

# Submission

ACCC's retail electricity  
supply and pricing inquiry





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## 1. Executive summary

AGL welcomes the opportunity to make a submission in response to the ACCC Issues Paper dated 31 May 2017 (**Issues Paper**). With 2,247,000 electricity accounts and with a large and diverse portfolio of electricity generation assets and technologies, AGL believes that it is well placed to address the issues raised by the ACCC. This submission sets out the issues that AGL, in its experience, believes are fundamental to understanding retail electricity pricing.

### 1.1. Volatile and increasing spot price

In reviewing the issues of electricity pricing, wholesale and retail costs, and competition in the retail electricity sector it is important to understand the consequences of the market design for the National Electricity Market (**NEM**). Government policy has been to provide for a compulsory energy-only spot market from which retailers must purchase all of the electricity consumed by their customers. The regulatory framework for the energy-only spot market provided for a price floor of -\$1000 per megawatt hour (**MWh**) and a price cap of \$14,000 per MWh. The spot price moves between the floor and cap in providing the clearing price for the market. In periods of tight supply and demand the price can reach the cap.

Spot prices have always been volatile for various reasons, including fluctuating demand (e.g., due to weather conditions), and disruptions to supply (such as planned and unplanned infrastructure outages), and fluctuating fuel prices. Over the last two years, underlying energy prices have also been increasing.

AGL believes that the most significant drivers of the recent increases in wholesale spot prices have been plant closures leading to a tight supply and demand balance, lack of investment in new generation because of regulatory and policy uncertainty, and the increasing cost of gas for gas fired generation.

### 1.2. Retailers manage the risks of volatility in the spot price

Electricity customers expect fixed and predictable prices. Retailers play the key role of managing the risk between the often-volatile spot price, and delivering on customer expectations of fixed and predictable retail prices. In performing this role, electricity retailers face very different and more complex challenges than those faced in most other retail sectors. In no other sector of the economy do retailers face the degree of volatility in wholesale prices that electricity retailers must manage. Electricity retailers have two key strategies for managing these risks: purchasing derivative and insurance contracts, and investing directly in generation.

Most of the established retailers, including AGL, Origin, Energy Australia, Red Energy, Simply Energy, Momentum and ERM manage wholesale risks by trading in contracts and by investing in generation.

When retailers invest in generation it is referred to as vertical integration. AGL has considered the question of whether vertical integration has contributed to increased wholesale electricity prices. The analysis refutes any suggestion that increased vertical integration has led to increased capacity withholding in the NEM. It demonstrates that vertical integration has placed downward pressure on wholesale electricity prices, concluding that vertically integrated retailers put 4 to 5 percentage points more generation capacity into the market.

### 1.3. Main cost components and retail margins

AGL agrees that the main cost components contributing to retail prices are: energy costs, network costs, costs of government schemes and retail costs. However, AGL submits that retail costs are not limited to the cost to serve (e.g., billing etc), acquisition and retention costs, and costs of complying with regulation. Significant unavoidable costs are also incurred by retailers in a number of centrally managed corporate functions. Along with increasing wholesale electricity costs, some of these other cost components have contributed to increasing costs faced by retailers, including the costs of complying with regulation and



government policies (e.g., the Federal Renewable Energy Target (**RET**) scheme). In addition, in the period between 2010 and 2014 some regions in the NEM experienced substantial increases in network charges.

AGL has carefully reviewed the recent report on the retail market released by the Grattan Institute and cautions against a simplistic analysis of retail prices and costs to assess margins or profitability. Retail margins are complex to calculate. Any attempts to construct a standardised comparison of retail margins or profitability across the industry are likely to be very challenging and risk being misleading due to the likely differences between retailers as to how costs and risks are managed, characterised, quantified and allocated.

Further, AGL submits that it is not possible to meaningfully attempt to determine margins or profitability on a distribution region or customer sub-class basis. AGL manages its wholesale and retail businesses on a NEM-wide and broad customer class basis in order to achieve cost efficiencies in the long term interests of its customers.

#### **1.4. Retail electricity market is highly competitive**

The retail electricity market is highly competitive. As at June 2016 there were 29 retailers participating in the NEM. The Australian Energy Market Commission (**AEMC**) estimates that concentration levels have improved by around 20% since 2010. From 2015 to 2016 alone there were 15 new entrants into the retail market and smaller and new entrant retailers continue to grow their market shares. Vertical integration has not had a negative impact on competition, with the AEMC finding that the retail electricity markets with the highest levels of vertical integration are the most competitive.

Because retailers operate in a highly competitive market, the way in which they price their product to consumers is market driven. Customers compare the offers of competing retailers and switch in significant numbers. In Victoria, New South Wales, South Australia and South-East Queensland, the rate of customer switching is between 15% and 29%.

The history of price regulation has also had a significant effect on how retailers compete with each other. Under price regulation, relevant state regulators would set maximum retail prices with the intention that retailers could then compete through discounting off that maximum price. This discounting practice has continued post de-regulation and is customer-driven with retailers competing vigorously through discounts off their published prices. Alternative ways of selling electricity that do not rely on a headline discount have had relatively poor uptake from customers in AGL's experience.

The retail electricity market is increasingly dynamic with retailers competing in innovation and energy services. Retailers are using new and emerging technology to offer customers products and services that enable them to control how they use and source electricity. For example, through the installation of products that allow customers to generate and store their own electricity, and digital tools that enable them to monitor and control their electricity usage in real time. Retailers are also competing on non-price contract features, such as in relation to green credentials.

AGL is committed to delivering consumers what they want. AGL routinely undertakes market research and develops its strategies in response to evolving consumer preferences. AGL understands that customers want pricing transparency, simplicity, control and value for money and has taken a number of steps to improve customers' experiences in this area. This includes simplifying tariff structures and creating tools for customers to view their billed usage on a disaggregated basis.

#### **1.5. Importance of providing access to affordable energy to consumers**

Finally, AGL understands that access to affordable energy is essential for consumers, particularly for vulnerable consumers. AGL has taken a number of initiatives to assist vulnerable consumers in this period of rising prices including creating programs to identify and support financially vulnerable customers through discounts, debt relief, affordable payment plans, protected supply, and financial counselling. AGL has been working with community partners in all states on the creation and implementation of these initiatives.



## 2. About AGL

AGL is an energy company listed on the Australian Securities Exchange. It has a range of retail and wholesale electricity and gas interests, and has developed a new energy business that provides solar PVs, batteries and related services to customers.

### 2.1. AGL's retail electricity business

AGL serves retail electricity customers in New South Wales, Victoria, South Australia and South-East Queensland. AGL's retail electricity business operates in some of the world's most competitive retail energy markets. This drives AGL to offer innovative and dynamic service offerings to its customers.

AGL's retail electricity customer accounts, as at December 2016, is set out in Table 1.

**Table 1: AGL retail electricity customer accounts, as at December 2016**

State	Customer accounts
NSW	811,000
VIC	637,000
QLD	398,000
SA	401,000
<b>Total</b>	<b>2,247,000</b>

AGL operates its retail electricity business as a single, integrated national business unit.

AGL's position as a significant retailer (including being a local area retailer and retailer of last resort in some regions) means that an unreliable electricity supply or uncertain costs of supply are not in its interests. AGL is a customer-focussed business and is conscious of the need to supply affordable and reliable electricity to its customers.

AGL continually seeks to develop and offer our customers market-competitive products and services that best meet our customers' varied needs. Some of AGL's market-leading innovations are set out further below in section 8.1.

### 2.2. AGL's wholesale electricity business

AGL's wholesale business is responsible for developing, operating, maintaining, dispatching and contracting AGL's power generation assets. AGL has a diverse power generation portfolio including base, peaking and intermediate generation plants, spread across traditional thermal generation (gas and coal) as well as renewable sources (including hydro, wind, solar, landfill gas and biogas).

Significant generation assets (100MW capacity or greater) in which AGL holds an interest are summarised in Table 2 below:

**Table 2: AGL's significant generation assets**

Asset	Fuel Type	Capacity	Location
Bayswater	Coal	2,640 MW	New South Wales
Loy Yang A	Coal	2,210 MW	Victoria
Liddell	Coal	2,000 MW	New South Wales
Torrens Island	Gas	1,280 MW	South Australia



Asset	Fuel Type	Capacity	Location
Somerton	Gas	150 MW	Victoria
Yabulu	Gas	117 MW	Queensland
Nyngan	Solar	102 MW	New South Wales
Macarthur	Wind	420 MW	Victoria
Hallett	Wind	351 MW	South Australia
Kiewa	Hydro	391 MW	Victoria
Dartmouth	Hydro	180 MW	Victoria
Eildon	Hydro	134 MW	Victoria

AGL's retail electricity and wholesale/generation businesses are vertically integrated. This allows AGL to support its retail operations by providing AGL with a natural hedge against variations in spot power prices in different regions. An overview of how retailers operate in the wholesale electricity market is set out at sections 3.1 and 4, while the beneficial impacts of vertical integration on electricity prices are considered further in section 5.

