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## UMS Material Error Monitoring

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### Unmetered Supplies User Group

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Summary **This paper provides the Unmetered Supplies User group (UMSUG) with a view of the latest UMS Material Error Monitoring (MEM) data, as well as analysis of this data. This paper also provides an overview of the current MEM process, upcoming Change Proposal (CP) and progress of the UMS Technical Assurance of Performance Assurance Parties (TAPAP) audit checks.**

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### 1. Background

- 1.1 At the March 2020 UMSUG meeting, an action was raised (127/05) for Elexon to ask the Performance Assurance Technique (PAT) owner for the MEM process to provide the latest aggregated data.
- 1.2 Elexon have completed the latest two quarters of the UMS MEM process (Q3 2020 and Q4 2020). With the UMS MEM data from these two quarters, Elexon have produced this paper which provides the aggregated UMS MEM data, as well as some analysis of the data.

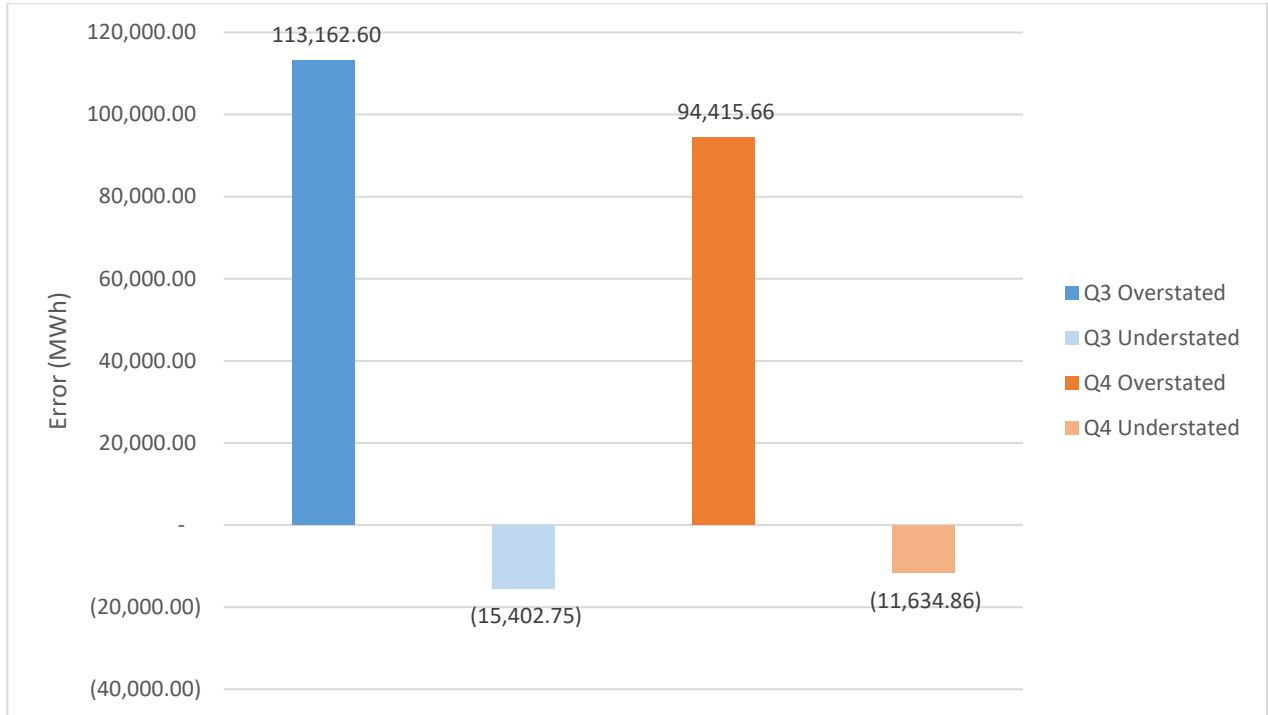
### 2. MEM Process Summary

- 2.1 MEM is one of the 'detective' [Performance Assurance Techniques](#) that operate within the [Performance Assurance Framework](#). MEM is designed to: estimate the impact and materiality of a Settlement error, monitor error levels over time, and estimate the contribution to overall market errors made by individual Parties and their Agents. The MEM process currently monitors UMS, as well as Energisation status, and erroneous large Estimated Annual Consumption (EAC) and Annualised Advances (AAs).
