contract term	16	5
- 2 years	3	2
Discount Conditional – off bill	3	2
Discount Conditional – off usage	33	5
• Average nominal discount rate		
8% (off bill); 12% (off usage)		
Fixed vs non-fixed rate market offer	Fixed	Non-fixed
Number of offers	3	47

Note: Available to residential customers as at 23-28 February 2016.

Figure C.4 Derivative turnover and liquidity ratio in NSW

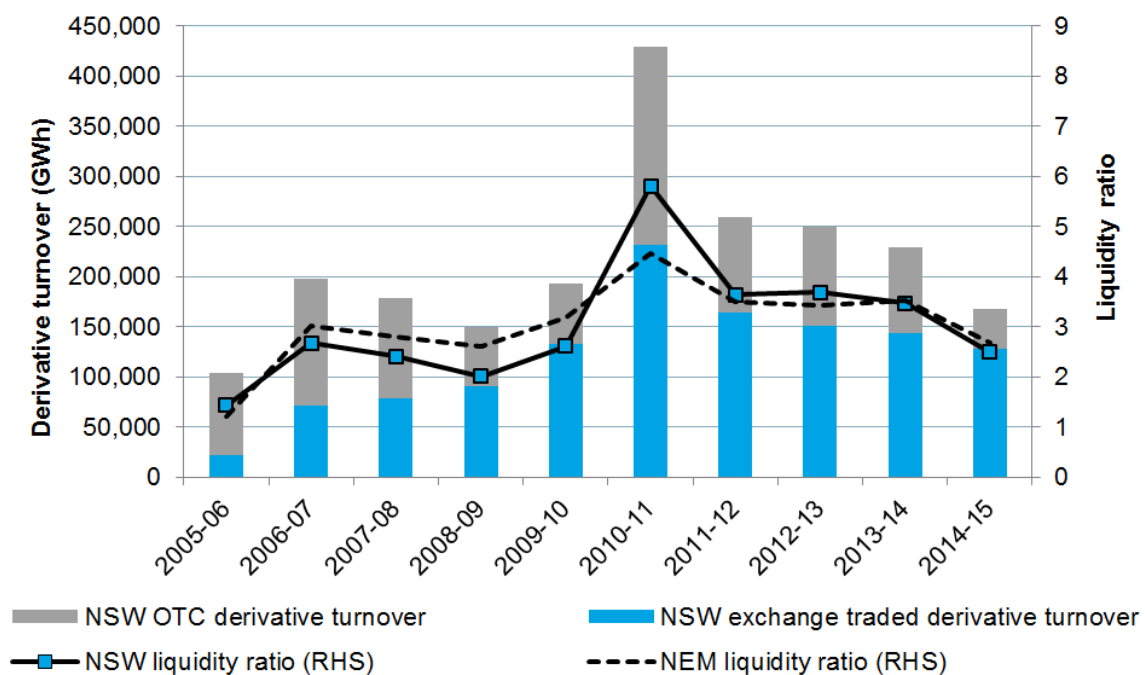


Figure C.5 **Range of bills for representative residential customer in NSW (Ausgrid Supply Area) – Market and standing offers**

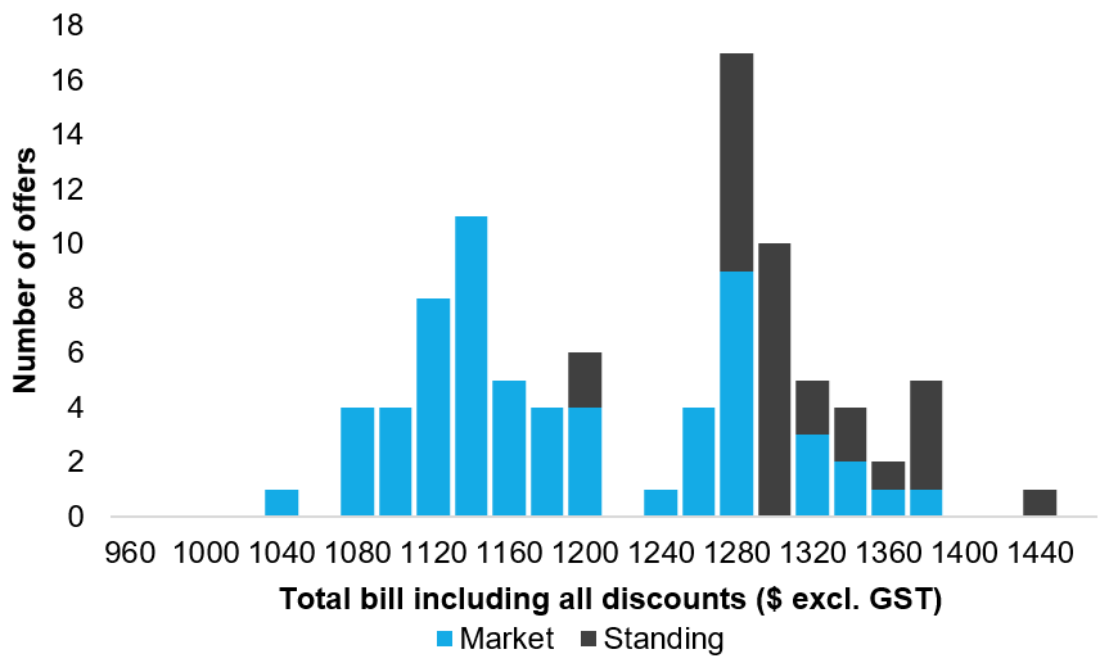


Figure C.6 **Bill outcome versus effective discount for a representative residential customer in NSW (Ausgrid supply area)**

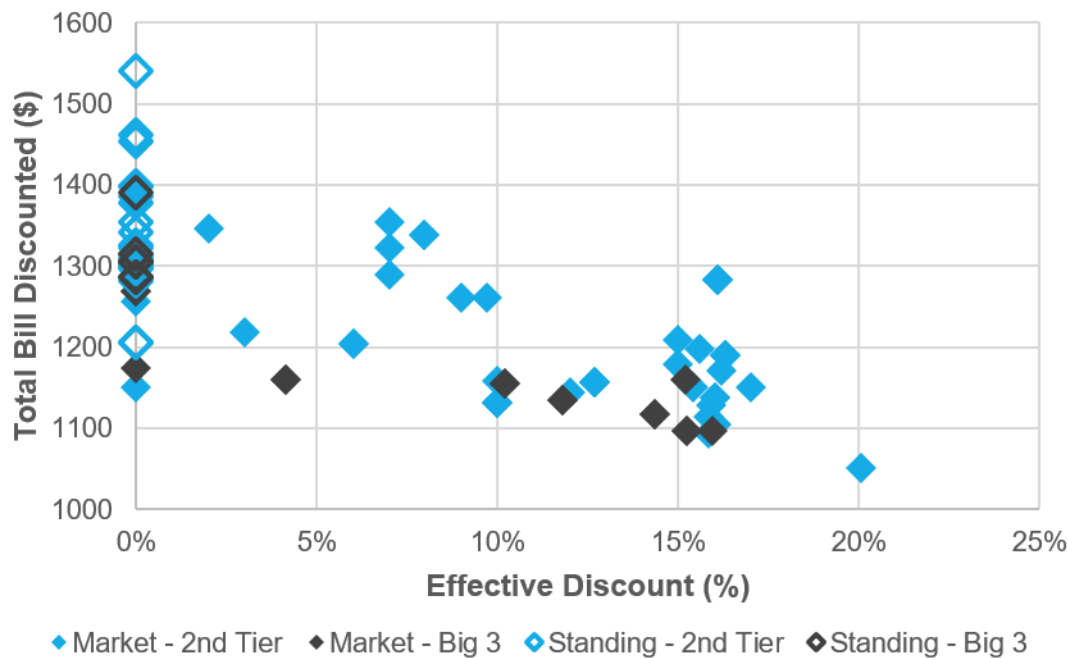


Figure C.7 Range of bills for representative residential customer in NSW (Endeavour Energy Supply Area) – Market and standing offers

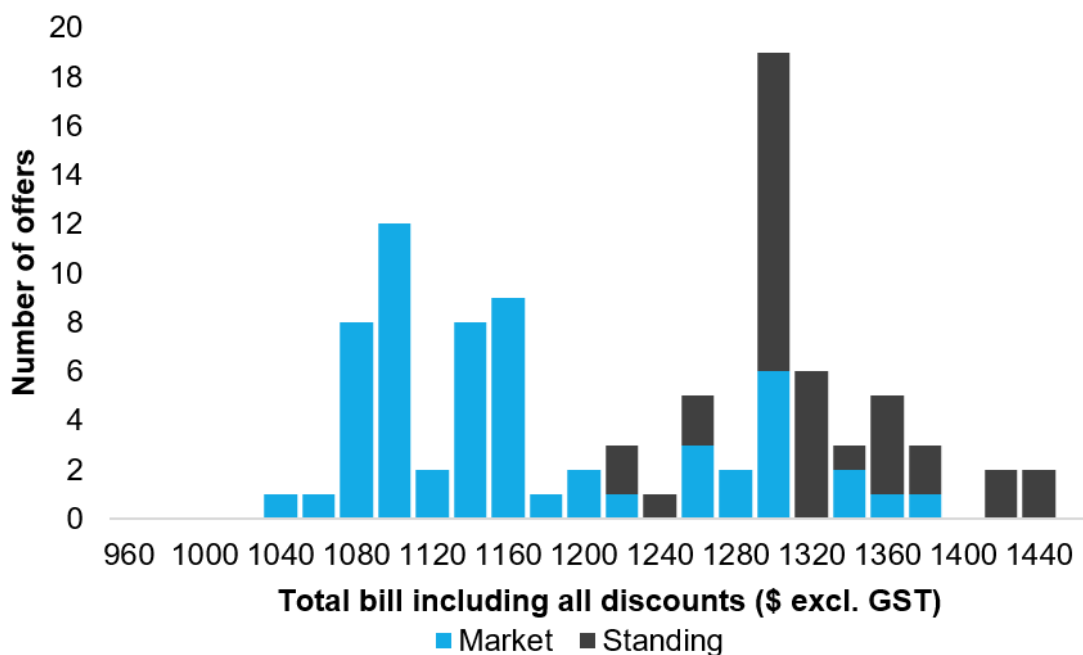


Figure C.8 Bill outcome versus effective discount for a representative residential customer in NSW (Endeavour Energy supply area)

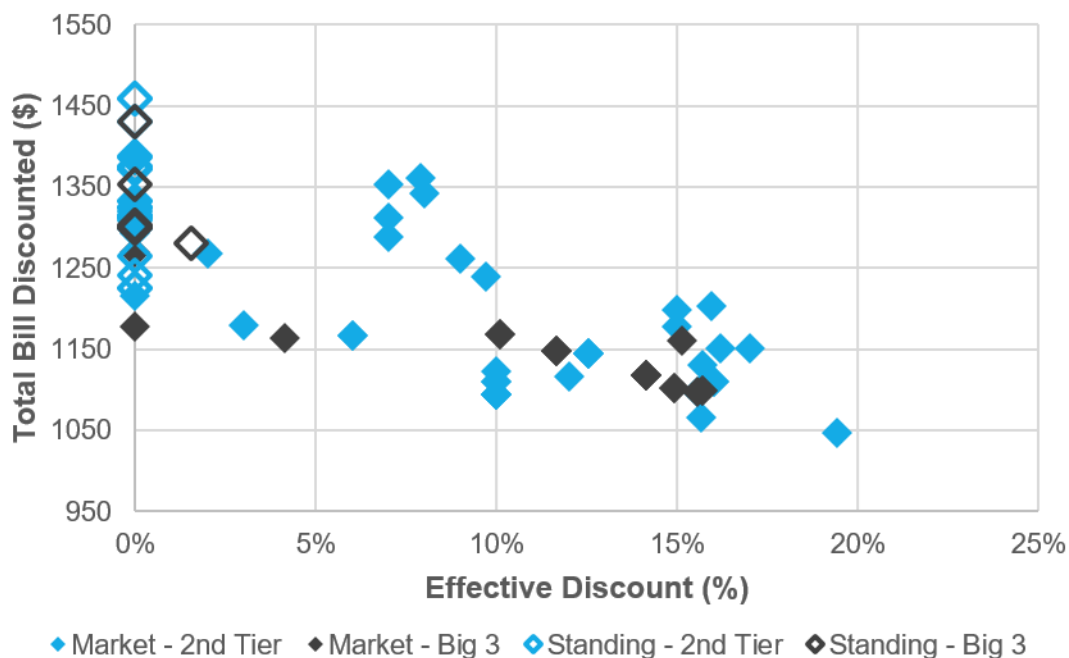


Figure C.9 Range of bills for representative residential customer in NSW (Essential Energy Supply Area) – Market and standing offers

