

Submission
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INQUIRY INTO ELECTRICITY SUPPLY, DEMAND AND PRICES IN NEW SOUTH WALES

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**Legislative Council Select Committee on
Electricity Supply, Demand and Prices in New South Wales
Parliament of New South Wales
6 Macquarie Street
Sydney NSW 2000**

Submitted by email: electricitysupply@parliament.nsw.gov.au

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Dear Committee Members,

AGL Energy (**AGL**) welcomes the opportunity to make a submission to the New South Wales (**NSW**) Legislative Council's Select Committee on Electricity Supply, Demand and Prices in NSW (**Inquiry**).

AGL is one of Australia's leading integrated energy companies with over 3.6 million electricity and gas customer accounts in New South Wales, Victoria, Queensland and South Australia. AGL is also the largest ASX listed owner, operator and developer of renewable generation and our diverse power generation portfolio includes base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources.

In addition, AGL is continually innovating our suite of distributed energy services and solutions for customers of all sizes (residential, business and networks). These 'behind the meter' energy solutions involve new and distributed technologies such as energy storage, electric vehicles, solar PV systems and digital meters, and home energy management services delivered through digital applications.

AGL has given careful consideration to the issues raised in the Inquiry's Terms of Reference and would like to provide the following observations to inform the Select Committee's deliberations.

A. Reasons for recent large increases in the price of electricity

The price that is paid for electricity is comprised of three key components, namely:

- **network charges:** these charges are set by the Australian Energy Regulator (**AER**) which regulates the transmission and distribution networks and account for 40 to 55 per cent of the price;
- **wholesale energy and retailer costs:** these costs account for the operational cost of retailing electricity and most importantly, the cost of procuring electricity through the National Electricity Market (**NEM**) and 'hedging' across the energy market through physical and forward contracts to enable retailers to provide customers with stable retail prices. This accounts for 40 to 55 percent of the bill; and
- **the cost of environmental and government policies:** such as the Renewable Energy Target (**RET**), solar feed-in tariffs and energy efficiency schemes. These costs comprise between 5 to 15 per cent of a customer's bill.



These three cost components can vary considerably between jurisdictions. Accordingly, the reasons for the recent increases in the price of electricity will also differ by jurisdiction and must be considered on a state by state basis.

In the context of NSW, the increase in retail electricity pricing has been recently considered by a number of regulators and independent statutory authorities, notably the Australian Energy Market Commission (**AEMC**), the Australian Competition and Consumer Commission (**ACCC**) and the Independent Pricing and Regulatory Tribunal (**IPART**).

We refer the Committee to the following reports in particular:

- the *2017 AEMC Retail Energy Competition Review Final Report* released on 25 July 2017 (**AEMC Report**);
- the ACCC's *Retail Electricity Pricing Inquiry: Preliminary Report* released on the 22 September 2017 (**ACCC Report**); and
- the IPART draft report for its *Review of the performance and competitiveness of the retail electricity market in NSW, From 1 July 2016 to 30 June 2017*, released in 17 October 2017 (**IPART Report**).

These reports provide extensive analysis on electricity pricing and are largely in agreement that for the NSW jurisdiction:

- network costs were the major contributor in driving up NSW residential electricity prices over the past decade but network charges have decreased in 2015-16 and 2016-17;
- the cost from environmental and government policies have been fairly stable in 2015-16 and 2016-17;
- wholesale costs have largely driven the recent increase in average NSW electricity prices in 2016-17. Wholesale costs have increased significantly in the last two years due to the retirement of several large coal fired generators and the increase in the cost of gas; and
- retail costs and margins still account for only a small part of the average NSW consumer's bill.

B. Impact of deregulation of electricity prices in 2014

In AGL's view, deregulation of retail prices in 2014 has had a positive impact on competition in the NSW electricity market with no adverse impacts on customers and prices.

The IPART Report reinforced this view. The IPART Report considered in detail the performance and competitiveness of the NSW retail electricity market and was its third such report since price deregulation in 2013-14. In particular, the IPART Report concluded that:

- competition in the NSW electricity market continued to improve in 2016-17;
- recent retail price changes reflect the change in the cost of supply for electricity;
- NSW consumers are paying around the same prices for electricity today as they did prior to retail price deregulation in 2014;
- on average, residential customers are paying 2 per cent more for electricity since 2013-14 which is a real decrease in prices of 5 per cent; and

- many customers are benefitting from competition with the lowest electricity offers in the market around 7 per cent lower than they were before price deregulation.

