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Mr John Pierce
Australian Energy Market Commission
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Email: john.pierce@aemc.gov.au

Reference: ERC0186

Dear John,

Re AEMC 2016, Demand Response Mechanism and Ancillary Services Unbundling, Consultation Paper

AGL Energy (**AGL**) welcomes the opportunity to respond to the *AEMC 2016, Demand Response Mechanism and Ancillary Services Unbundling, Consultation Paper* (**Consultation Paper**).

AGL is one of Australia's leading integrated energy companies and largest ASX listed owner, operator and developer of renewable generation. Our diverse power generation portfolio includes base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources. AGL is also a significant retailer of energy, providing energy solutions to over 3.7 million customers throughout eastern Australia. AGL recently established a New Energy Services division, with a dedicated focus on distributed energy services and solutions.

No market failure at wholesale level

AGL has been an active participant in discussions on a potential wholesale Demand Response Mechanism (**DRM**) since consultation first began in early 2013. The proposal has had a protracted progression owing to the need to address serious questions regarding the design of the scheme and the need for and benefits of its implementation.

In AGL's view there still has not been proven any market failure in the provision of demand response at the wholesale market level. As noted in the Consultation Paper, there are already avenues for large customer loads to provide a demand response to wholesale market pricing signals. If the customer is not well equipped to manage spot price exposure via direct market participation then they can already negotiate a retail contract with a demand response component and/or partial spot price exposure.

The suggested barriers to retailers offering these kinds of contracts – such as a lack of incentives – fails to recognise that it is a very highly competitive retail market. Retailers have every incentive to accommodate – and seek to anticipate – the needs of their customers where at all feasible. AGL has and will continue to

offer demand response products to its customers. These can be structured in a number of different ways to meet customer requirements. However the reality is that customer interest in these products has been very low because the interruption to industrial, production and other business processes is usually more costly than the wholesale market value that can be derived from the curtailment.

There are a diversity of means for retailers to manage wholesale pricing risk and for customers to optimise their energy use. In the former category these include financial hedges and cap contracts. In the latter, power factor correction, efficiency measures and onsite supply substitutions, such as solar or co/tri-generation. The fact that direct spot price exposure or wholesale demand response contracting is not often pursued does not imply that there is a market failure, only that these are not the most efficient means of managing wholesale pricing risk or optimising onsite energy consumption and cost.

The current rule change proposal has been recrafted in voluntary terms. Under the revised proposal, it would be up to each retailer to decide whether they will let their customers participate in the DRM – the suggestion being that they might do so if they could make up an internal business case based on securing market share. The reality is that retailers already market themselves to customers on the basis of their retail offers including demand response options – a rule change is not required to facilitate this. Accordingly, it is difficult from AGL's perspective to see what benefits, if any, the revised 'voluntary' DRM would achieve.

Costs, benefit and design issues

Reducing implementation costs does not increase the benefits case. Looking to Oakley Greenwood's 2014 analysis, a move to voluntary implementation might see a ten-fold improvement in the costs of the program, but would still ultimately see a negative outcome - AEMO implementation costs at $8-14m with very marginal wholesale benefits of $1.2m NPV over 10 years. AEMO's implementation costs are not insubstantial and must be borne by market participants at a time when all businesses are keenly focused on cost cutting.

In addition to the above, AGL has ongoing concerns about a number of elements of the DRM design. Where a DRA aggregates what cumulatively is a substantial load, then its ability to self-schedule outside of AEMO's central dispatch may impact the market's ability to reach efficient equilibrium. Without information on the DRAs intentions regarding curtailment (including volume, timing and duration), the supply side cannot respond efficiently. A similar issue has recently prompted a rule change proposal that would require all market loads above 30MW to become scheduled.[1]

Accurate and reliable baseline setting is also inherently challenging and this forms the backbone of the entire DRM proposal. There are also inefficient costs involved in a retailer requiring ongoing physical and financial hedge cover for baseline consumption that may not actually occur.

[1] AEMC Consultation Paper, National Electricity Amendment (Demand side obligations to bid into central dispatch) Rule 2015, November 2015

Further, retailers invest substantially in customer relationships and customers expect a high level of service from their retailer. High quality service delivery becomes far more difficult where a DRA is making potentially high impact decisions regarding the customer's load without the retailer having any involvement in, or visibility of, the arrangement. Is it important to note that under the proposal a DRA is not required to maintain the same regulatory and compliance obligations as a traditional retailer.