AGL manages its wholesale electricity business and its retail electricity business as separate profit centres. References in this submission to retail or wholesale matters reflect this distinction.

### 3. Buying electricity in the National Electricity Market spot market

#### 3.1. Understanding the spot market

The NEM was set up as a compulsory wholesale spot market for electricity generated in Australia (excluding Western Australia and the Northern Territory). This means that generators must sell their electricity production and retailers (including vertically integrated retailers, such as AGL) must source all of their electricity needs through the NEM at the prevailing spot market price.

The spot market price is set via a bidding process managed by the Australian Energy Market Operator (**AEMO**). Generators participating in the NEM make bids to supply quantities of electricity at different prices for periods of time. AEMO then dispatches electricity based on the bids received. AEMO selects the cheapest bids first (subject to any power system constraints) and then selects progressively more expensive bids until enough electricity can be dispatched to meet demand every 5 minutes. The highest bid price needed to meet demand during that 5 minute period becomes the uniform dispatch price for that period.

The spot price ultimately paid by retailers to generators is the average dispatch price over 30 minutes. Separate spot prices are determined for each of the five NEM regions (QLD, NSW, SA, VIC and TAS). All generators dispatched to supply electricity in the relevant region are paid this price, regardless of what they bid. NEM prices are currently subject to a cap of \$14,000 per MWh and a floor of -\$1000 per MWh.

The reason such wide pricing outcomes are available in the NEM is due to its original design – it was deliberately set up (in the 1990s) to provide clear signals to investors:

- to add capacity to the market in response to higher spot prices; or
- to remove it from the market (mothball) in response to prices below operating costs.



In this way, the market was intended to operate to avoid under or over-supply of capacity. This was in part to address the government's concern that poor investment decisions had led to over-capacity in the supply of electricity in the 1980s.

The NEM was expected to be volatile but the expectation was that sophisticated forward markets would form to mitigate the unusually large commodity price risks faced by generators and retailers. Speculators and market-makers were also expected to add to the volume and the liquidity of forward contract markets. The futures market (also known as the derivatives market) forms part of the wholesale market for electricity and is discussed further below in section 4.2 below.

In addition to the electricity spot price, the spot market is also used to determine the prices for ancillary services including charges for frequency control ancillary services (**FCAS**) that ensure the safe, secure and reliable transmission of electricity to customers. FCAS prices are determined in conjunction with the electricity spot price and are also volatile. However, no liquid forward market has developed for these charges as they are much lower than energy costs. This exposes retailers to sudden variations in FCAS costs.

### **3.2. Spot prices are volatile and have become higher**

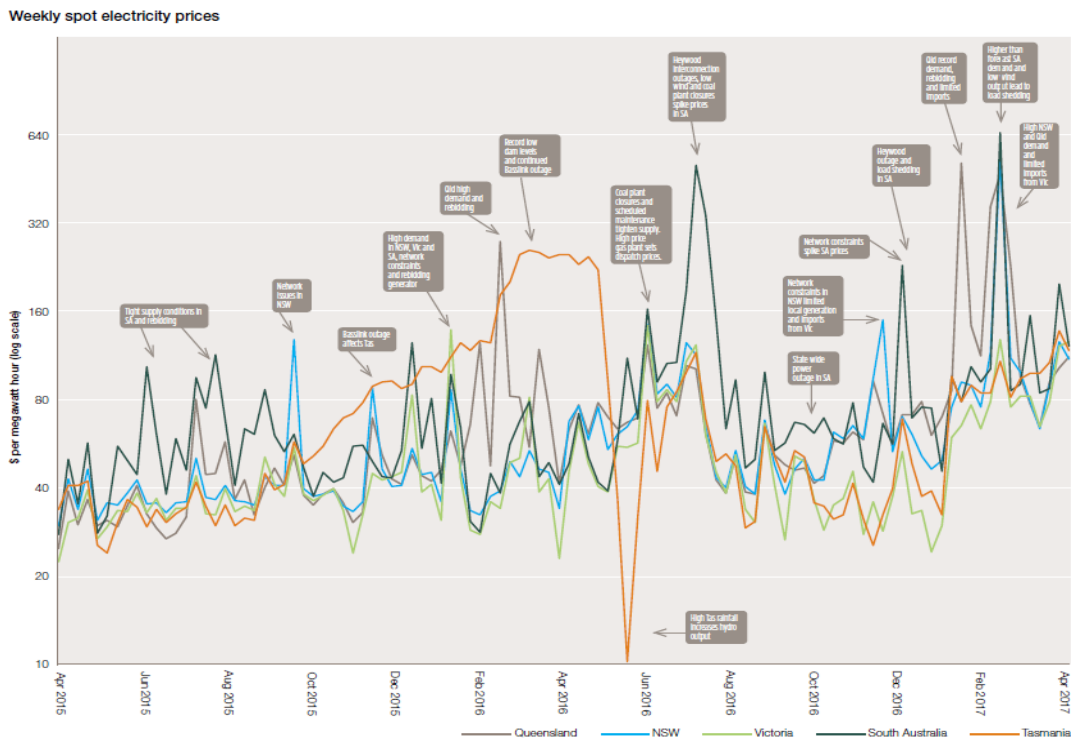
Spot market prices are influenced by a complex range of factors which reflect demand and supply across the different NEM regions. These factors can cause spot prices to vary significantly. They include:

- fluctuating demand resulting from, for example, weather conditions such as heat waves or cold periods;
- infrastructure issues, including planned and unplanned generator outages, interconnector outages and transmission network constraints;
- the unpredictability and intermittency of some renewable sources of generation;
- fluctuating generation input prices, such as the impact of increased gas prices on gas fired power generation;
- contraction of supply as a result of plant closures;
- lack of investment in new sources of generation; and
- the contract position or level of vertical integration of generators – merchant generators (ie generators with no retail business) will seek to recover their costs from high spot market prices when they are uncontracted (ie long to the spot market) while generators that are contracted or vertically integrated will run to defend their position, thereby moderating spot prices (see further section 5.1 below).

Spot market prices in the NEM always have the potential to be highly volatile due to the underlying NEM market structure. Over the past two years spot market prices have been steadily increasing (as shown in Figure 1, which was prepared by the Australian Energy Regulator (**AER**)).



**Figure 1: Weekly spot prices in the NEM – April 2015 to April 2017<sup>1</sup>**



There are two key reasons for this, including:

- the reduction of generation capacity and therefore the tightening of demand and supply in the NEM (when there is less supply, spot prices will be higher, and there may even be shortfalls in times of peak demand such as seen in SA and NSW earlier this year); and
- increases in generation fuel costs (gas but also black coal) and potential shortages of key fuel sources (primarily gas) (when input prices increase, spot prices will be higher).

Further details on these are set out below.

### 3.3. Tightening of the demand/supply balance in the NEM

The NEM was designed to encourage optimal investment in efficient and reliable generation. However, despite the increasingly high spot market price signals, demand and supply conditions are tightening in the NEM. The reasons for this include:

- the withdrawal of existing generation capacity, primarily baseload generation, in part due to the increased proportion of intermittent and/or unpredictable generation capacity (eg solar and wind generation) with the impact of wind generation on overnight prices being a particularly difficult issue for baseload generators to manage; and

<sup>1</sup> AER, “State of the Energy Market Report”, May 2017, page 53.

- insufficient investment in new baseload generation capacity, due to the unavailability of a key fuel source (gas) to underwrite new baseload generation and the uncertain investment climate.

#### **Withdrawal of capacity and replacement with intermittent generation**

Since 2011, more generation capacity has been withdrawn than has been added due to the supply conditions in the market. This has caused many non-renewable generators to make the decision to close generation plants. Approximately 92% of the generation capacity that has been added to the NEM over the last five years is renewable capacity,<sup>2</sup> with renewable sources now accounting for 24% of registered capacity.<sup>3</sup>

The supply conditions arose because, initially, demand for electricity declined (from 2009) which led to oversupply in the wholesale market and put downward pressure on spot and futures market prices. The oversupply was exacerbated by the Renewable Energy Target (**RET**) scheme (see further section 6.4 below) which encouraged investment in renewable generation, and put further downward pressure on wholesale prices from 2011 to 2014. Wind generation has driven low (and sometimes negative) overnight prices, with the result that baseload generators have been paying to be dispatched overnight, as they are unable to reduce their generation below minimum generation levels. This, in combination with low underlying pool prices, led to the withdrawal of significant baseload capacity. With this withdrawal, wholesale prices started to increase from 2015.

Figure 2 (prepared by the AER) summarises planned and completed withdrawals of capacity since 2011. These are all synchronous generation plants.

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<sup>2</sup> AER, “State of the Energy Market Report”, May 2017, page 37.

