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Dear Ben,

Fast frequency response market ancillary service

AGL Energy (AGL) welcomes the opportunity to comment on the Australian Energy Market Commission (AEMC) fast frequency response market ancillary service draft determination.

AGL is a leading integrated essential service provider, with a proud 184-year history of innovation and a passionate belief in progress – human and technological. We deliver 4.2 million gas, electricity, and telecommunications services to our residential, small and large business, and wholesale customers across Australia. We operate Australia's largest electricity generation portfolio, with an operated generation capacity of 11,208 MW, which accounts for approximately 20% of the total generation capacity within Australia's National Electricity Market.

The draft rule

AGL supports the proposed introduction of a fast frequency response (FFR) market ancillary service to support the power system as the level of inertia provided by synchronous generators declines in the NEM. We consider the AEMC proposal to introduce two new market ancillary service categories into the NEM for a very fast raise service and a very fast lower service to be the correct approach. This is preferable to combining the current fast (six second) and slow (60 second) services and introducing the new service without increasing the number of existing services. Since the response capability varies for different technologies, combining FCAS services would reduce opportunities for FCAS providers and potentially see a reduction in the number of FCAS providers in the market, reducing market efficiency and increasing the price of FCAS.

Inertia

AGL agrees with the AEMC that FFR and inertia are not substitutes, and that while FFR can help control system frequency during low inertia operation, a minimum quantity of synchronous inertia will continue to be required over at least the medium term. We accept the AEMC's decision not to include inertia as a service which can be compensated under this new rule. AGL has previously, and continues, to support the introduction of a competitive tender process to ensure that the provision of inertia is appropriately compensated and incentivised in the NEM. We therefore support the Energy Security Board's continued work in this area in their consideration of post-2025 market reforms. We note that once market arrangements for inertia are in place, FFR as a standalone service may no longer be required.

Implementation

AEMO estimates that the implementation of two new FCAS categories would be in the order of three years, and the draft rule suggests a three year implementation timeframe, with 18 months to



update the market ancillary services specification (MASS). AGL suggests that a quicker timeframe of two years is appropriate for the below reasons.

Under the MASS, fast services (six seconds) are valued by their ability to arrest a rapid change in system frequency within the first six seconds of a frequency disturbance, and then provide an orderly transition to the slow raise service or slow lower service. A response quicker than six seconds is not required under the MASS, nevertheless AEMO will typically have an expectation (through agreement on droop setting) that a unit will respond quicker than six seconds if it has the capability. While traditional units need six seconds to ramp up before arresting a frequency disturbance, a battery does not require this ramp time and can hit full FCAS in as little as 100ms. This is currently occurring in the NEM due to the droop settings applied to batteries. Therefore, since a very fast frequency response is effectively already being provided by those with the capability, we suggest that the new FFR rule be introduced with a two year timeframe to ensure providers of the service are appropriately compensated.

AEMO's Generation Information page currently lists 18 GW of proposed batteries in the NEM. A quicker implementation of the new rule has the potential to accelerate the development of these projects and increase the likelihood that they go ahead since it will provide certainty for battery developers and ensure batteries are compensated for their very fast frequency response capabilities.

Under the proposed three year timeframe, AEMO estimates that they will need 18 months to update the MASS even though updating the MASS usually takes nine months. The extra nine months is required to do a power system study. However, given that these very fast services are already effectively operating in the NEM through generator droop settings it is unclear why a nine month power system review would be required, or why it could not operate in parallel to the other aspects of the MASS update. The three year timeframe also includes 18 months to update market systems (including NEMDE) and to consult with industry. We suggest that given the draft rule only requires the introduction of two new services in an existing well understood framework this period could also be shortened.

Finally, we note that as the level of inertia in the system declines and the energy transition accelerates, often at unexpected pace, it's possible that the need for a FFR service to ensure system security rather than just to provide the right incentives for future investment may occur sooner than three years after the final rule is made.

If you have any queries about this submission, please contact Anton King on (03) 8633 6102 or aking6@agl.com.au.

Yours sincerely,

Chris Streets

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