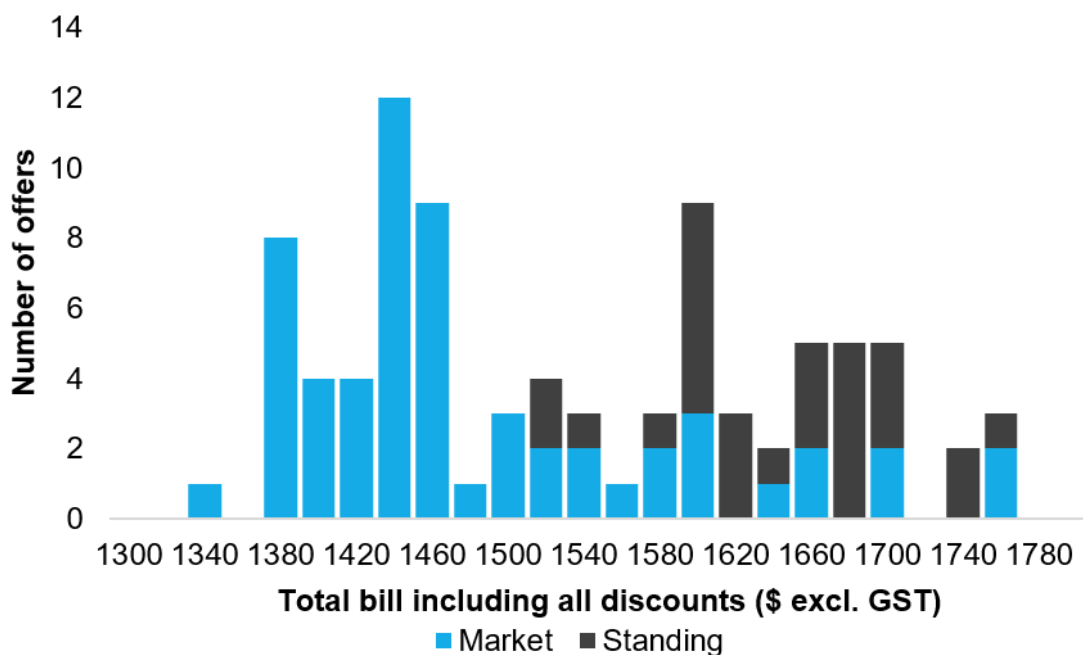
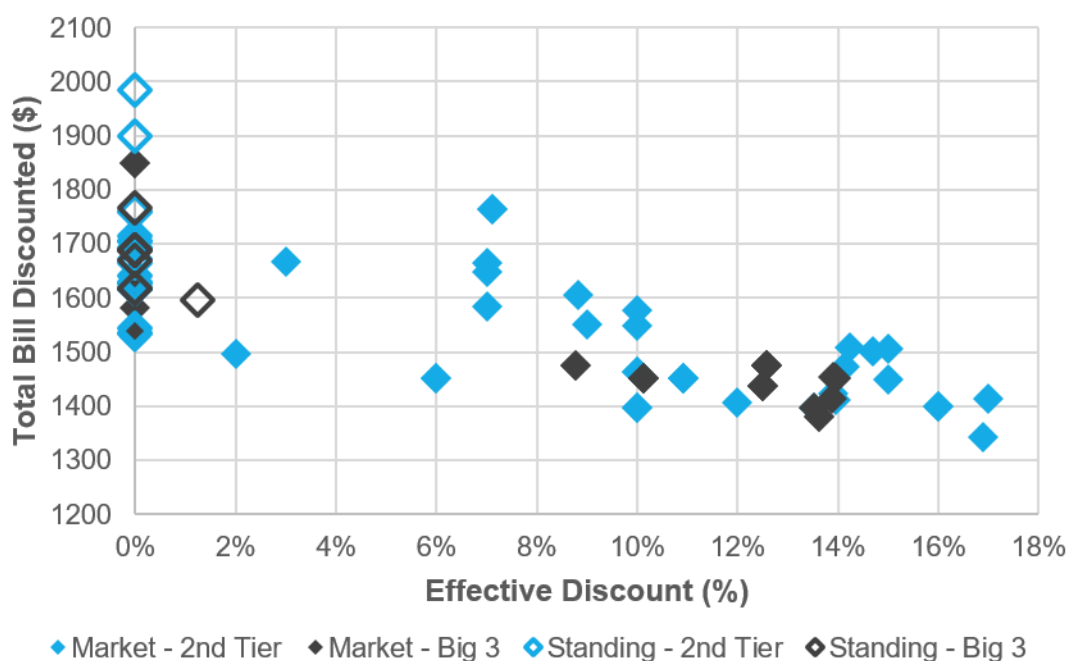


Figure C.10 Bill outcome versus effective discount for a representative residential customer in NSW (Essential Energy supply area)



C.3 Australian Capital Territory

Table C.9 Australian Capital Territory: Electricity

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Market characteristics	Number of small customers	As at end of previous calendar year	0.17m	0.18m	0.18m	AEMC analysis, AEMO data
	Number of retail brands / businesses	As at end of previous calendar year	3 / 3	4 / 4	4 / 4	AEMC analysis, AEMO data
Customer activity	Small customers on market offers	As at end of previous calendar year	19%	22%	24%	AER retail statistics
	Residential customers aware of retailer choice	As at date of consumer survey	57%	72%	73%	AEMC consumer research, 2014-2016
	Business customers aware of retailer choice	As at date of consumer survey	63%	73%	72%	AEMC consumer research, 2014-2016
	Residential customers investigating switching in last 12 months	As at date of consumer survey	10%	19%	23%	AEMC consumer research, 2014-2016
	Business customers investigating switching in last 12 months	As at date of consumer survey	6%	9%	12%	AEMC consumer research, 2014-2016
	Average switching rate in last calendar year	Average over previous calendar year	1.5%	1.5%	4.3%	AEMC analysis, AEMO data
Customer	Residential customers satisfied	As at date of consumer	32%	34%	47%	AEMC consumer

Category	Measure	Period	2014 review	2015 review	2016 review	Source
outcomes	with level of choice	survey				research, 2014-2016
	Business customers satisfied with level of choice	As at date of consumer survey	38%	33%	48%	AEMC consumer research, 2014-2016
	Residential customers satisfied with retailer	As at date of consumer survey	73%	67%	73%	AEMC consumer research, 2014-2016
	Business customers satisfied with retailer	As at date of consumer survey	75%	72%	70%	AEMC consumer research, 2014-2016
	Customer complaints to Ombudsman (per 10,000 customers)	Total over previous financial year	12	10	9	AEMC analysis, the ACT Civil and Administrative Tribunal data
	Customer complaints to retailers (per 10,000 customers)	Total over previous financial year	111	144	151	AEMC analysis, AER data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Difficult to Neither difficult nor easy	Difficult	Difficult to Neither difficult nor easy	AEMC energy retailer survey, 2014-2016
	Median rating from retailer survey - Expansion	As at date of retailer survey	Very difficult	Difficult	Difficult to Neither difficult nor easy	AEMC Energy Retailer Survey, 2014-2016
Independent rivalry	Market share of Big 3	As at end of previous calendar year	96%	96%	93%	AEMC analysis, AEMO and AER data

Category	Measure	Period	2014 review	2015 review	2016 review	Source
	Market share of non-big 3	As at end of previous calendar year	4%	4%	7%	AEMC analysis, AEMO and AER data
	Market concentration (HHI)	As at end of previous calendar year	9,197	9,165	8,702	AEMC analysis, AEMO data
Competitive retail prices*	Range of bill outcomes - ActewAGL	As at end-February	N/A	\$1241 - \$1568	\$1239 - \$1524	AEMC analysis, EnergyMadeEasy website

* Based on flat tariff offers as at 27 February 2016, without GreenPower, for a representative customer consumption of 7312kWh annually. 2015 based on a representative customer consumption of 7180kWh annually.

Table C.10 Australian Capital Territory: Gas

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Market characteristics	Number of customers ('000)	As at end of previous calendar year	127	132	137	AEMC analysis, AEMO data
	Number of retail brands / businesses	As at end of previous calendar year	2 / 2	3 / 3	3 / 3	AEMC analysis, AEMO data
Customer activity	Small customers on market offers	As at end of previous calendar year	21%	21%	26%	AER retail statistics
	Average switching rate in last calendar year	Average over previous calendar year	See NSW table	See NSW table	See NSW table	See NSW table

Category	Measure	Period	2014 review	2015 review	2016 review	Source
	Residential customers aware of retailer choice	As at date of consumer survey	36%	54%	47%	AEMC consumer research, 2014-2016
Customer outcomes	Residential customers satisfied with retailer	As at date of consumer survey	69%	66%	66%	AEMC consumer research, 2014-2016
	Customer complaints to Ombudsman (per 10,000 customers)	Total over previous financial year	11	9	13	AEMC analysis, the ACT Civil and Administrative Tribunal data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Very difficult to Difficult	Difficult to Neither difficult nor easy	Difficult to Neither difficult nor easy	AEMC energy retailer survey, 2014-2016
	Median rating from retailer survey - Expansion	As at date of retailer survey	Very difficult	Difficult to Neither difficult nor easy	Difficult to Neither difficult nor easy	AEMC energy retailer survey, 2014-2016
Independent rivalry	Market share of ActewAGL	As at end of previous calendar year	96%	96%	94%	AEMC analysis, AER data
	Market share of others	As at end of previous calendar year	4%	4%	6%	AEMC analysis, AER data
	Market concentration (HHI)	As at end of previous calendar year	9,250	9,232	8,928	AEMC analysis, AER data

Table C.11 Australian Capital Territory: Electricity Offers

	Offers	Retailers
All flat rate standing offers	6	4
All flat rate market offers	12	3
• Fixed terms/benefit periods		
- Ongoing with benefit period	7	2
- No contract term	5	2
• Features		
- Conditional discounts	10	3
- Guaranteed discounts	0	0
- No discounts	2	1
• Effective discount rate range – flat rate offers		
Maximum 11%, large cluster between 3% and 9% per cent		
Other Incentives and offers (market and standing)	Offers	Retailers
Price	8	1
Non-price	8	1
Time-of-use offers	9	1
Fixed vs. non-fixed rate market offers	Fixed	Non-fixed
Number of offers	0	12

Note: Available to a representative residential customer in the Australian Capital Territory with annual consumption of 7,312 kWh, as at 27 February 2016.

Table C.12 Australian Capital Territory: Gas Offers

	Offers	Retailers
All standing offers	4	2
All market offers	5	2
• Fixed terms/benefit periods		
• Ongoing with benefit period	3	1
• 1 year	1	1

	Offers	Retailers
• 2 years	1	1
Discount Conditional – off usage	4	2
• Average nominal discount rate		
16%		
Fixed vs non-fixed rate market offer	Non-fixed	Fixed
Number of offers	4	1

Note: Available to residential customers as at 23-28 February 2016.