<sup>3</sup> AER, “State of the Energy Market Report”, May 2017, page 30.

**Figure 2: Generation withdrawals since 2011/12<sup>4</sup>**

YEAR	POWER STATION	REGION	GENERATION TECHNOLOGY	CAPACITY (MW)	STATUS
<b>WITHDRAWN</b>					
2011-12	Swanbank B	Qld	CCGT	480	Decommissioned progressively between April 2010 and May 2012
2012-13	Munmorah	NSW	Coal	600	Retired
2012-13	Tarong	Qld	Coal	700	Closed 2012 to 2014
2012-13	Collinsville	Qld	Coal	180	Retired
2014-15	Monwell, Brix	Vic	Coal	205	Retired
2014-15	Wallerawang C	NSW	Coal	1000	Retired
2014-15	Redbank	NSW	Coal	144	Retired
2014-15	Pelican Point	SA	CCGT	249	Half capacity withdrawn. Announced return to full capacity in June quarter 2017
2014-15	Swanbank E	Qld	CCGT	385	Placed into cold storage. Expected to return December 2018
2015-16	Northern	SA	Coal	540	Retired
2015-16	Playford B	SA	Coal	200	Retired
2015-16	Anglesea	Vic	Coal	150	Retired
2016-17	Hazelwood	Vic	Coal	1600	Retired
<b>ANNOUNCED WITHDRAWAL</b>					
2017	Smithfield	NSW	Gas	171	Retirement
2017	Tamar Valley	Tas	CCGT	208	Mothballing
2021	Mackay	Qld	CCGT	34	Retirement
2022	Daandine	Qld	CCGT	33	Retirement
2022	Liddell	NSW	Coal	2000	Retirement

CCGT, combined cycle gas turbine; MW, megawatts; OCGT, open cycle gas turbine.

Sources: company announcements; AEMO, Electricity statement of opportunities (various years).

The fairly recent withdrawals of the large capacity Northern power station in South Australia and the Hazelwood power station in Victoria have had a particularly significant impact on recent spot and futures market prices, to the extent that AEMO is now predicting possible supply shortfalls in South Australia, Victoria and New South Wales in the next two to ten years, which could result in load shedding.<sup>5</sup>

These supply shortfalls are the result of the increasing proportion of intermittent generation (such as solar and wind) not only prompting the withdrawal of baseload, but being unable to replace the supply security provided by the baseload generation that has been withdrawn. The increased reliance on intermittent generation means that there is an increased risk of there being a supply shortfall when intermittent generation is not generating due to environmental conditions. This is particularly the case in South Australia, Victoria and New South Wales.<sup>6</sup>

The combination of the decreased reserve capacity in the NEM (being the available capacity over and above the capacity to meet peak demand) and therefore the increased reliance on renewable sources has contributed to an increase in spot price volatility.

Further, because operators cannot predict when intermittent generation will generate they generally do not sell financial hedges off intermittent generation. Consequently, increased reliance on intermittent

<sup>4</sup> AER, "State of the Energy Market Report", May 2017, page 40.

<sup>5</sup> AEMO, "Energy Adequacy Assessment Projections", November 2016 and June 2017; AEMO, "Electricity Statement of Opportunities", August 2016.

<sup>6</sup> <https://www.energycouncil.com.au/analysis/reserve-plant-margins-how-firm-are-they/>

generation has also led to tighter forward market conditions because intermittent generators do not generally sell firm hedge products to retail market participants. This is explained further in section 4.2 below.

#### **Inadequate investment in new baseload capacity**

Despite the current market signals (in the form of increasing spot and forward prices), there has not been adequate new investment in baseload generation in the NEM.

As the construction of new or expanded generation capacity involves substantial time, capital costs and risk, the private sector is unlikely to invest unless it has sufficient certainty that it will cover its investment costs and make a reasonable return. Three main sources of uncertainty dampen private investment in baseload generation in the current environment:

- first, uncertainty around government policies, in particular concerning carbon emissions;
- second, uncertainty about the possible intervention by State and Federal governments in new generation sources; and
- third, unavailability of a key fuel source (gas) to underwrite new baseload generation (see section 3.4 below).

As noted by the AEMC and the AER:

*“...without clear, national, coordinated policy objectives and credible mechanisms that reinforce one another, both businesses and consumers find it difficult to invest – which undermines the reliability of supply.”<sup>7</sup>*

#### **3.4. Tight domestic gas market impacts electricity prices**

Gas fired generation became increasingly important in Australia over the last 20 years and by 2015, provided around 20% of the installed generation capacity in the NEM. Rising gas prices have curtailed recent investment in gas fired generation but open cycle gas turbines (OCGT) and combined cycle gas turbines (CCGT) are dispatchable generation with fast response times and remain fundamental sources of supply to meet peak and intermediate demands.

In March 2017, AEMO reported that a shortage of domestic gas supply could result in insufficient gas to meet the projected demand for gas powered generation in the NEM by summer 2018 – 2019, particularly in South Australia, New South Wales and Victoria.<sup>8</sup>

The shortage of domestic gas supply on the east coast of Australia is largely attributable to:

- a tripling of demand due to the increase in gas demand from the LNG projects;
- the low oil price, which is resulting in declining investment in gas exploration and lower production forecasts for domestic gas, with LNG projects having contracted a fixed volume of that gas; and
- moratoria and regulatory restrictions, which are affecting onshore gas exploration and development.

The tight gas market affects the wholesale electricity market by:

- putting upward pressure on spot market prices through increased input (gas) costs;

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<sup>7</sup> AER, “State of the Energy Market Report”, May 2017, page 42.

<sup>8</sup> AER, “State of the Energy Market Report”, May 2017, page 41.

- discouraging investment in new gas fired generation (this has implications both for the spot market and the forward market); and
- changing the market structure of generation plant in the NEM as the proportion of gas-fired power generation has decreased over time, and some plants have been mothballed.<sup>9</sup>

Mothballed gas-fired plant also increase the risks associated with new baseload investment because they can return to the market relatively quickly (compared to developing a new power plant), thus destroying the investment case for new power plants.

The Australian Competition and Consumer Commission (ACCC) recently found that domestic gas extraction (CSG) moratoria needed to be lifted (to increase the flow of gas), gas transmission pipeline access arrangements needed to change, and further investigation of domestic gas joint marketing arrangements was also warranted.<sup>10</sup>

## 4. Understanding the role of retailers in the NEM

### 4.1. Retailers play a vital role in managing spot market risks for customers

There is a fundamental difference between the role of an electricity retailer and retailers of most other goods and services purchased by consumers. In response to consumer needs, electricity retailers provide fixed price contracts into the future, but face fluctuating costs for obtaining the electricity sold under those contracts. Electricity retailers therefore face the asymmetric risk of selling electricity on a fixed forward basis when there can be significant and unexpected changes in electricity spot and future prices. The unique risks that electricity retailers must manage as a result include:

- **Retail price risk:** standard retail prices can only be adjusted once every 6 months<sup>11</sup> on a forward looking basis. This means that electricity retailers must set their prices on the basis of forecasts of the electricity demanded by customers as well as future electricity spot prices. While retailers can effectively adjust their prices downward (through the mechanism of discounting), they have difficulty increasing their prices within a 6 month period.
- **NEM price risk:** as described above in section 3.1 above, all market participants retailing electricity are compelled to source their electricity through the NEM, and the NEM spot price can vary significantly on a half hourly basis. Because electricity cannot yet (to a meaningful degree) be stored, retailers cannot generally manage this price risk by buying electricity when it is cheap, and stockpiling it for later use when prices are high. Retailers also face pricing risk as a result of the uncertainty around regulatory policies and schemes which impact on their wholesale costs, such as the RET scheme. Retailers can hedge a proportion of their customer load, depending on their risk appetite, to manage this price risk (see further section 4.2 below).
- **Volume risk:** electricity retailers are able to make general predictions about likely changes in consumer consumption patterns (for example, between milder and more extreme weather seasons). However, it is impossible for retailers to know exactly how much electricity their customers will consume on any given day. Further, there are events in the market (eg natural churn in and out, and RoLR events) that can significantly impact actual customer consumption. This means that retailers are unable to precisely predict how much wholesale electricity they will

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<sup>9</sup> AER, "State of the Energy Market Report", May 2017, pages 29 and 67.

<sup>10</sup> ACCC, "Inquiry into the east coast gas market", April 2017, page 20.

<sup>11</sup> National Energy Retail Law, section 23(5).

be responsible for paying on the spot market in any given period in respect of their customers' consumption, which varies significantly depending on market conditions.

- **Credit risk:** all electricity retailers have to settle consumption with AEMO and wear the risk that the consumer does not pay for either the electricity they consumed or the network charges. This is exacerbated by the relationship with distribution companies, whereby a retailer is not always able to manage any losses arising from continued customer consumption with ongoing non-payment, and yet the retailer is exposed to paying the network costs to the distributor regardless of not being able to recover these costs from the customer.