- 2.2 For UMS MEM, Elexon monitors the issue of erroneous values of UMS in the Non Half Hourly (NHH) market. The monitoring involves comparing UMS data from Unmetered Supplies Operators (UMSOs) and Non Half Hourly Data Aggregators (NHHDA) on a particular Settlement Date following the SF run.
- 2.3 The monitoring takes place quarterly and the dates used can be found in the UMS Monitoring Timetable on the [BSC Website: Material Error Monitoring](#).
- 2.4 On or shortly after the Settlement Date, all UMSOs provide Elexon with an extract of NHH UMS EAC values. Following the SF run for the Settlement Date, all Non Half-Hourly Data Aggregators (NHHDA) provide Elexon with files containing information on all UMS Metering System Identifiers (MSIDs). The UMSO and NHHDA data is then processed and compared by Elexon to determine the error in Settlement. Error is quantified in terms of overstated and understated EAC values by the NHHDA.
- 2.5 Any MSIDs that have error identified through a mismatch between the UMSO and NHHDA declared EAC values are compiled into summary reports that are distributed to the relevant UMSOs and Suppliers. Elexon expects the UMSO, Supplier and Supplier Agents to engage in communication with one another to proactively resolve any errors identified in time for the next quarterly report.
- 2.6 UMS MEM currently compares EAC values held by 21 UMSOs and 21 NHHDA.

### 3. UMS MEM Aggregated Data and Analysis

3.1 Graph 1 below provides an aggregated view of the total UMS error for Q3 and Q4 2020. The total gross error has been split into the total overstated and understated error for each quarter. The Settlement Dates that the snapshots for EAC values were taken on for Q3 and Q4 2020 were 10 August 2020 and 9 November 2020, respectively.

