

11 March 2021

Australian Energy Market Operator

530 Collins Street  
Melbourne VIC 3000

**Re: Market Ancillary Service Specification Consultation – Issues Paper**

CitiPower, Powercor and United Energy welcome the opportunity to respond to the Australian Energy Market Operator's (AEMO) issues paper on the amendment of the Market Ancillary Service Specification (MASS). We note our submission focuses on the Distributed Energy Resources (DER) MASS review.

We are supportive of amending the measurement requirements in line with the learnings from AEMO's virtual power plant (VPP) demonstration. The proposed amendments will make it economical for a larger number of small-scale DER systems to participate in the FCAS market. This will increase AEMO's FCAS pool and consequently, promote competition in delivering the required FCAS services in the National Electricity Market (NEM).

In addition to the proposed MASS amendments, we strongly encourage AEMO to consider how the new arrangements could apply to frequency services provided from distributor-owned grid-scale DER (such as energy storage) and other network-led initiatives. Currently, distributors are not allowed to participate in FCAS markets as they cannot be registered as a market participant. This prevents distributors from extracting the full value from their grid-scale energy storage or dynamic voltage management (DVMS) systems—both of which can provide services into the FCAS markets, increase competition in these services and reduce costs for consumers through revenue sharing arrangements. As such, we encourage AEMO to develop arrangements for distributors to provide frequency services into the NEM, either through bilateral contracts or changes to market participation requirements.

Our submission provides key considerations for the proposed amendments to the MASS.

**There are benefits to amending the measurement requirements in line with the learnings from the AEMO's VPP demonstrations**

The learnings from AEMO's VPP trial demonstrated the benefits of DER responding to FCAS events and as such, we strongly support the amendment to allow DER to meet the measurement requirements by capturing power flow and local frequency with a resolution of less than or equal to 1 second across all National Metering Identifiers (NMI) rather than 50 milliseconds (ms) or less.

Key benefits of proposed amendment include:

- increased competition in the contingency FCAS market—more assets will be made available to participate in the FCAS market which will stimulate competition
- more efficient and reliable market operation—AEMO will have access to a larger pool of assets to ensure the most efficient and reliable system operation
- market investment and innovation—small-scale DER will have easier access to additional value streams through FCAS participation, without incurring significant costs. This has the potential to accelerate market-led investment in small-scale DER systems and promote innovation in the industry.

We propose the following further recommendations regarding the proposed amendments.

- Droop setting—the current MASS rule limits the maximum frequency response rate from proportional controllers to 1.7% droop setting. We recommend using 0.7% droop settings as applied in the VPP demonstration trial for small-scale DER systems.
- High resolution metering—based on the current recommendation, the VPP proponent is required to install a high-resolution meter for every 5MW capacity. It is recommended clarity is provided on the rationale behind this decision. Our recommendation is to revert to the proven VPP trial requirement for high-resolution metering i.e. one high-speed meter per region, as we believe this is sufficient to validate the performance.
- Relocation/decommissioning of assets installed on low voltage (LV) distribution networks – our understanding is a VPP facilitator is only required to re-register NMI's if they are intending to increase the capacity (MW) of the VPP. This will avoid the need to register and re-register NMI's frequently due to customer churn. AEMO will validate the NMI's to confirm the maximum capacity of the VPP. However, it is recommended that further clarity is provided on how AEMO will treat the relocation/decommissioning of a VPP asset installed on a low voltage (LV) distribution network. Since the VPP facilitator is managing the risk of an underperformance, it is recommended AEMO treat this similar to a customer churn.

#### **Lower resolution data is sufficient to provide FCAS participation of VPP assets without impacting system security**

We consider the current MASS rules to install high-resolution metering are a cost barrier for small-scale DER systems to participate in the FCAS markets. Based on our research, the cost of metering significantly increases with the increased metering resolution. The current products available in the market will cost in excess of \$3,000 plus installation and operational cost per NMI. In most applications existing inverters will capture 1s data without incurring additional metering costs.

As the VPP trial has demonstrated that lower-resolution ( $\leq 1s$ ) data is sufficient to prove FCAS participation of VPP assets without impacting system security, we consider lower resolution data is sufficient to reduce unnecessary costs to consumers.

#### **Consideration needs to be given to the MASS measurement requirements for varying generation thresholds**

The changes to the measurement requirements of the MASS in relation to generation thresholds should be based on the value add that high-resolution metering provides to the NEM. Larger generators participating in the market have a bigger impact on system security and reliability during mal operation. Hence, they will have a greater need to have high-resolution metering for fault investigations and system safety. We believe that AEMO is best placed to determine the size of the systems to which this proposed amendment should apply.

Should you have any queries, please contact Ellen Lukin on 0428 824 858 or [elukin@powercor.com.au](mailto:elukin@powercor.com.au).

Yours sincerely,



Brent Cleeve

**Head of Regulation**  
**CitiPower, Powercor and United Energy**