Figure C.11 Range of bills for representative residential customer in the ACT (ActewAGL Supply Area) – Market and standing offers

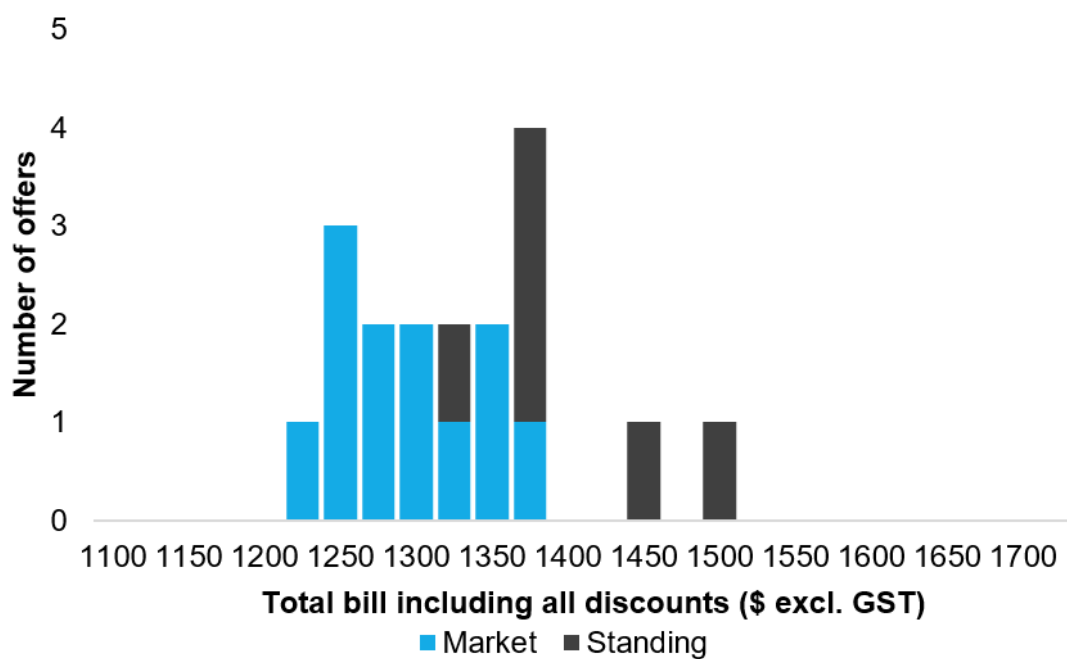
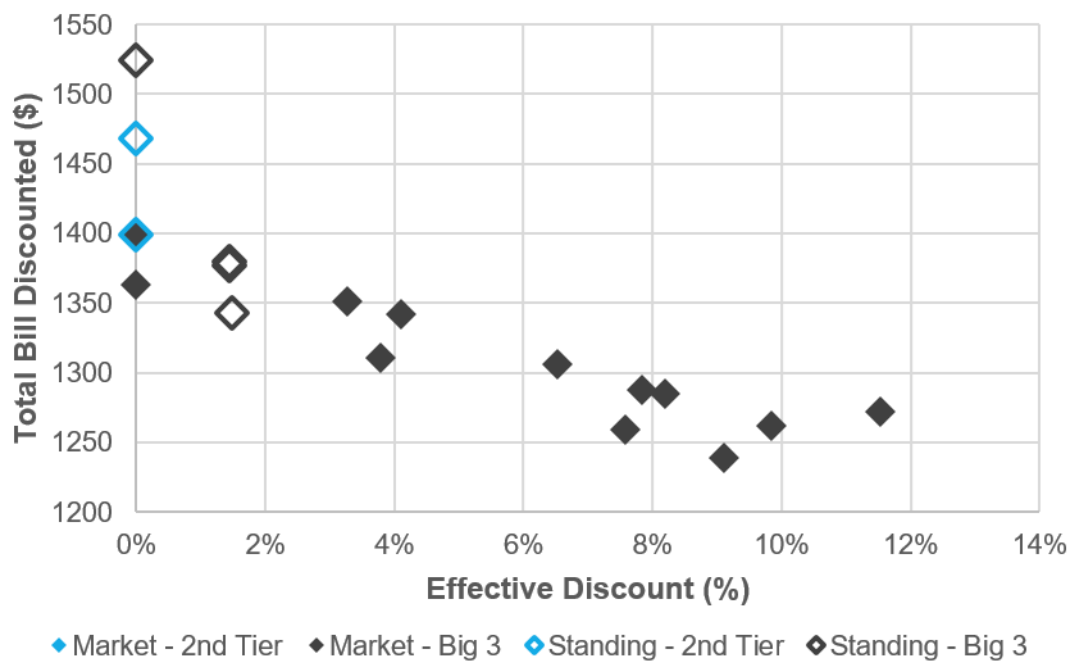


Figure C.12 Bill outcome versus effective discount for a representative residential customer in the ACT (ActewAGL supply area)



C.4 Victoria

Table C.13 Victoria: Electricity

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Market characteristics	Number of small customers	As at end of previous calendar year	2.67m	2.70m	2.74m	AEMC analysis, AEMO data
	Number of retail brands/businesses	As at end of previous calendar year	18 / 16	21 / 17	25 / 22	AEMC analysis, AEMO data
Customer activity	Small customers on market offers	As at end of previous financial year		89%	90%	ESC Comparative Performance Report, Customer Service
	Residential customers aware of retailer choice	As at date of consumer survey	95%	96%	95%	AEMC consumer research, 2014-2016
	Business customers aware of retailer choice	As at date of consumer survey	89%	99%	94%	AEMC consumer research, 2014-2016
	Residential customers investigating switching in last 12 months	As at date of consumer survey	39%	36%	32%	AEMC consumer research, 2014-2016
	Business customers investigating switching in last 12 months	As at date of consumer survey	57%	36%	39%	AEMC consumer research, 2014-2016
	Average switching rate in last calendar year	Average over previous calendar year	29%	27%	25%	AEMC analysis, AEMO data

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Customer outcomes	Residential customers satisfied with level of choice	As at date of consumer survey	57%	63%	69%	AEMC consumer research, 2014-2016
	Business customers satisfied with level of choice	As at date of consumer survey	64%	51%	64%	AEMC consumer research, 2014-2016
	Residential customers satisfied with retailer	As at date of consumer survey	64%	67%	73%	AEMC consumer research, 2014-2016
	Business customers satisfied with retailer	As at date of consumer survey	67%	65%	74%	AEMC consumer research, 2014-2016
	Customer complaints to Ombudsman (per 10,000 customers)	Total over previous financial year	306	291	160	AEMC analysis, the Energy & Water Ombudsman Victoria data
	Customer complaints to retailers (per 10,000 customers)	Total over previous financial year	494	713	696	AEMC analysis, ESC data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Easy	Neither difficult nor easy to Easy	Neither difficult nor easy to Easy	AEMC energy retailer survey, 2014-2016
	Median rating from retailer survey - Expansion	As at date of retailer survey	Neither difficult nor easy to Easy	Neither difficult nor easy to Easy	Neither difficult nor easy to Easy	AEMC energy retailer survey, 2014-2016
Independent rivalry	Market share of Big 3	As at end of previous calendar year	70%	65%	63%	AEMC analysis, AEMO and AER data

Category	Measure	Period	2014 review	2015 review	2016 review	Source
	Market share of non-big 3	As at end of previous calendar year	30%	35%	37%	AEMC analysis, AEMO and AER data
	Market concentration (HHI)	As at end of previous calendar year	1,818	1,765	1,679	AEMC analysis, AEMO data
Competitive retail prices*	Range of bill outcomes - Jemena	As at 15 October 2015	N/A	\$1234 - \$1800	\$1023 - \$1525	AEMC analysis, Victoria Energy Compare website
	Range of bill outcomes - United Energy	As at 15 October 2015	N/A	\$1193 - \$1683	\$974 - \$1443	AEMC analysis, Victoria Energy Compare website
	Range of bill outcomes - CitiPower	As at 15 October 2015	N/A	\$1038 - \$1571	\$857 - \$1336	AEMC analysis, Victoria Energy Compare website
	Range of bill outcomes - Powercor	As at 15 October 2015	N/A	\$1306 - \$1826	\$1048 - \$1545	AEMC analysis, Victoria Energy Compare website
	Range of bill outcomes - AusNet Services	As at 15 October 2015	N/A	\$1380 - \$1943	\$1131 - \$1787	AEMC analysis, Victoria Energy Compare website

* Based on flat tariff offers as at 15 October 2015, without GreenPower, for a representative customer consumption of 4026kWh annually. 2015 based on a representative customer consumption of 4645kWh annually.

Table C.14 Victoria: Gas

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Market characteristics	Number of customers	As at end of previous calendar year	1.9m	1.9m	1.9m	AEMC analysis, AEMO data
	Number of retail brands / businesses	As at end of previous calendar year	8 / 8	10 / 9	10 / 9	AEMC analysis, AEMO data
Customer activity	Small customers on market offers	As at end of previous financial year		87%	88%	ESC Comparative Performance Report, Customer Service
	Average switching rate in last financial year	Average over previous calendar year	26%	29%	22%	AEMC analysis, AEMO data
	Residential customers aware of retailer choice	As at date of consumer survey	95%	96%	93%	AEMC consumer research, 2014-2016
Customer outcomes	Residential customers satisfied with retailer	As at date of consumer survey	67%	70%	74%	AEMC consumer research, 2014-2016
	Customer complaints to Ombudsman (per 10,000 customers)	Total over previous financial year	137	142	84	AEMC analysis, the Energy & Water Ombudsman Victoria data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Easy	Easy to neither difficult nor easy	Neither difficult nor easy	AEMC energy retailer survey, 2014-2016

Category	Measure	Period	2014 review	2015 review	2016 review	Source
	Median rating from retailer survey - Expansion	As at date of retailer survey	Neither difficult nor easy	Neither difficult nor easy	Neither difficult nor easy	AEMC energy retailer survey, 2014-2016
Independent rivalry	Market share of Big 3	As at end of previous calendar year	82%	76%	72%	AEMC analysis, AER data
	Market share of non-big 3	As at end of previous calendar year	18%	24%	28%	AEMC analysis, AER data
	Market concentration (HHI)	As at end of previous calendar year	2,390	2,212	2,050	AEMC analysis, AER data

Table C.15 Victorian: Electricity Offers

	Offers	Retailers
All flat rate standing offers	95	20
All flat rate market offers	230	20
• Market offers by DNSP		
- Jemena	48	18
- United Energy	47	19
- CitiPower	46	19
- Powercor	47	19
- AusNet Service	42	19
• Features		
- Conditional discounts	212	16
- No discounts	18	3
• Effective discount rate range		
Maximum 27%, large cluster between 13% and 24% per cent		
Other Incentives and offers (market and standing)	Offers	Retailers
Time-of-use offers	363	17

Note: Available to a representative residential customer with annual consumption of 4,026kWh in Victoria, as at 15 October 2015. At the time of analysis, data from the Victorian comparison website Victorian Energy Compare did not contain data relating to fixed terms, benefit periods, or other price and non-price benefits.

Table C.16 Victorian: Gas Offers

	Offers	Retailers
All standing offers	104	8
All market offers	351	9
• Fixed terms/benefit periods		
- No contract term	255	9
- 1 year	56	2
- 2 years	40	2

	Offers	Retailers
Discount Conditional - off bill	79	3
Discount Conditional – off usage	16	5
• Average effective discount rate		
11%		
Fixed vs non-fixed rate market offer	Non-fixed	Fixed
Number of offers	338	13

Note: Available to residential customers as at 9 May 2016.