New market environment

Although we are now seeing increasing volatility in the South Australian market, this is not driven so much by a tightening of the supply-demand balance but rather by a substantial increase in the proportion of intermittent renewable generation and an exit of more traditional plant. A DRM with the aim of smoothing out remaining volatility may have unintended consequences for the ongoing viability of remaining dispatchable plant.

Ensuring system security and reliability in light of ongoing changes to Australia's energy mix is a serious and complex issue and, in AGL's view, the demand side and new technologies are both likely to have a key role to play in any solution. But what that solution should look like – that is, what market redesign will provide the resilience necessary to cope with inevitable further changes to the energy mix – is still an open question deserving of considerable examination and debate. It would be dangerous to presume that the right solution is the implementation of a model that was first conceived in 2012 when the issues facing the market were of a quite different nature to the ones we are seeing today.

Technological advancement offers new opportunities to face the emerging challenges associated with increased penetration of renewable energy. In this regard, AGL considers that the second component of the current rule change proposal – namely, the potential to open up the FCAS market to a broader suite of participants is something worthy of further investigation. Conceivably a distributed portfolio of remotely controllable loads and/or batteries could provide a new source of FCAS and/or inertia that has to date been provided by traditional synchronous plant.

Whatever mechanism is used to open up the FCAS market (and potentially extend to include new services) should be competitively and technology neutral. There would be a number of practical and operational questions to be addressed by would-be FCAS providers – for example as to whether their aggregation of load and/or batteries can reliably meet the technical hurdles contained in the market ancillary services specification. However competitive and technological neutrality in scheme design would enable the market to lead efficient entry – whether this be in the form of large scale transmission connected batteries, aggregation of midscale thermal loads or a multitude of other possibilities – and will naturally be directly correlated with the costs of potential solutions versus the value to be captured by market participation.

Valuable recent reforms

Finally, it is worth contrasting the situation at the wholesale market level in terms of the levels of efficient demand side participation against the situation further down the energy supply chain at the network and retail level. Here complementary regulatory reforms and technological developments are providing new opportunities for the demand side to participate in ways not previously available and in doing so deliver real value and improved market efficiency.

New rules require distribution businesses to design cost-reflective pricing that provides the opportunity for customers to adjust their consumption with reference to the costs of using the network at different times.[2] Provided that the tariff structures implemented by distribution businesses deliver on the intent of the new rules, then AGL is strongly supportive of this reform. Our New Energy Services division works actively with a variety of end-use customers to design and provide distributed energy solutions that will enable them to optimise their energy use in this new environment.

A key enabler of the customer demand response falls out of a complementary regulatory reform which establishes the framework for a market-led rollout of communications-enabled digital meters.[3] AGL has been a driving force behind this reform. Advanced digital meters support greater customer understanding of their energy use patterns and access to new technologies and advanced services that will empower them to take greater control over that usage and the associated costs.

Network businesses are also now required as part of their revenue proposals to consider efficient non-network alternatives to traditional network augmentation, including potential demand management initiatives.[4] Again, New Energy Services is already engaging with network businesses and customers alike to explore ways in which it can facilitate demand side participation that would avoid more traditional and costly network build-out solutions.

In AGL's view it is entirely appropriate that the recent focus of reform and effort from a demand side perspective has been at the network and retail end of the energy supply chain. Network tariffs have doubled in some jurisdictions over the five years from 2009. In contrast, wholesale electricity prices in 2015 are in real terms no higher than they were at the commencement of the NEM sixteen years ago.[5] Further, local network peaks are very weakly correlated with high spot price events so that responding to such events will not assist to address the bigger issue of low network utilisation and local network constraints.[6]

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[2] AEMC Final Determination, National Electricity Amendment (Distribution Network Pricing Arrangements) Rule 2014, 27 November 2014

[3] AEMC Final Determination, National Electricity Amendment (Expanding competition in metering and related services) Rule 2015, National Energy Retail Amendment (Expanding competition in metering and related services) Rule 2015, 26 November 2015

[4] AEMC, Final Rule Determination, National Electricity Amendment (Demand Management incentive Scheme) Rule 2015, 20 August 2015

[5] Nelson, T. and Orton, F. "Australia's National Electricity Market – optimising policy to facilitate demand-side response", Australian Economic Review

[6] Ibid

Should you have any questions in relation to this submission, please contact Eleanor McCracken-Hewson, Policy & Regulatory Manager, New Energy, on 03 8633 7252.

Yours sincerely,

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