The risks faced by electricity retailers are significant, and it is appropriate that electricity retailers receive an appropriate return on the risks they face. When demand and supply conditions in the wholesale electricity market become tighter, the risks for retailers increase and become more costly to manage.

#### 4.2. Strategies for managing spot market risk are imperfect and costly

Every retailer will take a different approach to risk management – they will have a different appetite for spot risk, and a different approach to managing it. The two key strategies that retailers can use to manage spot market risks are:

- **Financial hedges:** Purchasing financial derivative and insurance contracts to “hedge” their exposure to the spot price, for which retailers are willing to pay for certainty in order to avoid the substantial losses that could occur if they are exposed to high spot prices in the future (financial derivatives trading).
- **Physical hedges:** Integrating generation and retailing activities, either through the acquisition or creation of physical generation assets or the acquisition of rights to the operation and wholesale proceeds of generators' outputs. This creates a natural form of physical hedging of the pricing risk, and is often referred to as vertical integration.

A retailer's wholesale cost is, therefore, essentially the combination of its residual spot exposure (after hedging), plus its costs incurred to hedge its customer load (including the costs of the actual hedges and any related trading costs). That cost of hedging may include forward contracts such as caps or swaps and, for a vertically integrated retailer, the costs of the physical hedges. Every retailer will choose to cover its load differently and will therefore incur different costs in doing so.

Hedging strategies are discussed in more detail below.

#### Financial derivatives trading

Because retailers do not want to face a significant risk that wholesale prices will be higher than they forecast at the time of setting their retail prices, retailers can choose to hedge a proportion of their estimated load (and the proportion hedged will depend on the retailer's particular risk appetite). Hedges have a number of forms. The most common hedges used by retailers are:

- **Base-load swaps:** these manage for average energy use by the retailer agreeing to pay for a specified MW of electricity for all times of the day at a set price that must be paid by retailer regardless of the spot price in the relevant period.
- **Peaking swap:** similar to a base-load swap, but applying only during a specific time of the day and on specific days, for example, between 7am and 10pm on working days.
- **Flat caps:** manage for volatility by effectively providing an insurance product to the retailer if the price goes beyond a set point, limiting the retailer's exposure to high prices above that set point (eg \$300/MWh). A premium is paid for this option (ie the retailer pays for the option whether it is triggered or not).

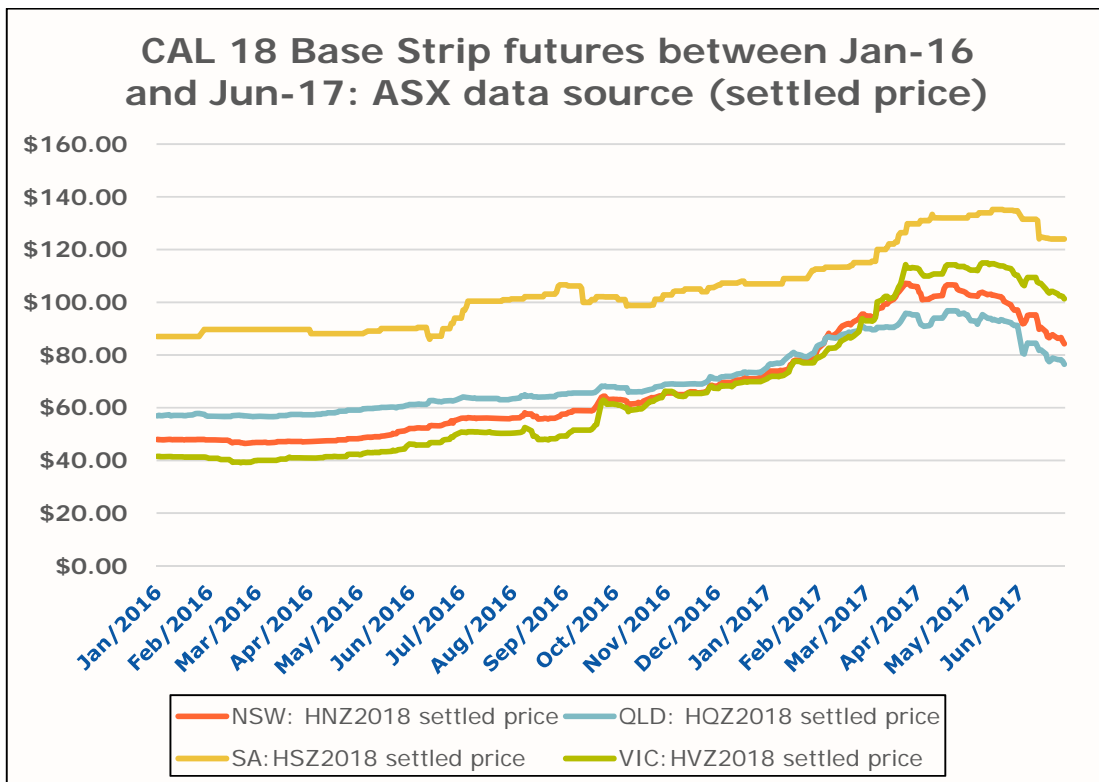
- **Peaking caps:** similar to a flat cap, but can only be called on during specific times of the day and on specific days, for example, between 7am and 10pm on working days.

There is also a range of “exotic” contracts that are used by electricity retailers to manage risk. These exotic hedges can be more expensive than common hedges described above given the increased risk protection that they provide electricity retailers. These exotic hedges include:

- **Weather contingent options:** effectively provide an insurance product to the retailer that can only be used if a particular weather outcome occurs, such as above average temperatures over a given period. A premium is paid for this option (ie the retailer pays for the option whether it is triggered or not).
- **Load following contracts:** a fixed price hedging product that follows the usage of the electricity retailer, thereby removing all risk from the retailer.

The price of financial derivative contracts has increased materially as shown in Figure 3, due to the expected uplift of spot prices (as shown above in section 3.2). Figure 3 shows how the price of flat forward electricity contracts for the 2018 financial year has changed over the last 12 months in all regions. For example, a marked increase is notable in all regions since November 2016 when Engie announced the closure of Hazelwood power station, and therefore the market expected a decrease in supply of dispatchable power and consequently, availability of forward contracts. In recent months, future contract prices have reduced due to State Government announcements in Queensland and a supply response to the higher prices. However in May 2017, when retailers were setting their annual prices for NSW, SA and QLD, forward contract prices were at their peak.

**Figure 3: Changes to CY 2018 base futures, ASX**



Entering into financial derivatives is an imperfect way for retailers and generators to manage their respective spot market risks, and comes with its own risks, including:

- **Volume risk:** retailers are unable to completely hedge their spot price exposures through financial contracts because of the volume risk explained in section 4.1 above. Under a swap contract, retailers may:
  - under-hedge their spot market exposure (e.g. underestimate future consumption and peak/off-peak levels) and incur losses as a result of having to pay high spot prices; or
  - over-hedge their spot market exposure – the retailer’s load is less than the hedged volume, and the retailer is still paying the counterparty to the derivative contract, without having revenue from an end user to cover this cost;
- **Price risk:** the price of financial derivative contracts differs from the price forecasted by the retailer when setting annual tariffs;
- **Liquidity risk:** the availability of competitively priced derivatives contracts;
- **Margining risk:** certain financial derivative contracts involve risks of cash calls on short notice if the forward price moves against the retailer’s contracted position, which can cause significant cash-flow impacts; and
- **Credit risk:** a counterparty to a contract might be unable (e.g. due to insolvency) or unwilling to meet its payment obligations, particularly at times of extreme market conditions.

These risks are heightened during times of wholesale market volatility and tightened demand/supply balance.

In addition to the risks (and therefore costs) of hedging on the forward market, retailers will incur the costs of operating a trading team and meeting additional prudential and/or credit requirements to engage in financial derivatives trading.

### Vertical integration

Integrating generation and retailing activities is the second key way in which retailers seek to manage their spot market exposure by creating a “natural hedge” (or “physical derivative”) where retailers can offset their retail exposure to the spot price through their generation position. The natural hedge enables retailers to reduce their reliance on financial derivative contracts.

Because retailers face the volume risk of over-hedging or under-hedging, an additional benefit of vertical integration is that it can assist retailers to better manage this risk, which is difficult to mitigate through derivative contracts. An integrated retailer can avoid being under or over hedged by relying on any excess capacity in the event that its actual retail load exceeds its forecast.

While vertical integration can provide significant operating cost efficiencies for retailers, it is not capable of completely mitigating the wholesale risks and, in some situations, exacerbates those risks. For example:

- in periods of low demand, vertically integrated retailers may be generating at higher levels than they need to satisfy their retail obligations (for example to keep a minimum load on a thermal plant). However, vertically integrated retailers can also choose to buy from the pool if spot prices are lower than their short run marginal cost of generation.
- in periods of high demand, plant outages or fuel constraints, retailers may need to purchase more electricity from the spot market at very high prices to cover the load they had forecast to be covered by generation.