Figure C.13 Derivative turnover and liquidity ratio in VIC

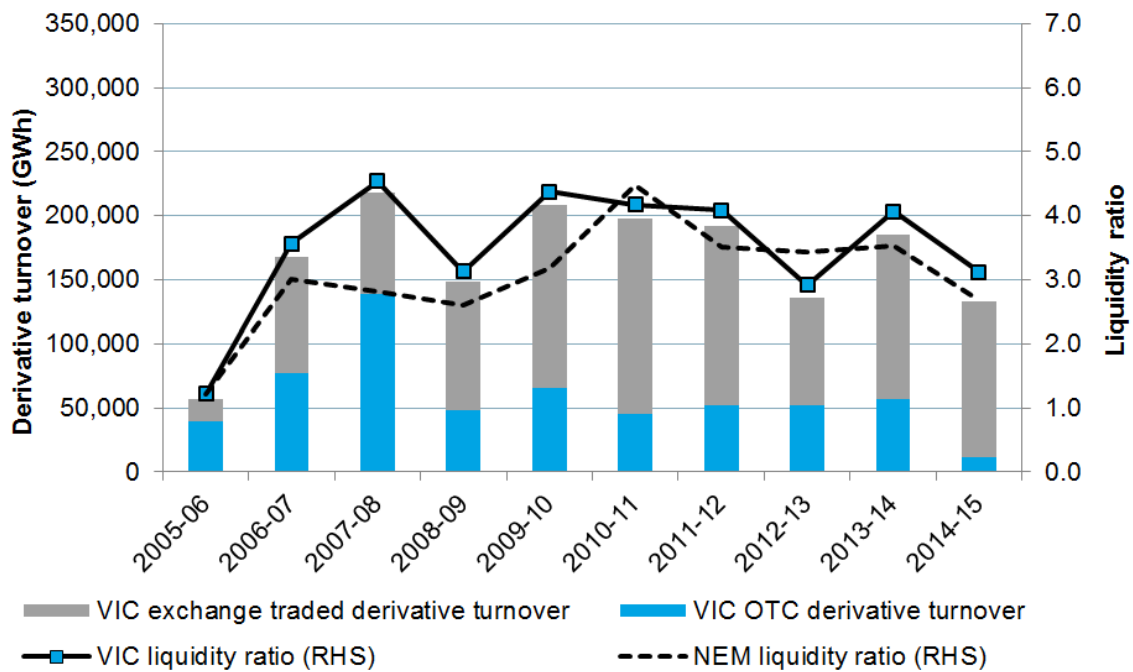


Figure C.14 Range of bills for representative retailer customer in Victoria (CitiPower Supply Area) – Market and standing offers

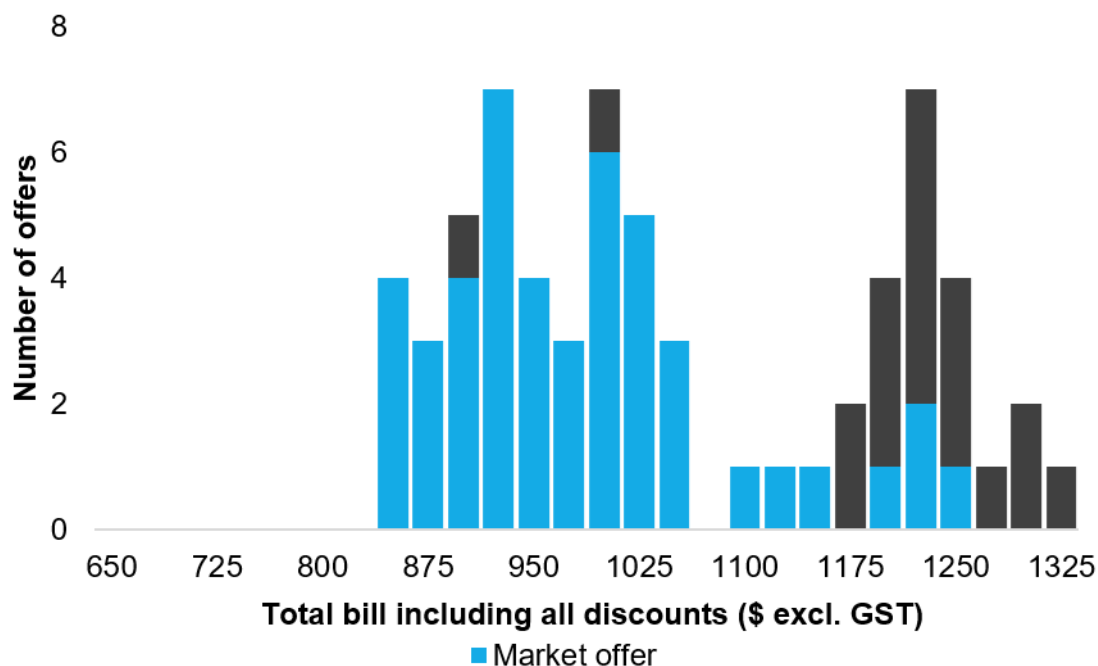


Figure C.15 Range of bills for representative retailer customer in Victoria (CitiPower Supply Area) – Market and standing offers

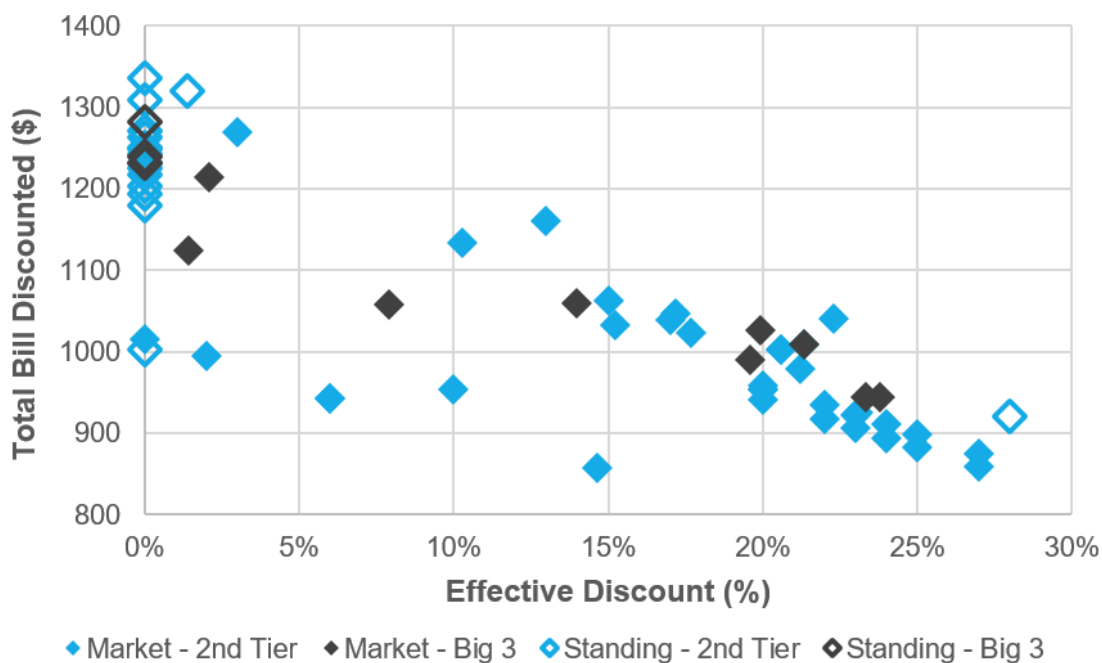


Figure C.16 Changes in bills over time (CitiPower Supply Area) – Big 3 versus Second Tier retailers

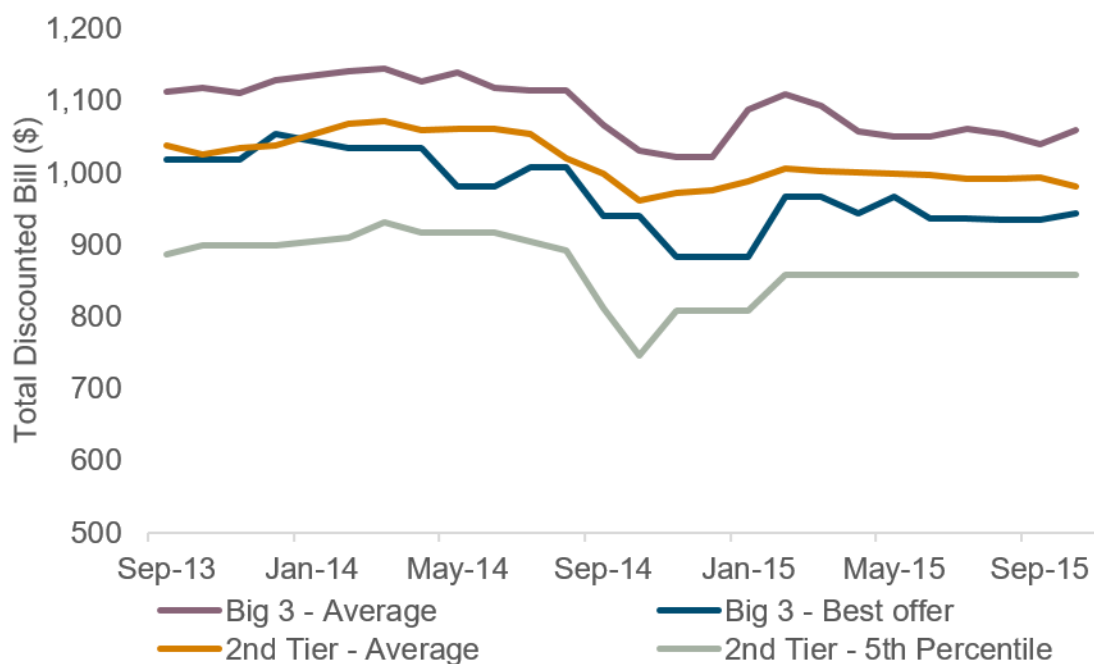


Figure C.17 Range of bills for representative retailer customer in Victoria (Jemena Supply Area) – Market and standing offers

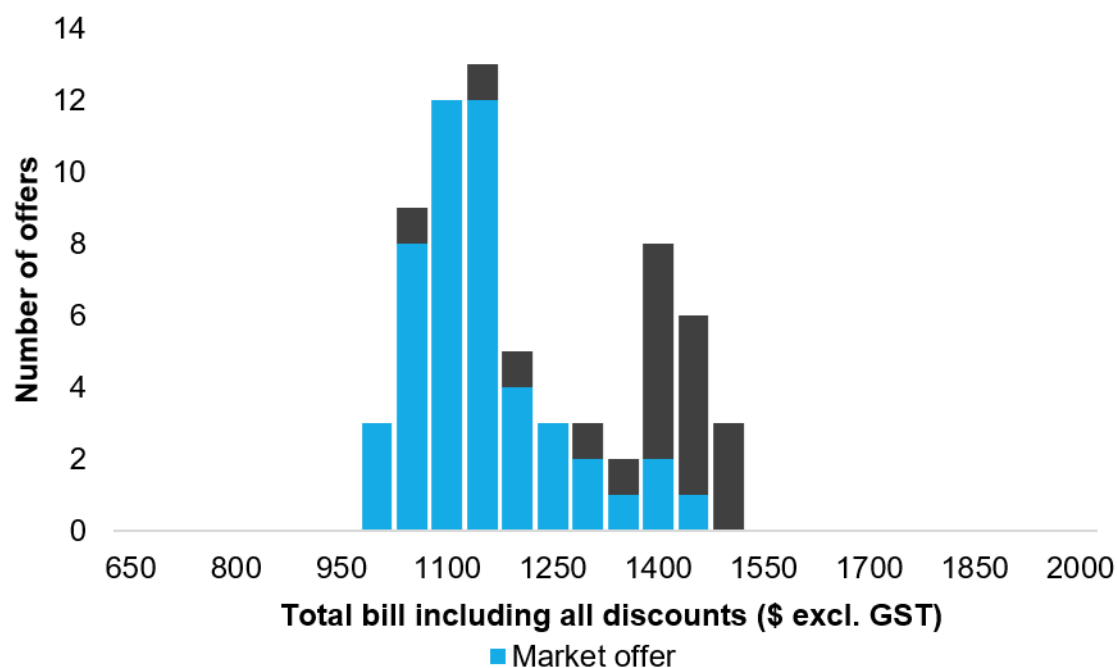


Figure C.18 Range of bills for representative retailer customer in Victoria (Jemena Supply Area) – Market and standing offers