3.2

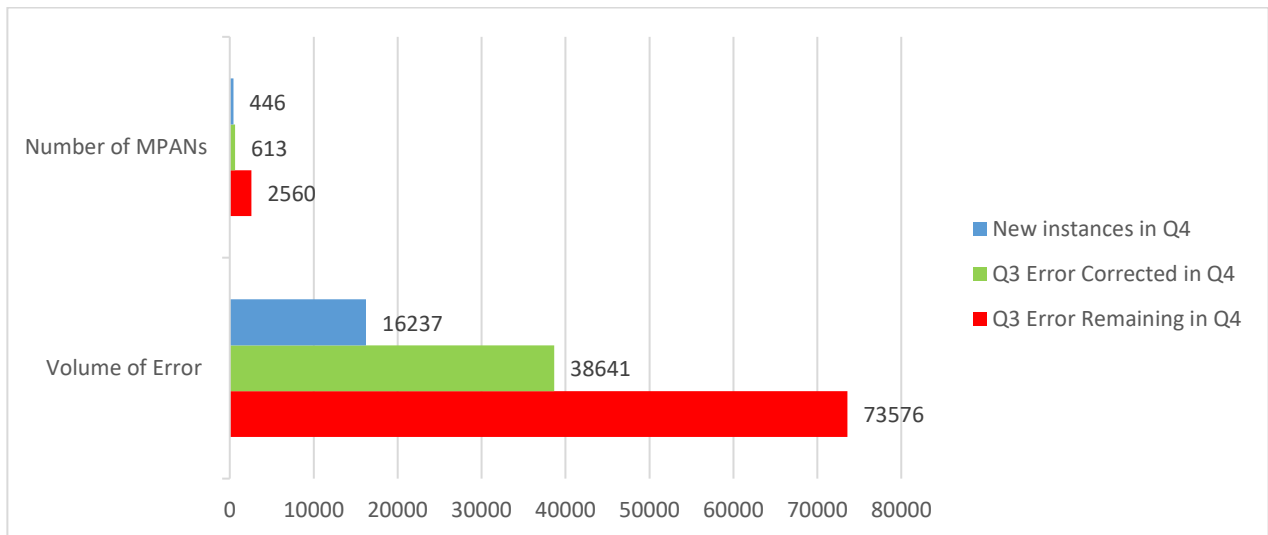


**Graph 1 – Total overstated and understated UMS error for Q3 2020 and Q4 2020**

3.3 With both overstated and understated error combined, the gross error for Q3 2020 was 128,565 MWh. The combined gross error for Q4 2020 was 106,050 MWh.

3.4 Graph 2 below provides a breakdown of the total error that comprises Q3 and Q4. In particular, the graph highlights the amount of error identified in Q3 that was either corrected or uncorrected by Q4, as well as new instances that were not present in Q3.

3.5

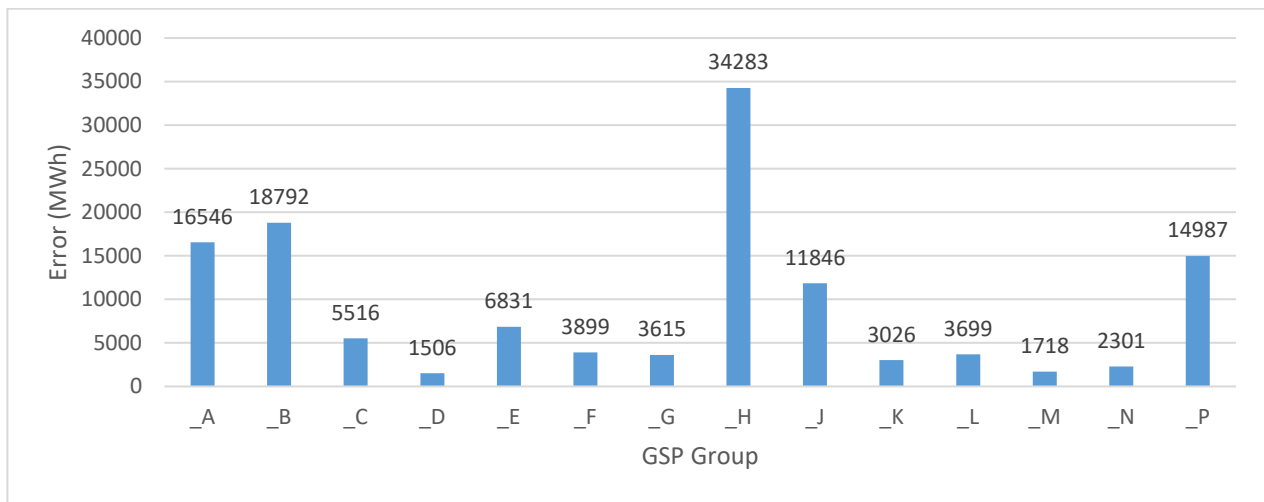


**Graph 2 – Error corrected/uncorrected between Q3 and Q4**

3.6 Approximately 57% of all error from Q3 was not corrected by Q4. Although Elexon are unable to provide a summary of how long these various unresolved instances have remained unresolved throughout previous quarters, Elexon can confirm that 1,267 of the 3,452 MSIDs in Q4 (37%) have crystallised error associated with them. The total crystallised error associated with these 1,267 MSIDs amounts to 7,144 MWh.

3.7 Graph 3 below provides a breakdown of the total error in Q3 by Grid Supply Point (GSP) Group. Elexon have utilised the data from Q3 for this graph due to it having a larger amount of erroneous instances to analyse.