The IPART Report also highlighted that since price deregulation, the NSW electricity market's performance against each of IPART's key indicators used in assessing competition had improved or remained steady. In particular, the number of brands competing in the market has risen from 15 to 26, the market share of smaller retailers has increased from 7 per cent to 13 per cent and the number of small customers on market offers has risen from 63 per cent to 77 per cent. These findings support the conclusion that competition has improved in the NSW electricity market both for residential and small business customers.

C. Alleged collusion and price gouging by energy retailers

The weight of analysis undertaken in the independent reports referred above supports the conclusion that increases in electricity prices were a consequence of wholesale costs rather than any conduct amounting to collusion or price gouging.

In particular, the IPART Report found that the large increase in electricity prices for residential customers in July this year was being driven by increased wholesale costs which were somewhat offset by decreases in network charges over the previous two years. These price changes reflected the change in costs of supply and did not reflect price gouging or collusion. The ACCC Report reinforced this view, in its analysis of NSW electricity prices.

There are a substantial number of electricity brands competing in the NSW retail electricity market. Indeed, as the AEMC Report found, competition continues to be effective in the NSW retail electricity market and is increasing.

D. Effectiveness or impact of any current regulatory standards and guidelines

As we outlined in our submission to the Commonwealth Standing Committee on the Environment and Energy Inquiry into modernising Australia's electricity grid¹, the energy market transformation is necessitating a broad range of reforms to ensure that the regulatory framework remains fit for purpose.

Australia's electricity system is undergoing a significant transformation. At the transmission level, variable renewable generation is increasingly replacing older thermal generation plant. At the distribution level, penetration of small-scale generation is proliferating as households and businesses across the country become both consumers and producers of electricity. The once linear supply chain - where electricity generated by large power stations is transported across the high-voltage transmission network and through the low-voltage distribution network and into homes and businesses - is becoming increasingly decentralised and bi-directional. There are both opportunities and challenges associated with this inexorable transition.

In AGL's view, it is imperative that the National Electricity Rules (**NER**) and accompanying regulatory instruments continue to evolve with developments in the energy industry and customers' changing expectations.

¹ See AGL, Submission to the Commonwealth Standing Committee on the Environment and Energy Inquiry into modernising Australia's electricity grid (28 April 2017), Available at <http://aglblog.com.au/wp-content/uploads/2017/04/Inquiry-into-modernising-Australias-electricity-grid-AGLs-submission.pdf>.



To ensure the sector's smooth transition and ongoing delivery of secure, affordable and sustainable energy into the future, AGL believes that policy should be guided by the following principles:

- where feasible, using **competitive markets** to deliver and value energy services.
- establishing policy, regulatory and market frameworks that are **technology neutral**.
- establishing appropriate **technology standards** that do not contradict broader policy objectives and are based, where possible, on international standards that encourage investments, ensures Australia keeps up with improving efficiencies and global best practices, promote customer choice, support competition and encourage economies of scale.
- utilising **price signals** to encourage efficient investment and operational decisions.
- **allocating risks** to parties that are best able to manage them.
- introducing **regulation only where necessary** to address a market failure, including to ensure system safety, security and reliability.
- ensuring **an equal playing field** where different providers of products and services, in markets, must compete openly on their merits.
- a customer protections framework that ensures all customers have the **basic right to access energy**.
- ensure a framework that is **inclusive of all customers**, including vulnerable customers, have the opportunity to participate and benefit from the energy market transformation.

Keeping these principles as a guidepost improves the predictability of modifications to existing regulatory and market frameworks when it becomes evident they are required. Open competitive markets and technology neutrality provide firms the impetus and latitude to pursue technology and service delivery innovations that meet system needs at efficient cost. We are already seeing evidence that holding to these principles promotes opportunities for addressing system impacts emerging from one set of technology innovations with technology innovations occurring elsewhere.

With a view to supporting the development of more effective regulatory settings, AGL has been actively engaged with the full spectrum of reform processes currently underway, including:

- the AEMC's contestability rule changes;
- the introduction of more cost-reflective network tariffs;
- the implementation of more stringent electricity distribution network ring-fencing;
- the Australian Energy Regulator's (**AER**) replacement expenditure rule change proposal for modifying the regulatory investment test;
- the AEMC's review of the economic regulatory framework as it applies to network businesses; and
- the work of Standards Australia and associated agencies in the development of appropriate technology standards, particularly in relation to energy storage and DER.