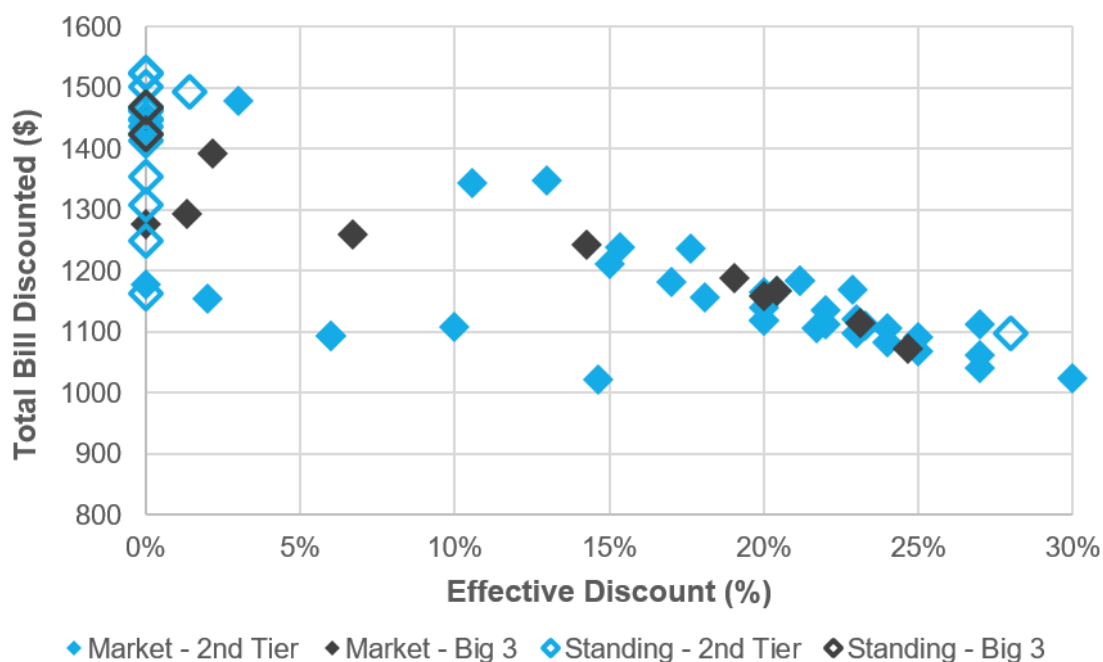


Figure C.19 Changes in bills over time (Jemena Supply Area) – Big 3 versus Second Tier retailers

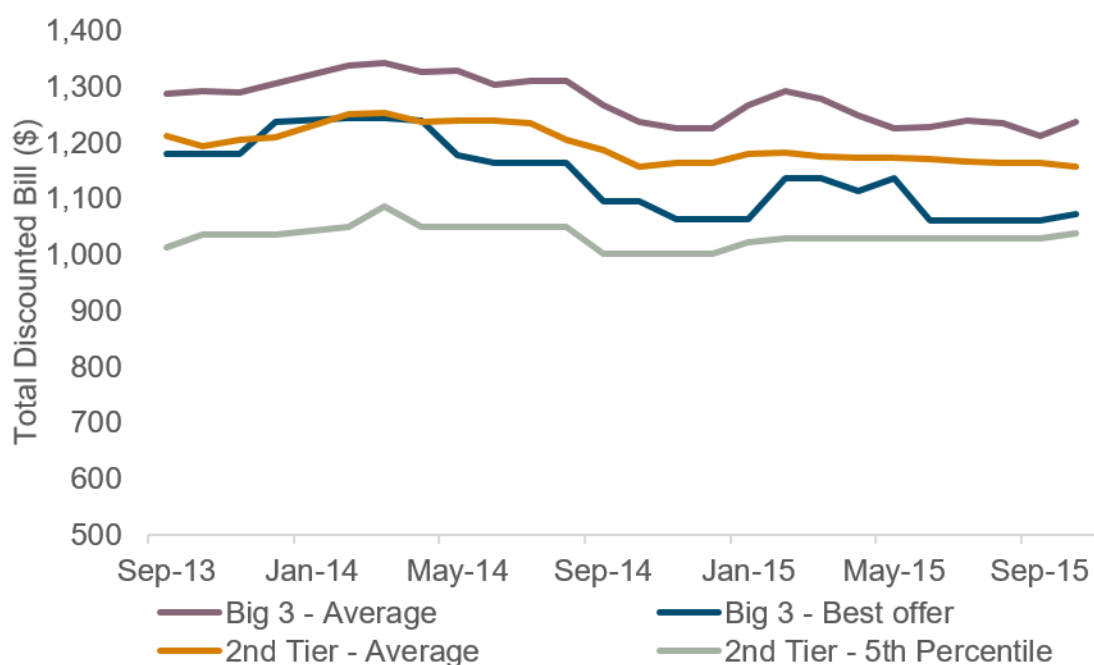


Figure C.20 Range of bills for representative retailer customer in Victoria (United Energy Supply Area) – Market and standing offers

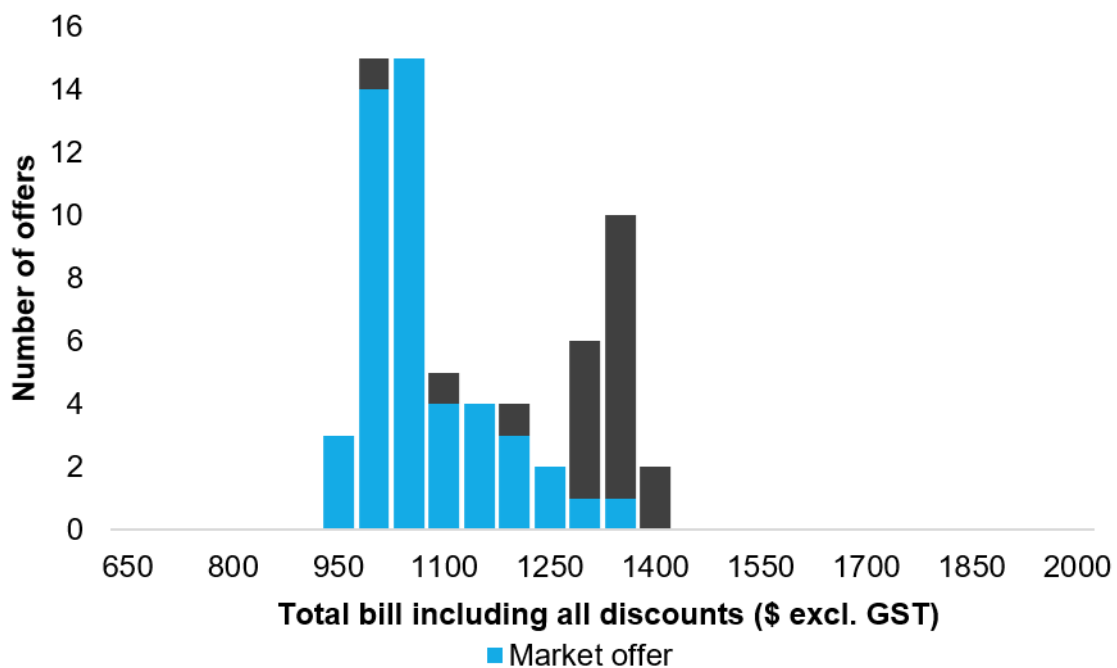


Figure C.21 Range of bills for representative retailer customer in Victoria (United Energy Supply Area) – Market and standing offers

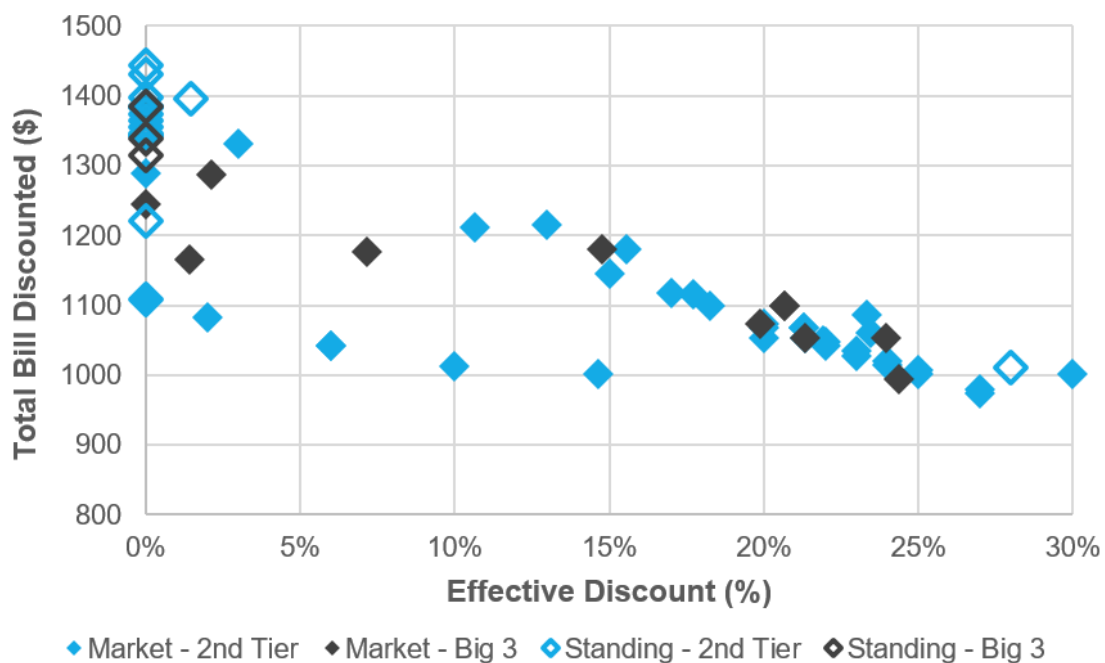


Figure C.22 Changes in bills over time (United Energy Supply Area) – Big 3 versus Second Tier retailers

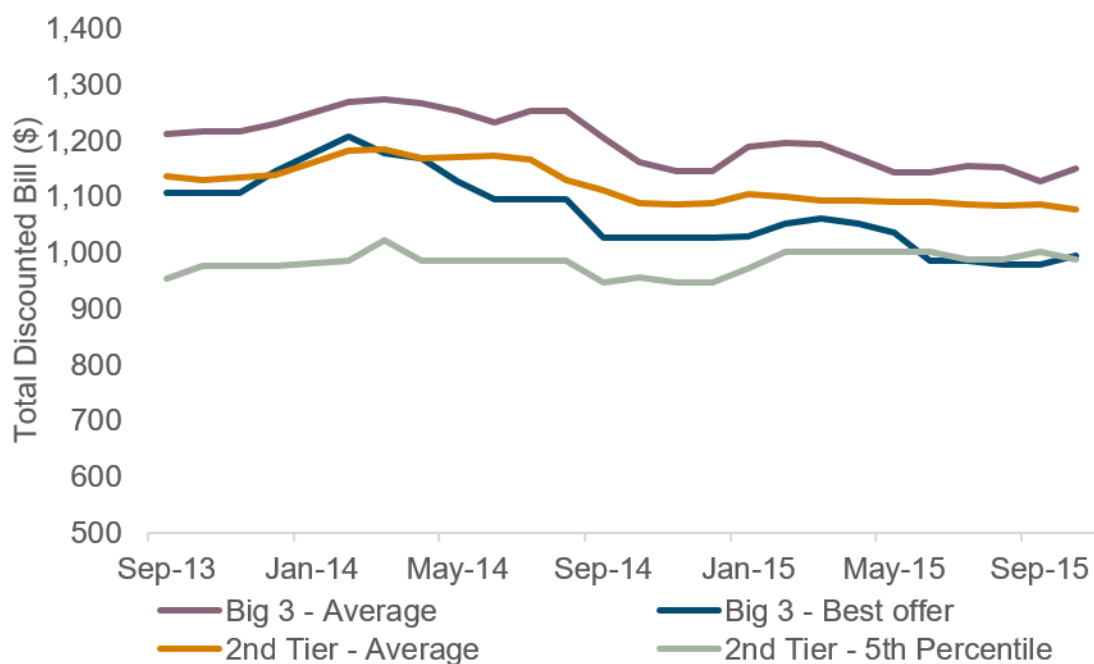


Figure C.23 Range of bills for representative retailer customer in Victoria (Powercor Supply Area) – Market and standing offers

