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. Shell Energy

1.1 Agenda

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

- Shell Energy's suggestion that a 200ms metering requirement would be substantially cheaper than the 50ms metering requirement
- Whether the active power measurement time specified for inverters under AS/NZS 4777.2:2020 had any bearing on the 200ms data capture rate mentioned in Shell's formal submission.

1.2 Items for discussion or Noting

1.2.1 Sampling Rate

AEMO noted that certain submissions proposed a 100ms metering requirement to align with inverter measurements; and sought Shell Energy's views and queried whether the gate meter can be upgraded to meet this requirement?

- Shell indicated that in relation to direct load control (not inverter solutions), this would be approaching the limit of the lower cost metering hardware and were not comfortable that AEMO would reliably get 100ms measurements each time due to additional requirements on the meter or latency via the cable run to a data logger that would be needed.

When referring to 100m cable run, does this apply to community scale systems rather than residential?

- Shell confirmed that this relates to commercial scale. It is not just the cable run that is the issue, but also the data logger and recording. Polling request to meter may be stuck in a queue due to other activities being undertaken by the system (management of battery etc)

AEMO requests high speed data within 2 weeks of an event for verification. If the data is kept onsite in memory and sent when requested, data only needs to be captured (and stored for 1 year) for frequency disturbances where the facility was participating in the FCAS markets. Does this impact the ability to capture and store data with a time resolution of 100ms?

- Shell informed that the data logger is used for storage, so all of the latency is due to the meter itself and the connection to the data logger.
- Shell also noted that longer cable runs introduce high probability of 'noise' in the data transferred. Similarly, with the device, if measurements are at 200ms, Shell is relatively confident the accuracy requirement can be met. If 100ms is required, they may need an additional data logger at the meter as well as at the load control source.
- Is a time resolution of 200ms possible for Shell, but 100ms is questionable?
- Shell confirmed, based on current research and capability; they are not confident that they would be able to hit 100ms at low cost. 200ms could be achieved at low cost.

- They also noted that it was costly for Shell to undertake bench testing; if 100ms was a requirement we would probably not participate in fast services with direct load control for a while.
- Shell noted that there may be delays in the data provided and on AEMO indicating that data is not required as events occur, Shell clarified that they are not talking about delays in getting data to AEMO. Instead, there are delays with the microcomputer doing approx. 300 tasks (for example) in every second – This might cause the microcomputer to get stuck on a task for a period of time which may impact sample rate capability.

1.3   Costs

Shell's submission indicated a cost is $20-$30k for High speed meters – is this per NMI?

- Shell confirmed that this is correct.

Why is there a significant difference in the costs put forward by Shell compared to costs mentioned in other formal submissions?

- Shell indicated that this includes the system side and meter requirements (not just onsite hardware) – including hardware costs, data storage, and extrapolated costs for DER.

AEMO noted that having spoken to a few metering providers it appears that some of the costs indicated are significantly lower than $1K per NMI; AEMO would like to understand why there is a significant difference in the cost indicated by Shell?

- Shell indicated that they are able to get existing meters that Shell uses to provide 200ms data read. This would involve installing a higher-grade meter which is able to do 200ms (every site needs to be replaced – however, this is not a material cost). The cost of installing a higher-grade meter is approximately $1000 per site .