AGL believes that these reform processes need to be effectively coordinated and a national focus maintained to ensure a smooth transformation of Australia's electricity system. AGL is keen to ensure that governance and regulatory frameworks evolve to deliver benefits to energy users into the future. Timely development of technical standards and new platforms will animate new distributed energy resource markets and permit more efficient customer services and participation.

E. Options for future government oversight and responsibility in the re-regulation of electricity prices

AGL notes the aforementioned IPART Report, which stated that allowing competition to develop would deliver better outcomes for NSW customers than following a path of re-regulation.

The aforementioned ACCC Report also noted that the ACCC does not support intervening in retail markets unless it is certain that the intervention will improve the market and not have unintended consequences to the detriment of electricity consumers.

AGL believes a competitive market provides more choice for consumers and the opportunity for significant savings and does not support price regulation. Working in tandem with our other guiding principles outlined above, we believe that competitive markets will support more secure, affordable and sustainable energy into the future.

In an environment where the characteristics and needs of customers is expanding, it is positive that the retail regulatory and market framework is allowing new entrants with novel business models to enter the market and offer newly designed services to customers. By 'disrupting' the retail energy services market, new entrants drive enhanced competition amongst all market players. It will be important that governments reviewing retail electricity prices keep sight of the fast-evolving consumer energy landscape and do not, in an attempt to protect consumers, propose a return to more rigid price-setting framework.

Reducing price dispersion is likely to reduce competition and have a detrimental impact on low-income customers. Research by AGL economists² shows that price dispersion provides significant benefits to the family formation household demographic where vulnerability is highest due to low income per person and higher than average energy consumption. It is highly likely that price dispersion will become more pronounced as electricity markets decarbonise. As more costs become sunk, uniform pricing set to marginal cost will become even more problematic as large capital costs would not be recovered.

As such, it is important that policy-makers continue the support deregulated retail electricity markets to facilitate, rather than obstruct, the goals of efficient pricing and decarbonisation.

Despite these evident benefits, many customers continue to find energy offers confusing and difficult to compare.

To enable effective engagement in the market, AGL supports the development of a rate comparator to allow customers to more readily compare the likely dollar costs of alternative offers. A standard tariff for means-tested concession customers is also worth consideration, to ensure that these customers are able to

² See further Tim Nelson, Eleanor McCracken-Hewson, Patrick Whish-Wilson and Stephanie Bashir, 'Price Dispersion in Australian retail electricity markets' (June 2017) Available at https://www.researchgate.net/publication/317870381_Price_dispersion_in_Australian_retail_electricity_markets.



access an appropriate offer, regardless of how they engage with the competitive market. Through a competitive tender process, this product could be delivered in a cost-effective manner.

We would urge governments and policy-makers to continue to engage with industry to facilitate increased customer engagement in the retail market to further enhance competition, including by developing easier ways of comparing offers, and by ensuring that vulnerable and hardship customers are not paying more than they need to.

F. Adequacy of planning to meet future electricity demand, including utilising high efficiency, low emissions coal technology as well as the use of nuclear, gas, solar and wind energies, and energy storage through batteries, pumped hydro and hydrogen, and improved transmission between regions.

Establishing investment certainty in a carbon constrained world

The transition to a decarbonised and modernised generation sector requires large scale investment, much of which will be less than half way through its asset life at the end of the current RET scheme and Federal Government's current 26 - 28 per cent target under the Paris Agreement. Investment will be best supported by emissions reduction policy that provides macro level certainty as to the timeframe and operating life of incumbent plant and reduced levels of uncertainty as to the market environment within which current investments will operate in post 2030. Greater certainty in these areas will support a more efficient transition, guiding decisions on new investments, management of existing capital stock, policy development, community transition and energy market development.

AGL has consistently advocated for integrated policies to ensure that these objectives can be jointly pursued over time. As the decarbonisation and modernisation of the electricity sector will span several decades, a long-term vision and trajectory for this transition is essential to provide investors with confidence to develop the long-lived and often capital intensive projects that will enable Australia to reduce its emissions efficiently over time, and at least cost.

Consistent with the recommendations by the Independent Review into the Future Security of the National Electricity Market (**Finkel Review**), AGL supports the establishment of a long-term market mechanism to continue to drive new low emissions generation into the market in a technology neutral fashion. AGL also supports the Finkel Review's recommendation for a three-year notice of closure requirement for all large generators to support orderly transition. We encourage governments to implement these important policy reforms in a timely and coordinated manner.