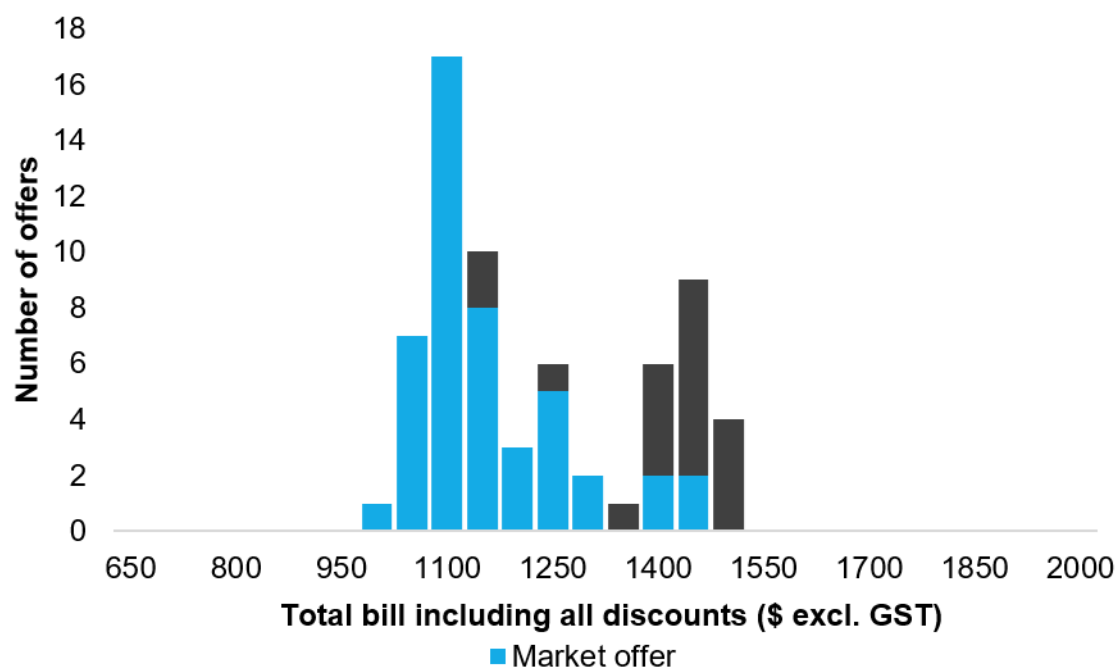


Figure C.24 Range of bills for representative retailer customer in Victoria (Powercor Supply Area) – Market and standing offers

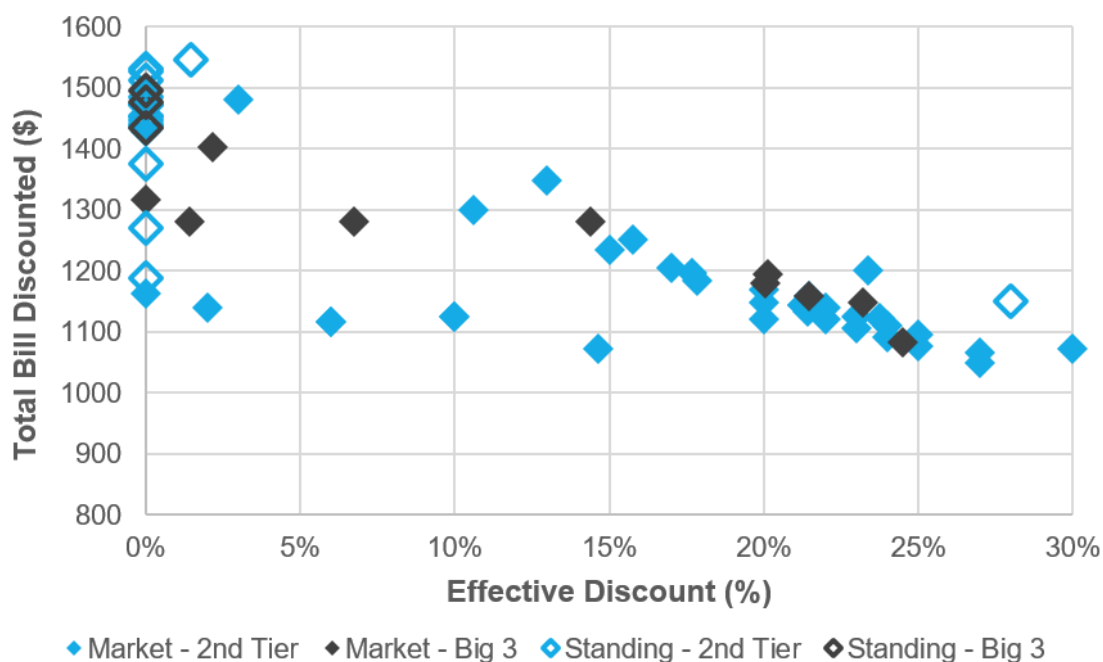


Figure C.25 Changes in bills over time (Powercor Supply Area) – Big 3 versus Second Tier retailers

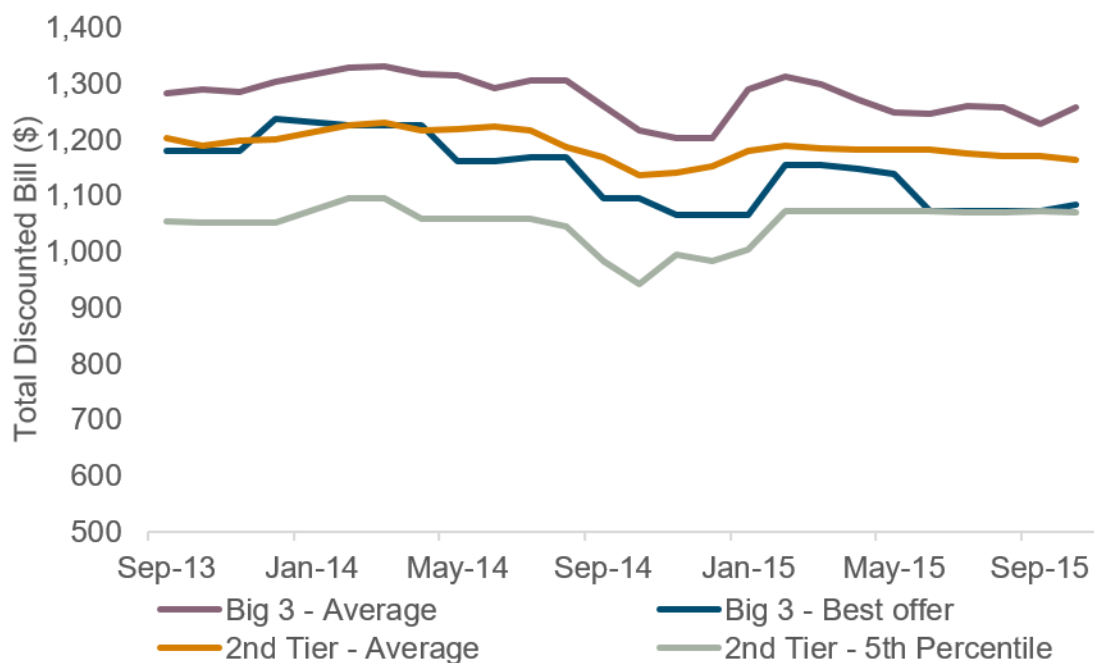


Figure C.26 Range of bills for representative retailer customer in Victoria (AusNet Services Supply Area) – Market and standing offers

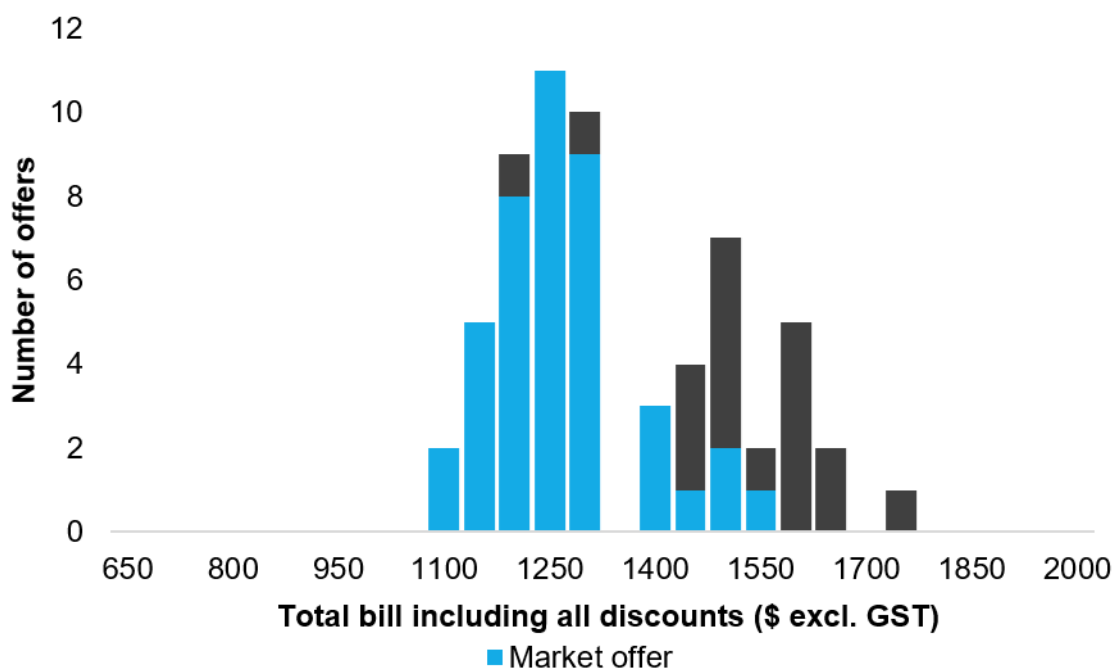


Figure C.27 Range of bills for representative retailer customer in Victoria (AusNet Services Supply Area) – Market and standing offers