- depending on the location of generation assets, retailers may also face mismatches between the different regional spot market prices they receive for generation and pay for their retail supply.
- when retailers invest in generation they are also taking on the reliability risk of generation from their own plant, as well as the risk that the cost of generation from their own plant exceeds the prevailing spot market and contract prices during periods of changing supply and demand balances in the NEM.

Finally, investing in generation involves significant capital expenditure. While being vertically integrated can provide operating and management cost efficiencies, the investor is also taking on risk associated with significant sunk capital expenditure. During periods in which the supply-demand balance in the NEM is “long” to generation, the retailer investing in generation may fail to recover the capital costs of that investment.

Many retailers use vertical generation to a greater or lesser extent. Retailers that AGL is aware of that have some degree of vertical integration are:

- AGL;
- Origin Energy;
- EnergyAustralia;
- Engie, with its Simply Energy retail brand;
- Alinta;
- ERM Power;
- Meridian Energy, with its Powershop brand;
- Pacific Hydro;
- Snowy Hydro, with its Red Energy and Lumo Energy brands; and
- Hydro Tas (Momentum Energy).

## **5. Vertical integration moderates wholesale electricity prices**

### **5.1. Vertical integration increases generation output and moderates wholesale prices**

Vertical integration of electricity retail and generation assets has not contributed to the recent increase in wholesale electricity prices. Quite the opposite, vertical integration has a moderating effect on wholesale electricity prices (both spot market and forward contracts). This is due to the alignment of generation and retailing incentives so that generation is matched to demand at the lowest price in the NEM.

The incentives of generators and retailers naturally diverge when operating on a stand-alone basis – retailers and generators have differing views on long term contracts depending on whether they think the market is rising or falling. Generators who are not vertically integrated (ie who do not also have a retail business) and who are therefore long to the spot market have an incentive to withhold capacity to try to increase spot prices and maximise their profits. This is particularly the case when wholesale supply and demand conditions tighten, as standalone generators have a greater ability and incentive to withhold generation capacity to try and raise the wholesale spot price.

Vertical integration changes and moderates this incentive. AGL remains of the view that vertically integrated retailers are incentivised to put *more* of their generation capacity into the market than if those generation assets were held on a stand-alone basis, because its generation will be operated in order to

defend that generator's retail position (so that the retail position is not exposed to the spot electricity price). This increases generation output, which in turn moderates wholesale prices in two main ways:

- it facilitates more timely and efficient investment in new generation; and
- it results in increasing levels of generation output.

This alignment is further demonstrated by the fact that none of the generation that has been withdrawn since 2011/12 was vertically integrated with a retailer (in any meaningful way) as shown in Figure 2 in section 3.3 above.

Vertical integration has not negatively impacted forward market liquidity. There have been numerous vertical integration events since 2005-06 with the three big retailers increasing their share of installed capacity from almost nothing in 2004, to around 49% in 2015. This also includes direct investment in new generation. However, despite this increasing concentration of generation ownership by retailers, the liquidity of the forward market has not been affected. For example, the "gross" forward liquidity ratio for each year (calculated as total SFE and OTC volumes, divided by NEM demand) has generally been around or greater than 3 times NEM (physical) demand since 2006/07. AGL further notes that this needs to be considered in the context of increasing penetration of renewable generation that does not sell financial contracts, displacing generation that does sell contracts. This has driven a reduction in the liquidity that would have otherwise existed but for the displacement of synchronous generation.

## **5.2. Efficiencies resulting from vertical integration**

Vertical integration has positively impacted the reliability of existing generation in some cases. For example, AGL has sought to make additional investments in the power stations it has acquired in order to support its retail and forward market operations. AGL has invested an additional \$100 million in the Bayswater and Liddell power stations over the stated commitments of the previous owner, and these power stations have shown improved reliability. Commercial availability has improved, and duration of forced outages and amount of lost generation has decreased.<sup>12</sup>

Vertical integration also incentivises investment in generation because it reduces the risks associated with that investment. The fixed and sunk costs of investing in generation are very high. Any retail business has to source electricity for its customer base. A retailer will consider all options for doing this at the lowest risk and cost. Options are to buy from the pool (which is inherently risky due to the volatility), hedge using financial derivatives, or provide a source of power in the form of a generation plant or offtake rights. Vertical integration increases the confidence a generator has in making long term investments because it can assume that it will be able to sell some of the generation through its retail business.

## **6. The cost components of retail prices will vary significantly and are not easily comparable**

### **6.1. Retail cost components**

AGL agrees with the ACCC's Issues Paper that the following four broad cost categories generally contribute to retail electricity prices:

- energy costs;
- network costs;

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<sup>12</sup> AGL, "AGL Investor Day 2016: Presentation", 14 November 2016, pages 18-21.

- cost of government/environmental schemes; and
- retail costs.

However, the proportions of these cost categories in a retail bill vary significantly depending on the distribution area within each State, customer usage and type of offer that the customer is on (e.g. standing retail contract or a high discount market offer). These will also vary from year to year.

Different retailers are likely to have different approaches to how these costs are managed, categorised, quantified and allocated within their businesses. This means that it is very challenging to attempt a standardised comparison of margins or profitability across the industry on the basis of these cost categories.

At a high level, AGL broadly agrees with the AEMC proportions of what makes up a customer bill. However, AGL notes (and see further section 6.5) that there are a number retail costs in addition to cost to serve, cost to grow, and cost to comply with regulation.

## 6.2. Energy costs

As noted above in section 4.2 above, the wholesale energy cost incurred by retailers is a combination of the retailer's spot market exposure and hedging costs (including a market price for any physical hedging). The costs incurred by different retailers will differ depending on their strategies for managing pool price exposures. Retailers who have a limited appetite for risk will have a highly contracted retail position. While retailers prepared to risk greater exposure to pool prices will have a limited contract position. For the reasons explained above, retailers' wholesale energy costs have substantially increased over the past few years. This has been a key driver of recent increases in retail prices.

Estimating wholesale energy cost is particularly complex for vertically integrated retailers. This is because vertically integrated retailers can make strategic decisions about how much of their generation is sold into the wholesale market and how much is used as a natural hedge to support its retail customers. The cost of using generation as a "natural hedge" rather than selling it into the NEM represents an opportunity cost for the vertically integrated retailer. Different retailers may take different approaches to the way in which this opportunity cost is valued and allocated between the wholesale and retail arms of their business, depending on their operational strategies, management and accounting practices.

Taking a simplistic view of the wholesale cost of electricity across the industry materially misrepresents the actual retail margins earned by individual retailers. As an example, the Grattan report<sup>13</sup> assumed retailers know the future spot price of electricity at the time of setting their retail prices and added a flat adjustment to reflect hedging costs. This is factually unrealistic and unreasonable – no retailer knows with certainty what the spot price of electricity will be in the future. In relation to the hedging adjustment, its accuracy in any particular year depends on the accuracy of the retailer's electricity demand and cost forecasts and the retailer's individual hedging strategy (which as shown above may vary greatly depending on the individual circumstances of each retailer).

For completeness, in addition to electricity spot market and forward contract costs, this cost category includes prudential capital costs relating to financial guarantees to AEMO and margin requirements for futures contracts, NEM participation fees and ancillary services charges.

## 6.3. Network costs

Network costs comprise the prices that electricity distribution businesses charge retailers for the use of their electricity transmission and distribution network. These prices are regulated by the AER, and are

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<sup>13</sup> Grattan Institute, "Price Shock: Is the retail electricity market failing consumers?", March 2017.

based on a reasonable investment return on an estimate of the efficient costs of running the network. Network prices vary from state to state, and also within states depending on the network provider.

Increases in network costs have historically been a key driver of retail prices although this has eased in more recent years as regulated network pricing determinations reflected softened electricity demand and network upgrades were delayed.<sup>14</sup> However, the AEMC estimates that network prices will increase in the coming years in Queensland, New South Wales, the ACT, South Australia, the Northern Territory and Western Australia.<sup>15</sup>

In addition to network costs, this category also includes metering costs, which have been treated as an independent cost item since July 2016.

#### 6.4. Costs of government schemes

Retailers bear the costs of complying with federal and state government schemes, generally relating to environmental initiatives such as energy efficiency, or encouraging the use of renewable energy. These costs, which may not always be certain, vary depending on the scheme.

The RET scheme is one of the larger environmental schemes. It encompasses the Large-scale Renewable Energy Target (**LRET**) and the Small-scale Renewable Energy Scheme (**SRES**). The LRET requires liable entities to surrender an amount of Large-scale Generation Certificates (**LGCs**) equal to a percentage of their liable load, as determined by the Clean Energy Regulator. LGCs are created from large scale renewable energy generators such as wind and solar. The SRES works in a similar way except that Small-scale Technology Certificates (**STCs**) are created by small scale renewable energy systems like household solar panels and solar water heaters.