3.8

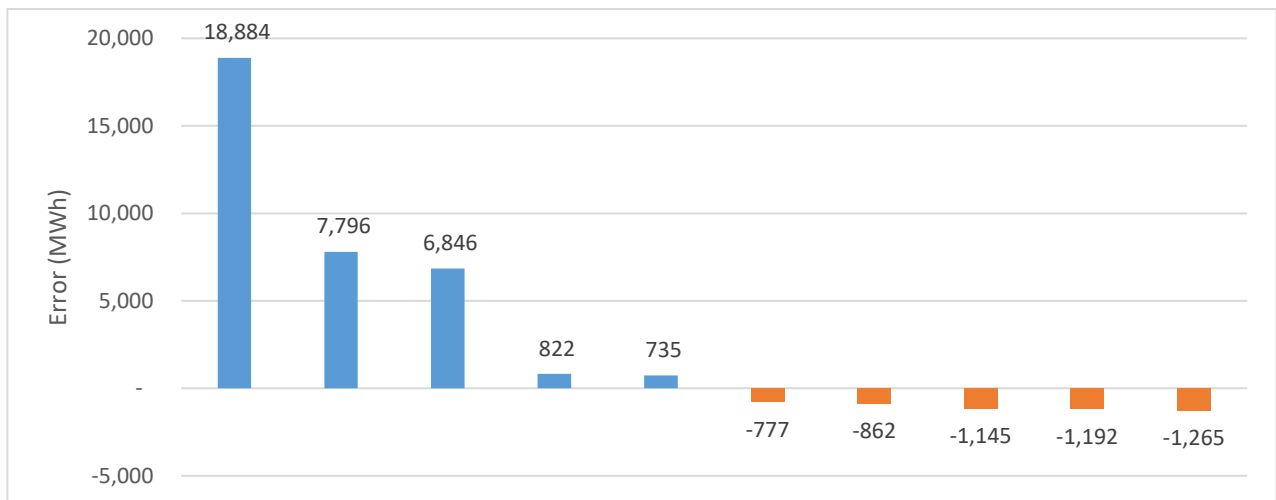


**Graph 3 – Total error by GSP Group (Q3)**

3.9 The GSP Group with the highest total error in Q3 was \_H (Southern), with a 27% share of the total error. GSP Group \_D (Merseyside and North Wales) had the lowest share of the total error, at 1%.

3.10 Graph 4 below provides a summary of the five largest overstated and understated erroneous instances in the Q3 period. As with the previous graph providing the GSP Group breakdown, the data from Q3 has been used for this graph due to the larger amount of erroneous instances to analyse.

3.11



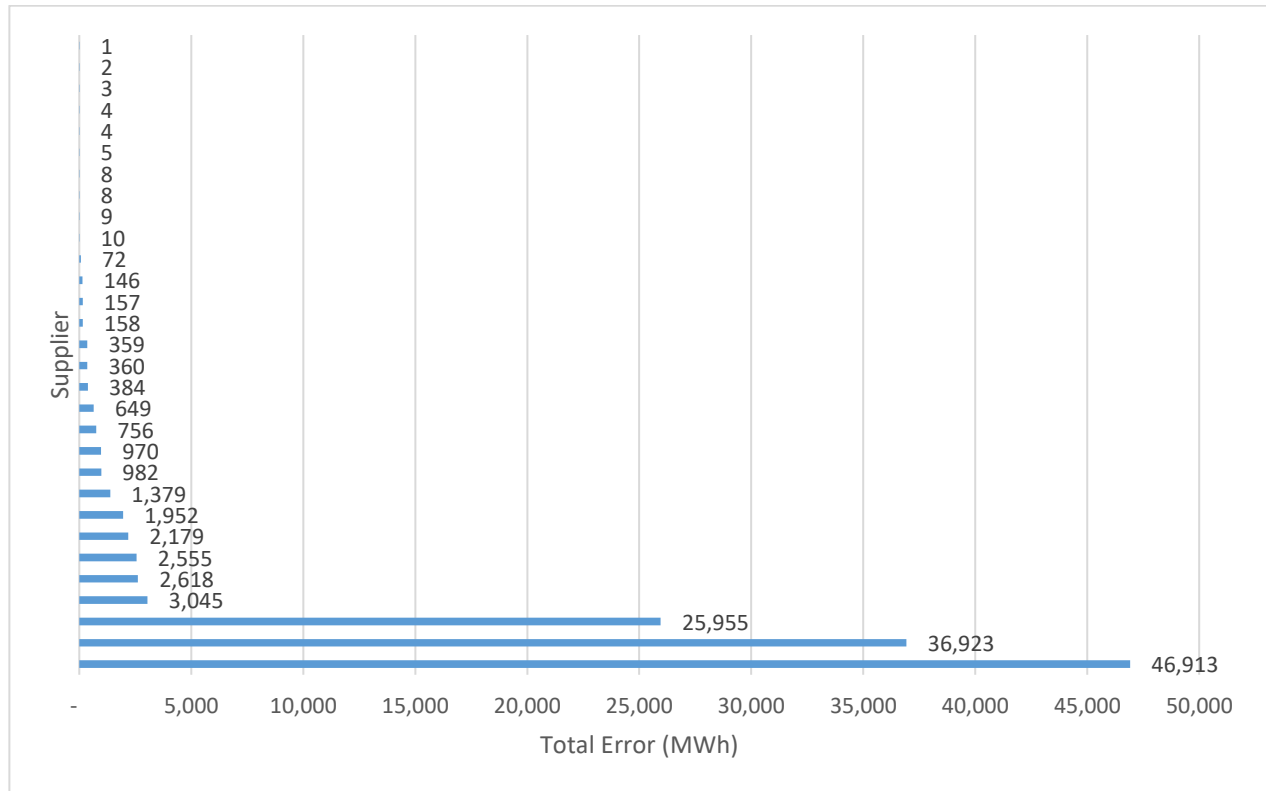
**Graph 4 – Five largest overstated and understated errors (Q3)**

