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. Landis + Gyr

1.1 Agenda

The meeting was requested by AEMO to discuss the following key items:

- Current measurement sampling rate of the inverters on site
- Implications of AS/NZS 4777.2:2020
- Verification of FCAS delivery
- Grid flow data capture

1.2 Items for discussion or noting

1.2.1 Sampling Rate

Noting from Landis+Gyr's submission that the next generation of meters will be able to support 100ms requirement, what is the sampling rate of each meter element? Is this linked to AS 4777.2:2020?

- Landis+Gyr indicated that this is not based on AS 4777.2:2020, instead that this is based on the metrology chip which determines measurement rate. They indicated that they can measure at 100ms and if faster requirements are established, a feasibility study will need to be undertaken.

What are the issues with capturing and storing high-speed measurements?

- Landis+Gyr indicated that with regards to storage in the meter, it depends how much memory the meter has. There is a need to consider dynamic memory and that these need to be future proofed for approximately 15 years (based on lifetime of meter). The current meter offering may have the data memory required to store that level of data, depending on the duration required. In terms of offsite storage, this comes down to the operator to determine whether this can be achieved. However, they don't see data storage as being cost prohibitive or a show-stopper to have measurement data at 100ms.
- Landis+Gyr also noted that they are currently able to meet accuracy requirements as specified by AEMO (class 1 accuracy), but that this is for energy/power measurement only, not voltage and frequency. They did note that inverters are accurate at measuring frequency and that inverter and metrology standards are different. Meters must meet accuracy requirements for billing data, not voltage and frequency requirements as per the inverter standards.
- Landis+Gyr indicated that sampling rate is currently done at 6.4KHz. Data is available at 100ms intervals (at a point in time).
- Landis+Gyr indicated that there are no major concerns with capturing data at 100ms with the current generation of meters and that they would only keep the relevant data when there is an event. This is achieved by the set-up of a new process to capture, store and communicate the data from the event period. They proposed that this process can be achieved

industry-wide but would need each metering provider to confirm whether only the data captured during a frequency disturbance can be stored.

Could delivery be accurately verified from 1s or is a higher resolution needed?

- Landi+Gyr indicated that **if we look to reduce data output rate (i.e. decreased sampling rate) then accuracy would improve.** However, the sampling rate needs to be fast enough to pick up deviations/delivery issues despite the output data. At 1s, there may be some latency between action required and actual performance if control functions are performed by the meter. Increasing the sampling rate to 100ms would mean that there would be significantly less delay between detecting a frequency deviation and the meter responding to it if required. (i.e. internal relay operation)

1.3 Measurement location

Does the way in which payments occur (based on FCAS enablement) and verification process completed (via measurement data) impact Landis+Gyr's view of location of FCAS measurements?

- Landis+Gyr indicated that measurements should be taken at the connection point. They indicated the need to consider diverse connection agreements with the potential to have 3 phase metering. Therefore, measurement at the meter allows more controllable devices to participate from across the household. In this instance, data for each phase will be captured so that verification could be done based on each element. In the case of a single-phase meter, these can be configured into load, generation etc.