The prices of LGCs and STCs are determined by their availability, which depends on the amount of renewable generation in the NEM relative to the prevailing target, which rises annually. Prices for LGCs have tripled since 2014 as investment in renewable generation has not kept pace with the increasing RET target, creating a shortfall in LGC certificates.<sup>16</sup> There has also been a deficit of STCs in the market. Retailers that do not manage to procure sufficient certificates have to pay a penalty rate, which has effectively set a cap on the price of certificates.

Some State-based schemes, including the Victorian Energy Efficiency Scheme (**VEET**), also require liable entities to surrender certificates based on their electricity load according to a rate set annually by Ministerial Order. VEET certificates are created by energy efficiency activities. The New South Wales Energy Savings Scheme (**ESS**) works in a similar manner to the VEET scheme, but has a legislated target.

The RET and VEET schemes create uncertainty because the binding target for the adoption of renewable energy or energy efficiency solutions that the schemes are intended to achieve is not known in advance when retail tariffs are set and is subject to change. For example, the forecast Small-scale Technology Percentage (**STP**) under the SRES can vary significantly from the actual binding STPs – in 2013 the non-binding STP estimate was 7.94% but the actual binding STP was 19.7%.

This uncertainty impacts certificate production and market supply. The market for certificates under all of these schemes can also be illiquid in forward years, which makes hedging of future obligations difficult. This means that retailers are forced to buy on the spot market or in the limited forward market when offers are available. However, there is also a risk that certificates purchased in the forward market will not be delivered due to the credit risks associated with some of the many sellers, which have varying sizes and

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<sup>14</sup> AER, "State of the Energy Market Report", May 2017, page 133.

<sup>15</sup> AEMC, "2016 Residential Electricity Price Trends".

<sup>16</sup> AER, "State of the Energy Market Report", May 2017, page 34.

financial positions. These issues increase the costs and uncertainties for retailers from compliance with these schemes.

In addition, there are other State-based energy efficiency schemes that retailers have to comply with, such as the Retailer Energy Efficiency Scheme (**REES**) in South Australia and the Energy Efficiency Improvement Scheme (**EEIS**) in the Australian Capital Territory. These are not certificate based and therefore do not impose the same uncertainties as those described for the RET, VEET and ESS schemes, but nonetheless impose additional costs on retailers.

### **6.5. Retail costs**

Retail costs include all other costs associated with operating a retail electricity business. The nature of retail costs will vary depending on the scope and size of a retailer's operations. For example, given the highly-regulated nature of electricity supply in Australia, the costs of complying with multiple regulatory requirements across jurisdictions can be particularly high for national retailers such as AGL.

For most retailers, retail costs will usually comprise much more than just the costs of acquiring, retaining and servicing customers and complying with regulation, which are the three subsets of costs set out in the ACCC's Issues Paper. Depending on the retailer, the costs of operating a retail business may also include:

- personnel costs, including support functions such as IT, legal, internal audit, procurement etc;
- financial costs, including depreciation on technology and other assets, finance management costs, tax costs and insurance costs;
- board and investor costs, including investor and stakeholder relations costs, listing costs and other governance costs;
- property costs;
- costs associated with assisting special categories of customers, such as hardship customers and vulnerable customers and administration costs of concession schemes; and
- research and development costs.

In 2016, the operating expenses directly incurred by AGL's combined retail electricity and gas business were approximately \$435 million. In addition to these direct operating costs, AGL had a further \$225 million of centrally managed expenses.

It is quite possible that different retailers might take a different approach to the allocation of their own operational retail costs, in particular costs that are centrally managed. This means that it would be very difficult to undertake a reliable industry-wide comparison of retail costs.

### **6.6. The calculation of retail margins is complex at an industry level**

Retail margins are the difference between a retailer's revenue and its costs of supply. Retail margins are complex to calculate. Any attempts to construct a standardised comparison of retail margins or profitability across the industry are likely to be very challenging and risk being misleading.

The reasons for this include:

- it is highly unlikely that retailers will have a standard (or even similar) approach to managing, characterising, quantifying and allocating their total wholesale electricity costs and retail costs;
- each retailer will have a different risk strategy and company structure that affects its cost of purchasing wholesale electricity on the spot market or by hedging (including through physical hedging, which makes it even more difficult to make comparisons between vertically integrated retailers, and vertically integrated retailers and retailers who are not vertically integrated);

- given the recent tightening of the wholesale market, any estimation of wholesale costs based on historic or long run averages will be unlikely to be accurate; and
- margin comparisons based on an industry-wide “representative consumer”, with assumed electricity requirements and pricing, are unlikely to provide an accurate representation of any individual retailer’s true ‘average customer’ for two reasons:
  - first, the energy needs of individual customers within a retailer’s portfolio are likely to vary greatly which will skew a retailer’s “average customer demand”. Demand varies due to a number of factors, for example residential versus business customers, locality, and customer size, and
  - second, any comparisons based on published standard rates only are likely to be misleading given the vast majority of customers that are not being charged under standing offers, but on significantly discounted rates as discussed in section 7 below.

For these reasons, AGL agrees with the following comment from the AEMC about the need to exercise caution when considering retail margin studies:

*“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”.<sup>17</sup>*

## 7. Competition in the retail electricity market

### 7.1. The setting and marketing of retail products are driven by customer preferences and the competitive environment

AGL is a customer-focussed business, and we endeavour to provide customers with products and services that best meet their diverse wants and needs. Retailers compete for customers in a variety of ways, including on price in the form of discounts from published rates or other non-discount products (such as AGL’s “Free Month” campaign), and with incentive and loyalty programs.

The way in which retailers compete is also influenced by the regulatory framework that applies to supplying electricity to small customers. All retailers are required to have a standard retail contract product with standard and published prices. Regulation limits the frequency of and manner in which changes to standard retail prices can be made. This affects market products, because as noted in section 7.2 competition in pricing has generally been through discounting from published standard tariffs.

Competition from other retailers and the threat of customer switching is a key consideration for AGL when it sets its own retail prices, levels of discount and develops new product offerings. As shown below in section 7.3 below, customers compare the offers of competing retailers and switch in significant numbers. The vast majority of customers today are on discounted market products and AGL’s experience has been that discounted offers are preferable to consumers.

The proportion of AGL customers on discounted market contracts and the highest above the line discount offer in each state is summarised in tables 3 and 4 below:

**Table 3: Proportion of AGL customers on market contracts – May 2017**

[Table redacted for confidentiality]

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<sup>17</sup> AEMC, “2016 Retail Competition Review”, 30 June 2016, page 156.



**Table 4: Above the line discounts offered – May 2017**

State	Discount offered
NSW	Up to 20%
VIC	Up to 28%
SA	Up to 14%
10C06QLD	Up to 10%

### 7.2.Competition through discounting is a legacy of price regulation

The way in which retail prices are currently set and marketed to consumers is a direct consequence of market practices that evolved through the period of retail price regulation and deregulation. As the following table shows, retail prices were regulated in all states until fairly recently and remains in place only in the ACT and Tasmania.

**Table 5: The removal of price regulation**

State	Price de-regulation
NSW	1 July 2014
VIC	1 January 2009
SA	1 February 2013
QLD	1 July 2016

Under price regulation, the relevant state regulator would usually set a maximum retail price, with the intention that retailers would compete by discounting off this price. Discounting therefore developed as the main tool used to attract and retain customers.

While retailers are no longer required to comply with a maximum regulated price, they are still required to publish and maintain a “standing tariff” for small customers (also referred to as “standing offers”). The industry practice of discounting off maximum regulated rates during price regulation naturally transitioned into a practice of discounting off the standard published rates post de-regulation. In practice, most customers now enter into market contracts with retailers for a discount off their standard tariff.

AGL’s experience is that customers still view discounting as one of the main indicators of value for money. AGL is now focussing on designing new products that move away from discounts but highlight value for customers in a simpler way (such as the AGL Prepaid product discussed further in section 8.1 below).

