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Sebastian Henry  
Project Leader  
Australian Energy Market Commission  
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Dear Sebastian

### **Reserve services in the NEM directions paper**

AGL Energy (AGL) welcomes the opportunity to comment on the Australian Energy Market Commission (AEMC) Reserve Services in the NEM directions paper.

AGL is one of Australia's leading integrated energy companies and the 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 and provides energy solutions to over 3.6 million customers in New South Wales, Victoria, Queensland, Western Australia, and South Australia.

### **Operating reserve service need**

AGL agrees with the AEMC's assessment that the current market design appears sufficient to meet expected reserve requirements such as evening ramp requirements and peak demand events, and we do not support the introduction of a reserve service for this need. In regard to unexpected reserve requirements, we agree with the AEMC that there is an increased risk of insufficient in-market reserves being available to meet net demand in the NEM due principally to forecast uncertainty and net demand variability as the penetration of VRE generation increases. We note however that a corollary is that this risk exists due to the limited flexibility of generators in the NEM.

A relevant question which the directions paper does not seem to have addressed is why the current market design may be inadequate in managing this risk. As discussed in our submission to the system services rule change consultation paper (August 2020 submission), AGL considers the ability of the NEM to adapt to increased variability has been limited because the market price cap intervention reduces revenue and investment signals for different generation types in different proportions. Flexible capacity generators which have a low capacity factor and receive most of their compensation from high priced periods above \$300 (which only occur in less than 5% of trading intervals in the NEM) receive a high proportion of their revenue from extreme price spikes and therefore forgo the highest proportion of revenue due to the market price cap. This contrasts with other generators which receive a much smaller proportion of their revenue from extreme price spikes since they are designed to operate at much higher capacity factors and are more likely to be offline during extreme price spike (due to weather variations for VRE or due to plant outages for inflexible dispatchable generators). These generators also have a much lower SRMC and therefore recoup long run costs at much lower prices than flexible capacity generators. While we do not advocate for an increase in the market price cap, we consider it important for the AEMC to



consider the nature of its impact on investment in flexible capacity and the potential increased risk of insufficient reserves.

AGL considers that whether these issues justify the creation of a reserve service is an open question particularly given uncertainty regarding the introduction of new market mechanisms including the proposed Unit Commitment for Security. We suggest that a full assessment of investment incentives and barriers to entry for new flexible capacity plant may be required to determine whether a reserve service is required. Nevertheless, if the AEMC or Energy Security Board decide a new mechanism is required to address a risk of insufficient market reserves we consider a reserve service to be the best option as it would be a less disruptive intervention and easier to implement than other options such as introducing a capacity market or modification of the Retailer Reliability Obligation.

While a reserve service will somewhat assist the provision of system security since it ensures the availability of synchronous plant it is a poor mechanism for ensuring the dispatch of system services since a reserve service does not provide for unit commitment of specific generator units and because it uses market-based price discovery which is not suitable for system strength markets which have few competitors. AGL has discussed these issues further in our August 2020 submission.

### Operating reserve service design

If a reserve service is introduced in the NEM we suggest it should have a timeframe which reflects the need for reserves to meet unexpected reserve requirements due to variability of wind and solar given this is the key risk to insufficient market reserves which the AEMC considers may need to be addressed under the current market design. This is consistent with the traditional design of operating reserves markets which exist to manage contingency events rather than overall system reliability or the ramping limitations of certain plant.

Wind and solar availability can change very rapidly, and we therefore suggest a short timeframe so that the reserves procured can best match the volume required. We suggest 10 minutes would be an efficient balance between the low forecast error of a short timeframe and the wider participation which would be possible at longer timeframes. We consider a 5 minute timeframe to be too short as it would overlap with FCAS and would preclude some fast-start flexible resources and demand response which are well-suited to respond to contingency events. Excluding these generators may unnecessarily reduce supply and competition in the market. We do not support a longer timeframe (e.g. 30 min) as this would mean there is no incentive for capacity engaging in the reserve service market to have a fast response time, which would be perverse for a mechanism designed to limit risks due to unexpected variations in wind and solar. We note that we would expect the forecast error for a reserve service with a 30 minute timeframe to be significantly higher than a 10 minute timeframe.

We do not support the introduction of a ramping service as proposed by Delta Electricity as it targets plant which is not well suited to respond to contingencies and because a ramping service is not a technological neutral approach, since it creates a market to support certain plant in overcoming a deficiency rather than a market to support providers of a system need.

While a co-optimised service may lead to a better allocation of resources rather than withdrawing available plant from the market, we encourage the AEMC to conduct further analysis to determine



whether a reserve service that removes capacity from the market may be a more effective mechanism for ensuring adequate reserves.

#### Consultation process

Given the lack of clarity regarding both the need for a reserve service or how the various design options would work in practice, we hope the AEMC will provide greater detail on different options for the design of a reserve service, and an opportunity to provide comment, prior to the proposed 24 June 2021 draft determination.

If you have any questions about this submission, please contact Anton King at [aking6@agl.com.au](mailto:aking6@agl.com.au) or on 03 8633 6102.

Yours sincerely,

**Chris Streets**

Senior Manager Wholesale Markets Regulation