3.12 The five largest overstated errors in Q3 amounted to 35,083 MWh. These five instances alone comprise 31% of the total overstated error in Q3. The five largest understated errors in Q3 amount to 45% of the total understated error in Q3.

3.13 Graph 5 on page 4 provides a breakdown of the total error associated with each Supplier that appeared in the Q3 reporting period (30 Suppliers). Note that due to the confidentiality of the data, the name of the Suppliers have been removed from the graph.

3.14 As with Graphs 3 and 4, Q3 has once again been used for this data set due to the larger amount of erroneous instances to analyse.

3.15



**Graph 5 – Total error per Supplier (Q3)**

3.16 The Supplier with the largest total associated error in Q3 had a 37% share of the total UMS error. The top three Suppliers with the largest total associated error in Q3 combined, had an 85% share of the total UMS error.

#### 4. Future plans for the MEM

- 4.1 Currently, the UMS MEM process is not formalised within the BSC. The process is conducted via an ad hoc data request. At the August 2020 PAB meeting, the PAB approved a recommendation for a Change Proposal (CP) to be raised that would formalise within the BSC the process by which ad hoc data is obtained under the MEM technique. Due to prioritisation of ongoing industry change, Elexon has not yet progressed the raising of the MEM CP.
- 4.2 Elexon are currently conducting the Risk 11 UMS Technical Assurance of Performance Assurance Parties (TAPAP) Audit Checks. A focus of this TAPAP is on the NHH data and error associated with the MEM. Elexon have already gained valuable insight into some of the common root causes for UMS error, as well begun considering improvements to the MEM process, based on conversations with UMSOs during the audits.
- 4.3 Elexon plan to provide its findings and recommendations to the PAB once all TAPAP checks have been completed and the findings report has been drafted. Elexon anticipate recommendations and improvements relating to the MEM process to coincide with the MEM CP.
- 4.4 An update will be provided to the UMSUG on the findings of the TAPAP checks once the report has been provided to the PAB.
- 4.5 Elexon would also like to take the opportunity while presenting this paper to obtain any feedback UMSUG members have on the MEM process. Any feedback received from the UMSUG will be considered in conjunction with the findings of the TAPAP checks, and may be reflected in the findings report.

#### 5. Recommendations

- 5.1 We invite the UMSUG to:
  - a) **NOTE** the analysis in the paper; and
  - b) **COMMENT** on the current MEM process, including suggestions for improvements.

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