### 7.3.The retail market is vigorously competitive

In its 2016 review of competition in the retail electricity market, the AEMC concluded that competition in the retail electricity market is effective in most jurisdictions in Australia and is delivering benefits for consumers. AGL agrees with the AEMC based on the following:

- **Dynamic competition:** retail competition in the retail electricity market in Australia is continuing to evolve and becoming more dynamic. From 2015 to 2016, the AEMC estimates that smaller retailers increased their retail market share by 33% in New South Wales and approximately 10% in each of Victoria, South Australia and Queensland.<sup>18</sup>
- **Market concentration has declined:** The highly competitive nature of the Australian retail electricity market is evident in its structure. The AEMC estimates that the retail electricity market has become progressively less concentrated since 2010.<sup>19</sup>
- **New entrants:** in most markets, new retailers have entered the market, smaller retailers are continuing to gain market share and market concentration has declined. From 2015 to 2016 alone, there were 15 new entrants into the retail electricity market in Australia.<sup>20</sup> The AEMC's surveys also indicated that a number of parties were considering entering the retail electricity market (13 parties) and the majority of existing retailers were considering expanding their operations (21 existing retailers);<sup>21</sup>
- **Low barriers to entry:** On the basis of the historical and contemplated entry and expansion, the AEMC has concluded that any barriers to entry and expansion in most retail markets in Australia may not be significant.<sup>22</sup>
- **Limited exit:** There has been very little exit of retailers in the market. However, retailers have not identified any material barriers to exit and the AEMC has not concluded that this lack of exit due to high barriers.<sup>23</sup>
- **Customer churn:** The rate at which customers switch retailers has remained consistently high over the last three years.<sup>24</sup> The AEMC has reported that around 90% of customers are aware that they can switch electricity retailers, and the most common reason cited for not investigating competing offers and switching, was satisfaction with their current retail plans. The relative value of a customer's energy spend to their household earnings may also impact on the level of switching. Of the customers that do investigate competing offers, 50% go on to switch retailers.<sup>25</sup>
- **Innovation:** The competitiveness of the retail electricity market has driven innovation in productions and services. This includes innovation concerning contract features, customer services and new technologies. Innovation in these areas means that customers are being offered a diverse range of products and services which better meet their needs. AGL's innovations are discussed further below in section 8.1 below; and
- **Customer satisfaction:** Customer satisfaction with retailers, including the quality of customer service and value for money is improving.<sup>26</sup>

As at June 2016, there were 29 retailers participating in the market and their shares of small customers in each market were as follows:

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<sup>18</sup> AEMC, "Retail Competition Review", 30 June 2016, page 93.

<sup>19</sup> AEMC, "Retail Competition Review", 30 June 2016, page 117, 122.

<sup>20</sup> AEMC, "Retail Competition Review", 30 June 2016, page 118 and 222.

<sup>21</sup> AEMC, "Retail Competition Review", 30 June 2016, page 104.

<sup>22</sup> AEMC, "Retail Competition Review", 30 June 2016, page 91.

<sup>23</sup> AEMC, "Retail Competition Review", 30 June 2016, page 105.

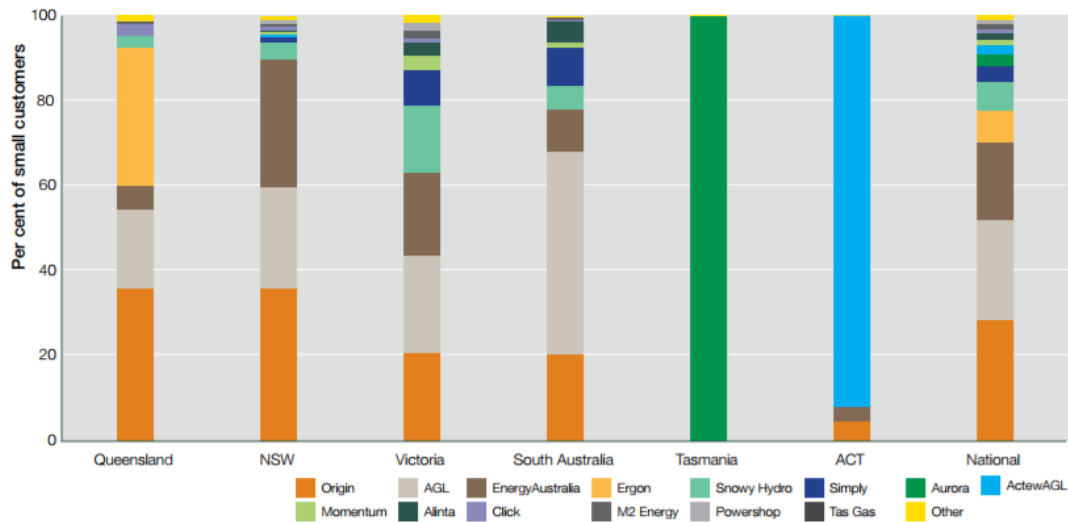
<sup>24</sup> AEMC, "Retail Competition Review", 30 June 2016.

<sup>25</sup> AEMC, "Retail Competition Review", 30 June 2016, pages 56 - 61.

<sup>26</sup> AEMC, "Retail Competition Review", 30 June 2016.



**Figure 5: Retail market shares of small customers, June 2016<sup>27</sup>**



#### 7.4. Retail competition is most effective in the markets with vertical integration

As a result of the inherent efficiencies of vertical integration, there has been a trend towards retailers investing in generation in the NEM and vice versa (see above section 4.2 above). This move towards vertical integration has not had any lessening effect on competition in the retail electricity market. On the contrary, the retail markets with the highest levels of vertical integration in the NEM (New South Wales, Victoria and South Australia) have been found by the AEMC to be the most competitive.<sup>28</sup> Smaller and more recent entrant retailers are competitive in these markets and market concentration has fallen significantly.

Vertical integration has not raised barriers to entry or expansion in the retail market. To the extent that there are some barriers in these markets, they do not include vertical integration. AEMC reports that the factors most frequently identified by retailers as creating barriers to entry and expansion include:

- the tightening of wholesale market conditions;
- costs associated with environmental policies; and
- other policy and regulatory risks.<sup>29</sup>

<sup>27</sup> AER, "State of the Energy Market Report", May 2017, page 139.

<sup>28</sup> AER, "State of the Energy Market Report", May 2017, pages 141 – 142; AEMC, "Retail Competition Review", 30 June 2016, section 10.

<sup>29</sup> AEMC, "Retail Competition Review", 30 June 2016, section 9.3.2.



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## 8. AGL's engagement with the market

### 8.1. Understanding and responding to consumer preferences

AGL is constantly seeking to understand evolving customer needs and preferences, and routinely commissions market research to inform how we can better serve our retail customers. Based on this research, AGL understands its retail customers are looking for:

- value for money;
- simplicity;
- certainty or control; and
- transparency.

AGL has responded to this research and has:

- made it easier for customers to understand retail offers and make informed choices about their retail electricity supply.
- progressively developed a product range and features that provide customers with choice that resonate with personal preference, value, and behaviour.
- adapted our products to reflect digital adoption and incentivise customers who embrace digital transactions.

#### **Simplifying products and helping customers make informed choices**

The retail market can be complex for customers. To reduce this complexity and make offers easier to understand and compare for customers, AGL supports the development of a comparator metric across retailers that would allow customers to compare different sorts of products. AGL is committed to having this metric in place by the end of the year and will work with regulators, retailers and community groups to help bring about this increased transparency for customers.

AGL is also helping customers make informed choices about their energy options by simplifying its product offerings through:

- simplified tariff consumption blocks;
- using whole numbers in tariffs rather than longer, fractional numbers;
- removing seasonal tariffs so that the same energy usage rates apply all year round;
- choosing to use an AGL simplified retail tariff rather than complex network tariffs; and
- investing in technological tools which will help us disaggregate customers' energy usage on their bills.

#### **Innovative product range and additional features**

With an expansive product range, we are making it simpler for customers to choose the right product for them by listening to their preferences and offering products and features that best suit them. AGL's options now include:

- guaranteed discount – for customers that seek certainty;
- direct debit discount – for customers that choose to set and forget their energy;
- pay on time discount – rewarding customers for paying their energy bills by the due date;
- double up reward – rewarding customers with multi-product discounts;



- online sign-up – rewarding customers with up-front rebates for using digital channels;
- free day – rewarding customers with whole day of free power;
- free month – rewarding customers with whole month of free power;
- pre-paid – a new product being trialled in Victoria, this product allows customers to make regular payments when they want and provides a credit in exchange for the payment (i.e. pay \$240 and receive \$80 bonus credit) (the plan provides alerts when usage is running low so the customer can “top up” in advance);
- fixed rates – providing certainty for energy rates for the whole contract term; and
- payment methods (Australia Post over the counter, BPAY, Direct Debit – Savings account, Direct Debit – Credit or Debit Card, PayPal).

Some of the additional benefits offered by AGL include:

- tools designed to enable a customer to monitor, plan and manage their electricity usage, such as “AGL Energy Online” (now “My Account”);
- tools designed to enhance customer service experience and ease of access to AGL services, including digital tools such as “My AGL IQ®”, AGL’s digital app and 24/7 customer service lines;
- features such as monthly billing, bill smoothing and self service meter read, to allow customers to have smaller, more accurate bills without relying on estimations (these features directly address customer issues with large irregular bills);
- empowering customer choices around offsetting their carbon emissions, by offering a GreenPower product that guarantees that renewable energy equivalent to a customer’s home’s energy usage is generated by accredited renewable energy generators, and the Future Forests program where customers can offset the emissions associated with their electricity usage for a flat \$1 per week;
- loyalty schemes such as the Flybuys program, which offers customers additional value for their energy spend in the likes of flybuys points (coalition points based program) that are awarded and can be utilised through flybuys for flights and instore purchases;
- membership of “AGL Rewards®” which provides customers with discounted services and other benefits from a variety of retailers, such as grocery stores, movie theatres, restaurants and travel companies; and
- bundling electricity and gas services, as in AGL’s experience, customers prefer the simplicity and additional discount of dealing with a single retailer for both fuels.