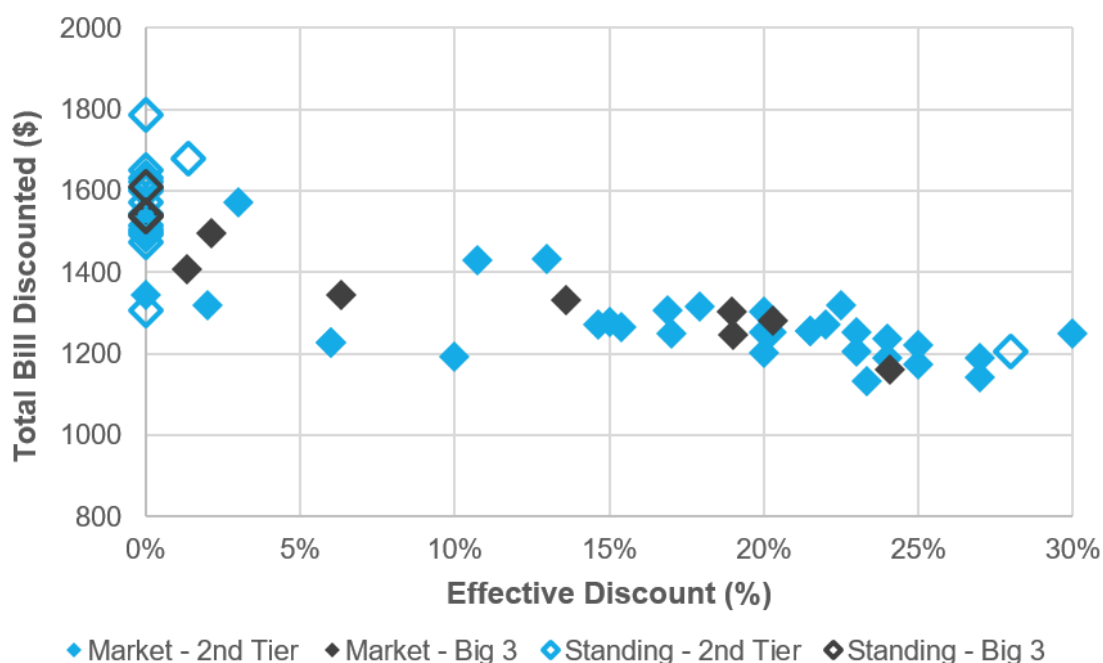
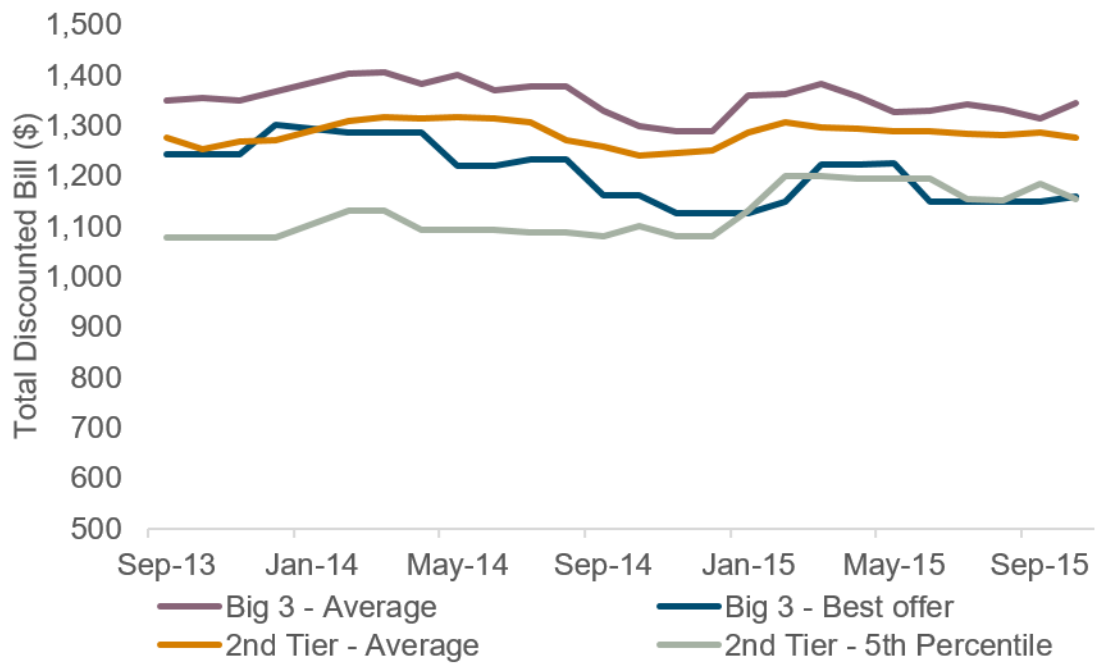


Figure C.28 **Changes in bills over time (AusNet Services Supply Area) – Big 3 versus Second Tier retailers**



C.5 South Australia

Table C.17 South Australia: Electricity

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Market characteristics	Number of small customers	As at end of previous calendar year	0.84m	0.85m	0.85m	AEMC analysis, AEMO data
	Number of retail brands / businesses	As at end of previous calendar year	13 / 13	15 / 13	18 / 15	AEMC analysis, AEMO data
Customer activity	Small customers on market offers	As at end of previous calendar year	82%	83%	85%	AER retail statistics
	Residential customers aware of retailer choice	As at date of consumer survey	92%	93%	96%	AEMC consumer research, 2014-2016
	Business customers aware of retailer choice	As at date of consumer survey	92%	98%	96%	AEMC consumer research, 2014-2016
	Residential customers investigating switching in last 12 months	As at date of consumer survey	30%	25%	26%	AEMC consumer research, 2014-2016
	Business customers investigating switching in last 12 months	As at date of consumer survey	37%	39%	36%	AEMC consumer research, 2014-2016
	Average switching rate in last calendar year	Average over previous calendar year	20%	16%	15%	AEMC analysis, AEMO data
Customer outcomes	Residential customers satisfied with level of choice	As at date of consumer survey	56%	59%	65%	AEMC consumer research, 2014-2016

Category	Measure	Period	2014 review	2015 review	2016 review	Source
	Business customers satisfied with level of choice	As at date of consumer survey	52%	57%	66%	AEMC consumer research, 2014-2016
	Residential customers satisfied with retailer	As at date of consumer survey	66%	68%	75%	AEMC consumer research, 2014-2016
	Business customers satisfied with retailer	As at date of consumer survey	68%	66%	73%	AEMC consumer research, 2014-2016
	Customer complaints to Ombudsman (per 10,000 customers)	Total over previous financial year	163	99	69	AEMC analysis, the Energy & Water Ombudsman SA data
	Customer complaints to retailers (per 10,000 customers)	Total over previous financial year	458	687	787	AEMC analysis, AER data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Easy	Neither difficult nor easy	Neither difficult nor easy	AEMC energy retailer survey, 2014-2016
	Median rating from retailer survey - Expansion	As at date of retailer survey	Neither difficult nor easy	Neither difficult nor easy	Neither difficult nor easy	AEMC Energy Retailer Survey, 2014-2016
Independent rivalry	Market share of Big 3	As at end of previous calendar year	82%	80%	79%	AEMC analysis, AEMO and AER data
	Market share of non-big 3	As at end of previous calendar year	18%	20%	21%	AEMC analysis, AEMO and AER data

Category	Measure	Period	2014 review	2015 review	2016 review	Source
	Market concentration (HHI)	As at end of previous calendar year	3,259	3,121	3,015	AEMC analysis, AEMO data
Competitive retail prices*	Range of bill outcomes - SA Power Networks	As at end-February	N/A	\$1491 - \$1888	\$1401 - \$1965	AEMC analysis, EnergyMadeEasy website

* Based on flat tariff offers as at 27 February 2016, without GreenPower, for a representative customer consumption of 5000kWh annually. 2015 based on a representative customer consumption of 5000kWh annually.

Table C.18 South Australia: Gas

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Market characteristics	Number of customers ('000)	As at end of previous calendar year	425	432	439	AEMC analysis, AEMO data
	Number of retail brands / businesses	As at end of previous calendar year	5 / 5	5 / 5	5 / 5	AEMC analysis, AEMO data
Customer activity	Small customers on market offers	As at end of previous calendar year	82%	83%	84%	AER retail statistics
	Average switching rate in last calendar year	Average over previous calendar year	17%	15%	13%	AEMC analysis, AEMO data
	Residential customers aware of retailer choice	As at date of consumer survey	89%	90%	92%	AEMC consumer research, 2014-2016
Customer	Residential customers satisfied	As at date of consumer	64%	69%	73%	AEMC consumer

Category	Measure	Period	2014 review	2015 review	2016 review	Source
outcomes	with retailer	survey				research, 2014-2016
	Customer complaints to Ombudsman (per 10,000 customers)	Total over previous financial year	49	38	32	AEMC analysis, the Energy & Water Ombudsman SA data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Neither difficult nor easy	Neither difficult nor easy to easy	Neither difficult nor easy to easy	AEMC energy retailer survey, 2014-2016
	Median rating from retailer survey - Expansion	As at date of retailer survey	Neither difficult nor easy	Neither difficult nor easy to easy	Neither difficult nor easy to easy	AEMC energy retailer survey, 2014-2016
Independent rivalry	Market share of Big 3	As at end of previous calendar year	92%	90%	88%	AEMC analysis, AER data
	Market share of non-big 3	As at end of previous calendar year	8%	10%	12%	AEMC analysis, AER data
	Market concentration (HHI)	As at end of previous calendar year	3,478	3,269	3,175	AEMC analysis, AER data

Table C.19 South Australia: Electricity Offers

	Offers	Retailers
All flat rate standing offers	23	17
All flat rate market offers	49	16
• Fixed terms/benefit periods		
- Ongoing with benefit period	16	7
- No contract term	15	8
- 1 year	3	2
- 2 years	15	5
- 3 years	3	2
• Features		
- Conditional discounts	37	14
- Guaranteed discounts	1	1
- No discounts	14	7
• Effective discount rate range – all offers		
Maximum 22%, large cluster between 3% and 12% per cent		
Other Incentives and offers (market and standing)	Offers	Retailers
price	14	5
non-price	15	5
Time of use offers	6	1
Fixed vs. non-fixed rate market offers	Fixed	Non-fixed
Number of offers	2	50

Note: Available to a representative residential customer in South Australia with annual consumption of 5,000 kWh, as at 27 February 2016.

Table C.20 South Australia: Gas Offers

	Offers	Retailers
All standing offers	9	4
All market offers	24	3
• Fixed terms/benefit periods		
- Ongoing with benefit period	18	3
- No contract term	5	1
- 2 years	1	1
Discount Conditional - off bill	1	1
Discount Unconditional - fixed	1	1
Discount Conditional – off usage	18	3
• Average nominal discount rate		
10% (off bill); 50% (fixed); 12% (off usage)		
Fixed vs non-fixed rate market offer	Non-fixed	Fixed
Number of offers	23	1

Note: Available to residential customers as at 23-28 February 2016.