Market design to support low-emissions generation and related ancillary services

The NEM was framed on the basis of thermal capacity investments and in most cases, assumes that demand is relatively inelastic and that dispatchable thermal generation is able to meet demand. The optimal generation mix therefore becomes the balance between the load duration curve and price duration curves. The shift to renewable energy is showing the limitations of the NEM's thermal-centric design in that both the load duration and price duration curves are shifting, diminishing the economic viability of incumbent large scale synchronous generation capacity.

As the generation mix changes to incorporate a growing amount of renewable energy, demand for energy services such as Frequency Control Ancillary Services (**FCAS**), reactive power, and inertia will increase as the traditional suppliers of these services exit the market. Maintaining system security will therefore require



complementary measures that accommodate a NEM in transition. Accommodating greater levels of variable renewable generation in the NEM requires consideration of the unintended consequences of climate change policy on the operation of energy markets.

In AGL's view, key mechanisms for doing so include:

1. The introduction of incentives to ensure that intermittent generation sources become 'firm' and dispatchable

To ensure additional renewable generation beyond the current RET does not impact system security, policy makers may consider adding a requirement for dispatchability to new intermittent generation. Within an energy-only market, the total cost of renewables subsidies will be greater if they are constructed with no reference to their impact on system security. A system whereby renewable generators partner, through direct or indirect means, with complementary 'firm' capacity (such as open-cycle gas turbines, pumped hydro or advanced batteries) has the potential to address such concerns.

2. The use of existing and new supplementary markets to improve security, reliability and system resilience

The introduction of new ancillary services markets will ensure that users appropriately value services to support system security and reliability, such as inertia, that had previously been available for free and in surplus.

AGL anticipates that the needs of the wholesale energy market will increasingly be supplied through a proliferation of distributed energy resources (**DER**), and the extent of the uptake and utilisation of DER may affect the role of large scale assets within future markets. Accordingly, the wholesale market will increasingly need to accommodate a diverse portfolio of decentralised low-emissions generation assets, which may affect both the development of industry scale investments as well as the accessibility of supportive ancillary services.

We anticipate that the role of traditional generation will increasingly be met by flexible DER and a range of low-emissions generation. However, the proliferation of DER within a broader generation mix will require a commensurate ability to co-ordinate those assets in order to maximise the benefit to the primary and ancillary wholesale markets. AGL's virtual power plant (**VPP**) is an example of how DER can deliver those services within a competitive market if it is orchestrated effectively.

AGL considers that future industry scale investments will increasingly need to conform to the following design principles to effectively complement decentralised low-emissions generation:

- be modular and adaptable, capable of combining with multiple medium and large scale fuel sources;
- utilise conversion technologies to deliver high efficiency and low emissions outputs;
- be scalable or grid-scalable, making it applicable to the grid as well as the distribution market (with its capacity to facilitate energy back flows); and
- be adaptable to the increased penetration of DER behind the meter.



G. Adequacy of programs to assist low income earners, pensioners and senior card holders to afford electricity as well as the impact of additional fees, such as late payment fees, included in energy bills

AGL is keenly aware of the current pressure on energy affordability for our customers, and appreciates that periods of vulnerability can impact upon us all.

AGL's hardship customers are already benefiting through our *Fairer Way Package*, which places our most vulnerable customers on specifically designed products with high guaranteed discounts, while our concession and hardship customers are not charged paper bill, late payment or over the counter fees.

AGL is also investing:

- \$1.2 million over three years to increase financial counselling resources in Queensland, New South Wales, Victoria and South Australia so that additional resources are dedicated to supporting vulnerable consumers, connecting them wherever possible with appropriate support services; and
- in a \$1 million partnership with the NSW Government to deliver solar energy to vulnerable customers residing in social housing.

These initiatives complement the supports available to our customers through our hardship program, *Staying Connected*. We encourage all our customers to access these support programs in times of need.

AGL note that the NSW Government has recently proposed changes to the NSW Social Code, which includes increasing rebate levels and implementing retailer obligations to contact customers who remain on a Standing Offer every 6 months.

AGL welcomes the increased rebate and given our focus on providing solutions to customers experiencing payment difficulty, we implemented the update to our systems within a week of the announcement. We have already written to our concession customers who are on Standing Offers, inviting them to participate in a plan check to ensure they have the best product for their circumstances.

AGL also contends that universal service obligations for customers in financial hardship ought to apply across all retail entities, to ensure vulnerable customers are afforded consistent protection, regardless of which retailer provides their electricity or gas.

Closing remarks

Should you have any questions or comments in relation to this submission, please contact

Yours sincerely,

Dr Tim Nelson

Chief Economist, AGL Energy