AGL allows existing customers to “product swap” onto any new generally available products in market, including those aimed at new customers via acquisition campaigns. This ensures all customers have access to the offer that suits them best.

### **Technological innovations**

New and emerging technologies are changing the nature of the retail electricity market. Retailers are now able to offer customers a range of energy products and services that extend beyond the simple supply of electricity. This has enabled customers to choose how their energy is sourced and used.

The most widespread example of this type of technology is the installation of solar PV systems which enable customers to consume their own electricity or sell it back into the grid. Examples of other emerging technologies include:



- advanced meters which enable time of use metering and provide customers with greater control over their energy use;
- the installation of small-scale wind turbines which generate electricity for customers to use or sell into the NEM in a similar manner to solar PV systems;
- battery storage which allows customers to either store self-generated electricity (through solar or wind) or draw electricity from the grid when it is cheaper and then use it later when it would be more expensive; and
- arrangements where customers can remotely control certain electricity consuming appliances in exchange for credits or reduced energy bills.

To compete more effectively in this space, AGL established a dedicated New Energy division in 2015 aimed at providing customers with access to innovative energy products using new and emerging technologies. AGL is currently trialling various innovative products, including:

- refined solar PV plans using systems owned and maintained by AGL;
- tailored plans for electric vehicles and corporate electric fleets;
- digital metering products and services; and
- the installation of batteries in residential homes to create “virtual power plants” for times of peak demand.

## **8.2. Initiatives to support vulnerable customers**

To allow the retail electricity market to work efficiently and competitively, AGL acknowledges that there must be a safety mechanism to support vulnerable members of the community. AGL has undertaken extensive consultation with community organisations around Australia to obtain feedback on the ways in which we can better serve vulnerable customers.

AGL has developed several initiatives to assist vulnerable customers, including:

- The “Staying Connected” program, which is AGL’s hardship program approved by the AER. This program is available to residential customers who are experiencing financial difficulties that make paying their electricity bills difficult. AGL has specially trained consultants to work with these customers to establish affordable payment plans and to provide assistance on government support and concessions. These customers are protected against disconnection and are exempted from further collection action.
- The “Affordability Initiative”, which involves a commitment of \$6.5 million by AGL over three years to support hardship customers through financial counselling in vulnerable communities, energy saving partnerships, debt relief and payment incentives and community funding. AGL is working with a number of community partners to roll out these initiatives.
- The “Fairer Way” package, which involves the introduction of tailored products for AGL’s most vulnerable customers. Features of these products include:
  - the abolishment of late fees, paper bill fees and over the counter payment fees for concession card and hardship program customers (this was previously introduced by AGL and was continued by the “Fairer Way” package);
  - high guaranteed discounts for certain vulnerable customers;
  - pro-actively approaching certain vulnerable customers and offering to move them off standard tariffs onto a contract that better suits their needs; and



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- applying an automatic discount to certain vulnerable customers who remain on standard tariffs.

Further information on the support AGL is giving to or developing for its vulnerable customers is set out in the Appendix to this submission.



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## Appendix – AGL’s support for vulnerable customers

### Staying Connected

Staying Connected is AGL’s national hardship program. It is available to our residential customers who are experiencing temporary or long-term financial difficulties that make paying their gas and/or electricity bills difficult. As required under regulation, the program has been approved by the AER (for National Energy Customer Framework jurisdictions) and the Essential Services Commission of Victoria (for Victoria).

Specially trained Staying Connected consultants work with customers experiencing financial hardship to establish a personal payment plan that takes into consideration the customer’s financial situation and what they can afford to pay. Customers actively participating in the Staying Connected program are protected against disconnection and are exempt from further collection action. AGL’s Staying Connected team also offers customers advice about government assistance and concessions that may be available, and can put customers in touch with other support services such as independent financial counselling. Staying Connected customers are also provided with simple energy saving tips.

### A Fairer Way

The ‘A Fairer Way’ package, announced in March 2017, involves the introduction of tailored products available to AGL’s most vulnerable consumers.

Under A Fairer Way:

- concession card and hardship program customers are not charged late fees;
- customers participating in AGL’s hardship program, Staying Connected, are being offered guaranteed (non-conditional) discounts;
- AGL will write to customers with a registered concession card who remain on a Standard Retail Contract, offering to assess their needs and move them to a better plan; and
- Victorian customers on a Standard Retail Contract who receive a government energy concession will also automatically receive a 15% discount off their electricity usage charges, applying from 5 March 2017.

This package recognises that vulnerable customers, who rely on affordable and secure energy supplies, are likely to be dealing with the full spectrum of cost of living pressures. These specially designed and targeted products are aimed at mitigating the potential for increased debt accrual to help prevent vulnerable customers from falling further behind. The package also seeks to encourage engagement with the competitive retail energy market by initiating contact and a conversation about the options available.

### Affordability Initiative

In December 2014, AGL launched its Affordability Initiative after consultation with community and consumer group leaders. Our key commitments are:

- improve the way we work with our customers;
- invest \$6.5 million over three years to support hardship customers;
- target early intervention to support vulnerable customers;
- support policies which enhance competition of offers;
- improve comparability and transparency;
- deliver clear customer choice;



- offer direct contact for financial counsellors and community workers; and
- provide easy to find assistance.

Under the Affordability Initiative and following consultation with community partners, AGL has allocated the funding as follows: \$1.2 million for financial counsellors, \$1.5 million Energy Saving Partnerships, \$3.3 million for debt relief and payment incentives and \$500,000 Switched-On-Communities funding.

#### **Financial Counselling investment**

This program involves the funding of new financial counsellor resources through our partners in each State – Kildonan (VIC), Wesley Mission (NSW), Uniting Communities (SA) and YFS (QLD) – and proactive referral of customers by frontline staff. We have also established a dedicated phone line and email to give financial counsellors direct access to customer service representatives so that matters can be resolved directly during the customer's financial counselling appointment.

AGL has allocated \$400,000 per year over 3 years, with the first year of funding commencing in January 2016 for our South Australian, Victorian and Queensland financial counselling partners and July 2016 for our New South Wales partner.

#### **Energy Savings Partnerships**

Customers on AGL's Staying Connected program typically consume around 40% more electricity compared to average consumers. There are a range of reasons for this including a high proportion living in rental properties (presenting a barrier to adjustments to the building fabric), cheap appliances with high running cost, limited cash to invest in more efficient appliances, more time spent in the home during the day (disability, unemployment) and large multicultural families.

AGL has committed \$1.5 million in funding, which is being allocated to a mix of programs across the different jurisdictions in which AGL operates. The programs will seek to overcome some of the contributing factors to high consumption by Staying Connected households.

#### **Switched-on-Communities**

In 2016, AGL invested \$500,000 in the Queensland Government 'Switched On Communities' project, run by the Queensland Council of Social Service to provide grants to local community organisations to raise awareness about the deregulated energy market and provide information on how to compare offers and how to access assistance and consumer protections.

This investment in community outreach and customer education is focused in regions of disadvantage to assist people who are supported by a range of community organisations to get better outcomes in the competitive energy market. It builds capacity within not-for-profit community organisations to ensure community workers have the skills necessary to educate consumers on energy matters and are able to assist consumers in engaging with the electricity retail market.

The successful community organisations to receive Switched-On-Communities grants were: Salvation Army, Multilink Community Services, Queenslanders with Disability Network, COTA Queensland, Laidley and District Community Organisation, Coast2Bay Housing Group, Encircle, Mangrove Housing, and Palm Beach Neighbourhood Centre.

#### **Payment incentives and debt relief trials**

AGL has committed \$1.1m annually to this component of the Affordability Initiative, with \$600,000 going to debt relief and \$500,000 to matching payments. It commenced in July 2016 and will continue for three years.

Various models are being trialled for the structure of payment incentives and matching payments, such as top-ups on government provided emergency relief payments, offering bonus credits where payment plan



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obligations for customers on the Staying Connected Program are met for a specified period of time (e.g. two months), and matching plan repayments for customers on the Staying Connected Program who have been consistently meeting their plan obligations and are close to graduating from the program.

**Debt relief (waiver requests)**

The objective of this program is to provide partial or complete debt waiver for customers who due to circumstances will be challenged to ever repay their bill. These customers are recommended for debt relief following a financial counselling appointment. Circumstances are likely to include family violence, asylum seekers, family illness and job displacement. The policy for provision of relief continues to be refined.