

Operational Metering Working Group Summary

Session 2

15th August 2022

Participants

Calum McCarroll	National Grid ESO
Edward Farley	National Grid ESO
Andrew Wainwright	National Grid ESO
Kyle Martin	National Grid ESO
William Gratton	National Grid ESO
John Prime	AMP Energy
April Chen	WSP
John Byrne	ENEL X
Eamonn Bell	SMS
Neil O'loughlin	Flexitricity
Stef Peeters	Centrica
Sarah Honan	ADE
Iain Nicoll	Elexon
Dan Williams	Kraken Flex
John Roberts	Scottish Power
Avi Aithal	ENA
Jeremy Yapp	BEAMA
Sebastian Blake	Octopus Energy
Mark Hamilton	SMS
Eddie Proffitt	MEUC
Emma Burns	Flexitricity
Chris Horn	My Energi
Mark Coley	Landis Gry
Nicholas Rubin	Elexon

Introduction

Kyle Martin (KM) welcomed everyone to the Working Group and participants introduced themselves.

KM set out the purpose of the session.

Agenda items included:

- Aggregator Telephony Requirements
- Accession into the Balancing Mechanism
- Overview of metering visibility required from ESO Control Room
- Current Meter Technical Specifications
- Initial Proposals and Methodologies Discussion

Overview of current Telephony Requirements for BM Participants

Following a request from a member of the group to define the requirements for telephony in relation to aggregators, Deepak Lala (DL) provided an overview of the current telephony arrangements.

DL highlighted that telephone dispatch is part of the NGENSO contingency despatch process, mostly utilised under two distinct conditions:

1. Planned BM system outages
2. Unplanned IT/System failures

Telephony is used as a last resort if the Electronic Data Logging route (primary instruction method for the BM) became unavailable. In instances where EDL is not available, the control room would look at the system requirements and instruct via telephone. There is provision for those instructions to be logged and followed through the settlements process. Reducing telephony requirements for providers may increase risk to the security of supply by reducing the ESO's ability to instruct volumes without a telephone contact point during periods where EDL is not available. Any risk around a reduction in security of supply through the relaxing of these requirements would be measured by modelling the estimated capacity that become inaccessible via telephone.

Control Room uses for Operational Metering and related telephony requirements

Operational metering data is utilised by the control room not only to inform real time grid balancing through system constraints management and dispatch, but it is also used downstream for system modelling and to look at short term demand. Defective operational metering data can create additional costs to the control room by creating additional actions to balance the grid due to unexpected deviations from the modelling used to forecast supply and demand, therefore, decreasing system stability. Telephony is also a useful tool for the control room in the event that operational metering data for significant volumes are not accurate, and therefore, they can call the providers telephone desk to request the data over the phone instead.

DL also noted the operational metering data cannot be subsidised by settlement metering data in the event of defective operational metering data. Due to regulatory requirements, the ESO control room are unable to view settlement metering data and use it for the same purposes as the operational metering data. Settlement metering is only used to calculate imbalanced positions and charges after the event and as part of a reconciliation process that runs over 14 months, and therefore, allows for errors to be identified and corrected so that parties with imbalanced positions can be updated accordingly. It is also that settlement data that is shared with network companies for calculation of DUoS, TNUoS and BSUoS as well.

The group then revisited the initial metering tolerances proposed in the first session and agreed that the preference is for the ESO to set out requirements at the aggregated metering level and not sub assets level.

Accessing the Balancing Mechanism

Nick Rubin gave an update on [P375](#) which is an extension to the Wider BM Access work and project TERRE. P375 allows metering equipment situated 'behind' the defined Boundary Point to be used for Settlement purposes in place of the Boundary Point Meter. Primarily, this allows balancing-related services on-site from smaller assets to be separated from current imbalance-related activities, more accurately reflecting the balancing-energy volumes provided by the Balancing Service Provider (BSP). Ed Farley explained that the current boundary metering tolerances that were proposed to the working group were derived from the proposals for settlement metering standards in P375, although more investigation is needed to understand the potential impact of these tolerances on the control room if they were also to be used by a boundary operational meter.

See below for proposed 'sliding scale' tolerances at the boundary operational meter:

Aggregated unit size	Overall Accuracy of unit	Read Frequency	Latency
>10MW & <=100MW	+/-1.0%	Once per second	≤5 seconds
>1MW & <=10MW	+/-1.5%	Once per second	≤5 seconds

Table 4 – Proposed BM operational metering standards – aggregated units

Group members provided feedback on the P375 changes and that the changes that P375 made has created a new opportunity that they were looking to take advantage of but there are still blockers such as:

- Finding a data collector that can collect the asset meter data and then feed that into the boundary settlement meter data collector which will then allow for the proper settlement calculations to be made.
- There is a lack of type 4 & 5 meters that meet current COP11 requirements (for settlement) which makes the market size much smaller for potential 'dual' data collectors to target. This reduces the incentive for data collectors to develop and provide those services.
- Customers need to be both half hourly metered and settled which is not currently mandatory. This significantly reduces the number of customers that are eligible to participate in VLP's. Mandatory half hourly settlement was earmarked to be implemented by 2025 but this target may now be pushed back which would impact the speed in which the industry sees the benefits of P375 changes.
- It is difficult to identify potential customers that already have half hourly metering.
- Some suppliers aren't in a position to facilitate half hourly settlement metering even if the customer is.

The group concluded that any proposals made regarding operational metering standards change should align with COP11 standards as there is a close synergy between the two. The group highlighted during the meeting that their preference is that the ESO only defines operational metering requirements for the boundary meter and not at the individual asset level, but with COP11 standards applying to individual asset meters there is a need to define whether or not certain elements of future proposals should set standards for individual asset meters as well.

Actions

1. Control room to model the potential impact of future sub-1MW aggregated units providing inaccurate operational metering data and how that would affect demand forecasting and number of manual workarounds taken. ESO to explore its tolerances to inaccurate operational metering data to ensure that any new standards guarantee these tolerances are not exceeded. Clarify desired ESO accuracy requirements overall for all BMU participants.
 - a. Estimate total volumes from aggregated assets in the BM
 - b. The likely behaviour of those assets at BMU level and how individual aggregated assets accuracies within the BMU could affect aggregated operational metering data.
2. Group to share information on the current average metering accuracy for most individual aggregated assets to ensure existing assets can meet future requirements.
3. ESO to clarify whether latency times are measured from the aggregated operational meter to control room or from the individual sub assets to control room.
4. Metering manufacturer members to respond to confidential survey disclosing where they perceive a sweet spot is in terms of providing the best accuracy whilst maintaining reasonable costs.
5. Group to look at COP11 requirements and how they could link into the working groups proposals on sub asset level metering. ESO to clarify their thoughts on this for the next session.

Next meeting

6th September 2022