Figure C.29 Derivative turnover and liquidity ratio in SA

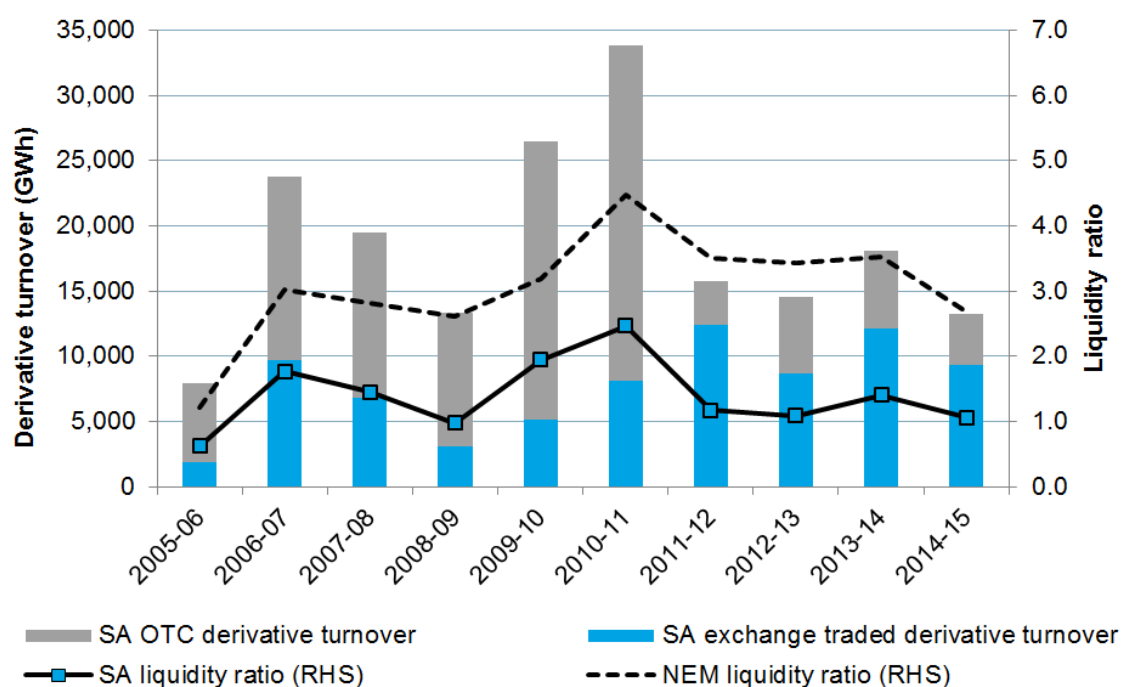


Figure C.30 Range of bills for representative residential customer in South Australia (SAPN Supply Area) – Market and standing offers

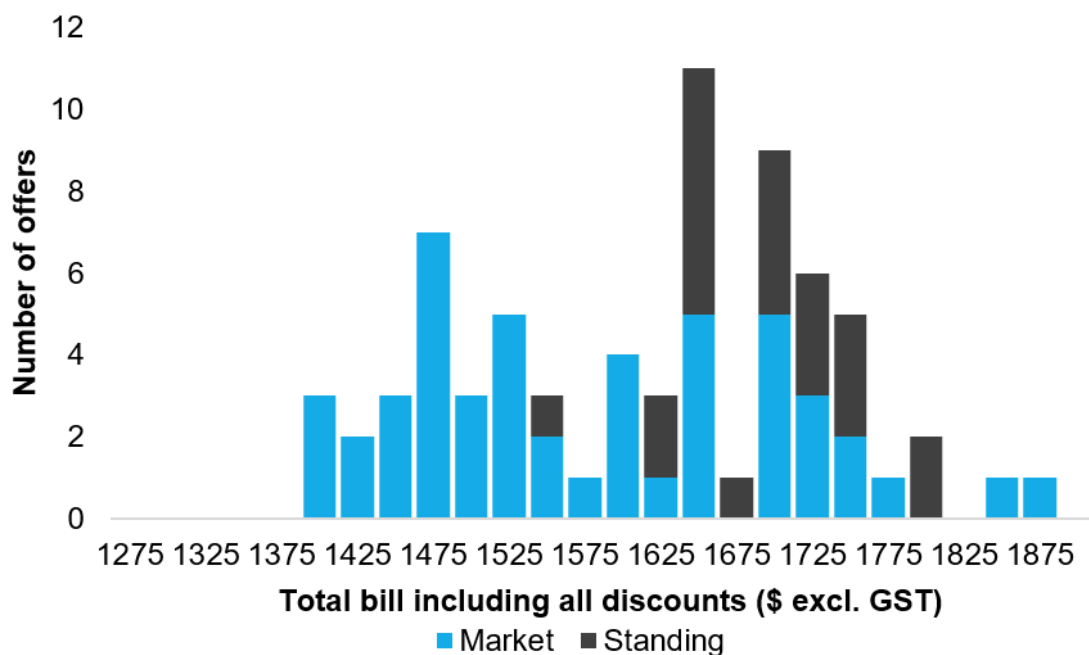
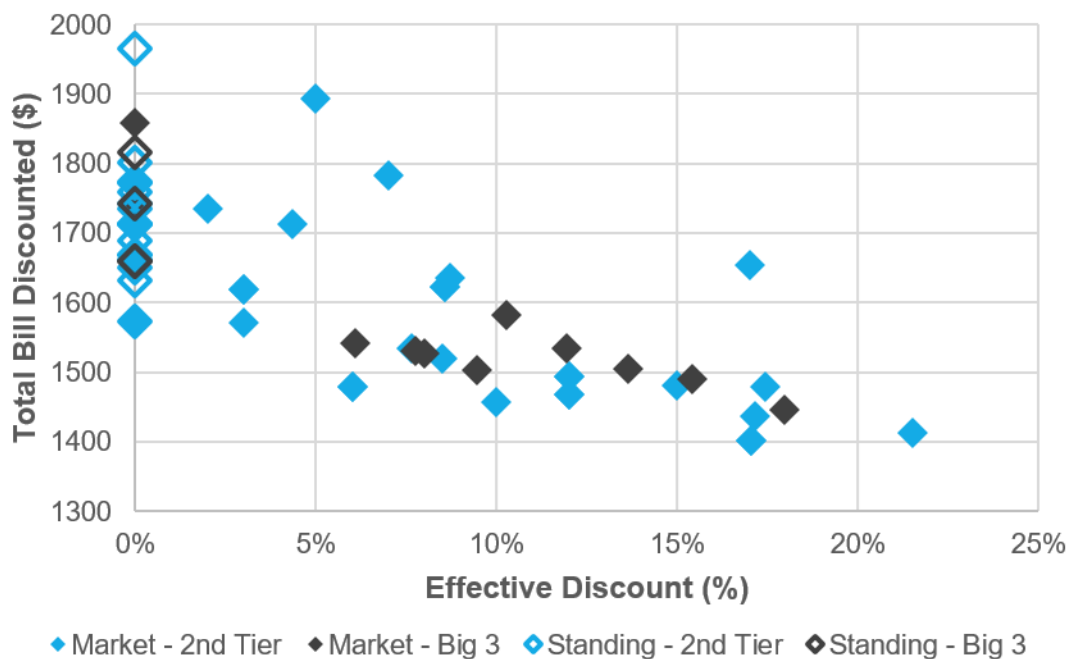


Figure C.31 Bill outcome versus effective discount for a representative residential customer in South Australia (SAPN supply area)



C.6 Tasmania

Table C.21 Tasmania: Electricity

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Market characteristics	Number of small customers ('000)	As at end of previous calendar year		273	276	AEMC analysis, AEMO data
	Number of retail brands / businesses	As at end of previous calendar year	2 / 2	2 / 2	2 / 2	AEMC analysis, AEMO data
Customer activity	Small customers on market offers	As at end of previous calendar year	13%	12%	12%	AER retail statistics
	Residential customers aware of retailer choice	As at date of consumer survey	N/A	16%	13%	AEMC consumer research, 2014-2016
	Business customers aware of retailer choice	As at date of consumer survey	N/A	16%	24%	AEMC consumer research, 2014-2016
	Average switching rate in last calendar year	Average over previous calendar year	N/A	0.1%	0.1%	AEMC analysis, AEMO data
Customer outcomes	Residential customers satisfied with level of choice	As at date of consumer survey	N/A	23%	22%	AEMC consumer research, 2014-2016
	Business customers satisfied with level of choice	As at date of consumer survey	N/A	10%	15%	AEMC consumer research, 2014-2016
	Residential customers satisfied with retailer	As at date of consumer survey	N/A	60%	65%	AEMC consumer research, 2014-2016
	Business customers satisfied	As at date of consumer	N/A	40%	48%	AEMC consumer

Category	Measure	Period	2014 review	2015 review	2016 review	Source
	with retailer	survey				research, 2014-2016
	Customer complaints to Ombudsman (per 10,000 customers)	Total over previous financial year	15	15	9	AEMC analysis, the Energy Ombudsman of Tasmania data
	Customer complaints to retailers (per 10,000 customers)	Total over previous financial year	18	162	297	AEMC analysis, AER data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Very Difficult	Difficult	Difficult	AEMC energy retailer survey, 2014-2016
	Median rating from retailer survey - Expansion	As at date of retailer survey	Very Difficult	Difficult	Difficult	AEMC Energy Retailer Survey, 2014-2016
Independent rivalry	Market share of Big 3	As at end of previous calendar year	100%	99.96%	99.86%	AEMC analysis, AEMO and AER data
	Market share of non-big 3	As at end of previous calendar year	0%	0.04%	0.14%	AEMC analysis, AEMO and AER data
	Market concentration (HHI)	As at end of previous calendar year	N/A	9,991	9,972	AEMC analysis, AEMO data

Table C.22 Tasmania: Gas

Category	Measure	Period	2014 review	2015 review	2016 review	Source
Market characteristics	Number of customers ('000)	Previous financial year	10.0	10.2	10.9	Office of the Tasmanian Economic Regulator
	Number of retail brands / businesses	As at end of previous calendar year	2 / 2	2 / 2	2 / 2	AEMC analysis, AEMO data
Barriers to entry, exit and expansion	Median rating from retailer survey - Entry	As at date of retailer survey	Very difficult	Very difficult to difficult	Very difficult to difficult	AEMC energy retailer survey, 2014-2016
	Median rating from retailer survey - Expansion	As at date of retailer survey	Very difficult	Very difficult	Difficult	AEMC energy retailer survey, 2014-2016
Independent rivalry	Market share of Big 3	As at end of previous calendar year	40%	36%	35%	AEMC analysis, AER data
	Market share of non-big 3	As at end of previous calendar year	60%	64%	65%	AEMC analysis, AER data
	Market concentration (HHI)	As at end of previous calendar year	5,200	5,392	5,450	AEMC analysis, AER data

D Active retailer list

RETAILER	NEM	SE QLD	R QLD	VIC	NSW	ACT	SA	TAS								
1st Energy	NEW				NEW											
AGL																
ActewAGL																
Powerdirect																
Alinta					NEW											
Aurora																
Blue NRG							NEW									
Click																
Commander																
Dodo						NEW										
CovaU				NEW												
Diamond																
Energy Australia																
Ergon																
ERM																
GloBird Energy	NEW			NEW												
GoEnergy																
Lumo																
Red		NEW				NEW										
Mojo Power	NEW				NEW											
Momentum																
Next Business Energy	NEW			NEW	NEW											
Online Power & Gas	NEW			NEW												
Origin																
Pacific Hydro																
People Energy																
Pooled Energy	NEW				NEW											
Powershop																
Qenergy																
Sanctuary																
Simply																
SparQ	NEW			NEW												
Tas Gas Retail																
Urth Energy	NEW	NEW			NEW		NEW									
TOTAL BRANDS	33	14	13	2	1	2	25	10	26	8	4	3	18	5	2	2
TOTAL COMPANIES	29	12	11	2	1	2	22	9	22	6	4	3	15	5	2	2
NEW ENTRANTS	8		2				5		6	2			2			

	Common ownership
	Electricity brand
	Gas brand

E Abbreviations

ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
AEMA	Australian Energy Market Agreement
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AFMA	Australian Financial Markets Association
AGN	Australian Gas Network
ASX	Australian Securities Exchange
CME	Carbon and Energy Markets
COAG	Council of Australian Governments
DWGM	Declared Wholesale Gas Market
ECA	Energy Consumers Australia
ESC	Essential Services Commission
ESCOSA	Essential Services Commission of South Australia
EWOQ	Energy and Water Ombudsman Queensland
EWOSA	Energy and Water Ombudsman South Australia
EWOV	Energy and Water Ombudsman Victoria
HHI	Herfindahl–Hirschman Index
IPART	Independent Pricing & Regulatory tribunal
IT	Information Technology
LNG	Liquid Natural Gas
NECF	National Energy Customer Framework
NEM	National Electricity Market
OTC	Over The Counter
PPAs	Power Purchase Agreements
QPC	Queensland Productivity Commission

REES	Retailer Energy Efficiency Scheme
RoLR	Retailers of Last Resort
SAPN	South Australian Power Networks
STTM	Short Term Trading Market
UTP	Uniform Tariff Policy