

# MASS Consultation – 1-1 meeting minute summary

AEMO held 1-1 stakeholder meetings following the conclusion of the first stage of consultation on the amendments to the Market Ancillary Service Specification.

These meetings were held to seek further clarification on information provided by stakeholders in submissions, or at the formal request of stakeholders seeking to discuss or provide additional information. A summary of the minutes from each meeting has been provided below.

## 1. Evergen

### 1.1 Agenda

The meeting was requested by Evergen to provide AEMO with an overview of their organisation and the broad range of projects they are involved in, discussion around what Evergen is seeking to achieve with their software platform and how the software can be optimised to provide network and other services.

### 1.2 Items for discussion or Noting

Question 1 – Evergen indicated that the software platform utilised (in this case, a cloud-native platform) can support grid management by integrating with a range of hardware types, while allowing customers to churn freely between retailers and retail-specific VPPs. AEMO sought to understand if all of the management is cloud based, how Evergen treats network disturbances (voltage etc.) if enabled for FCAS?

- Evergen indicated that there are a number of different places where controls can be in place, for example at the inverter. They indicated that they don't necessarily communicate which response is required, except that they are enabled. If there is a voltage disturbance during that time, Evergen constantly forecasts the status of fleets, load and conduct availability prediction. They then incorporate a level of uncertainty into the fleet availability and enable different services based on that. Evergen allows a buffer for that type of disturbance across the jurisdiction and continues to monitor the network to identify disturbances and the buffer is reassessed accordingly to ensure compliance when enabled for a particular service.
- They also noted that existing demonstrations are based on fleets comprised largely of small and relatively inexpensive batteries. These don't necessarily have advanced capabilities to monitor for network disturbances and optimise the response to remain FCAS compliant. These batteries are increasingly being upsized and in parallel a broad range of hardware manufacturers have confirmed they are investing in upgrades and improvements to technology which over time will result in improved capabilities. Better battery capability would result in proportionally better performance as part of delivering FCAS and data capture. By utilising excellent software, the best performance can be obtained out of batteries despite lowest capabilities.

Question 2 - Is additional hardware required to deliver ancillary or grid support services?

- Evergen indicated that they don't see the need to add additional hardware as a requirement. It would add costs for consumers and complexity for installers. However, they are willing to support hardware installation where it makes sense/if the consumers want it (e.g. behind the meter controls and device switching to support demand response at both a residential and commercial scale). Evergen also mentioned that it would be cumbersome for utilities or other market participants or aggregators to integrate with different providers if there are different hardware installations.

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Question 3 – In the VPP Demonstrations, the grid flow is also captured by FCAS providers. If hardware is already installed to capture the grid flow, can data be captured at a higher resolution with no additional meter required, and would that be a smooth integration with Evergen’s software platform?

- Evergen confirmed that it would be possible to capture high-resolution data on its platform, but the inverter must have the capability to sample at high speed. They also noted the point at which measurement is taken is currently at the inverter – however, if it is not at the inverter, it would rely on another party to install additional hardware to provide measurements elsewhere.

Question 4 - Why would additional hardware be required if measurements are already captured at grid flow?

- Evergen clarified that this is not required but that it is common at the moment for an additional meter to be installed. They also indicated they do not see that the meter is necessary if the inverter meter meets the requirements and noted that this is rapidly improving.
- Evergen has a “Reactive de-aggregation” mechanism – looks out over the fleet to ensure the outcome is delivered irrespective of circumstances. They have visibility over the fleet and can automatically & algorithmically adjust the response based on how the fleet is responding.