

# Materiality Report for the year ended 31 March 2009

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# Introduction

This report sets out additional analysis of the key issues in the BSC Auditor's Statement of Significant Matters for the period ended 31 March 2009.

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# Materiality in the context of the BSC Audit

- The requirement for an audit is set out in Section H of the Code.
- Whether a specific issue will give rise to a qualification of the BSC audit opinion is a judgement made by the BSC Auditor. Factors which are considered include:
  - Materiality;
  - The nature of the issue itself; and/or
  - Whether the issue has been or will be corrected by the normal course of operation of Settlement, this includes the BSC Disputes process.
- The materiality threshold in respect of the overall audit opinion for the reporting period ended 31 March 2009, as set by the Panel, is 1,650,000MWh.
- The assessment of what is material is a matter of professional judgement and includes consideration of both the amount (quantity) and nature (quality) of misstatements.
- The information contained in this report does not form part of the BSC Auditor's opinion. This information is largely based on extrapolation from sampled data and will include a high level of estimation. The information is derived from the BSC Auditor's work in relation to the BSC Audit and does not represent an estimate of the total error in any individual category or across Settlement as a whole. While we acknowledge that this report will be published on the ELEXON website, this is for information only, should not be relied upon and cannot in any way serve as a substitute for enquiries and procedures which you will or should be undertaking for the purposes of satisfying yourselves regarding the BSC Audit. It may not be copied or disclosed to anyone without our prior written consent, which we may grant, withhold, or grant with conditions.

# Definitions

- The BSC Auditor applies the following definitions in the calculation of errors in Settlement which were defined by ELEXON in a paper to SVG (SVG20/247):
- **Gross Uncorrected Energy Error** ('Gross') is defined as the summation over the audit period of the energy error of each erroneous transaction, ignoring negative signs. It indicates the extent of the issue, in energy terms, but without reference to the impact of the issue on Suppliers. The gross error is determined before taking account of the GSP Group Correction Factor.
- **Supplier Energy Allocation Error** ('SEAE') represents the absolute summation across all active Suppliers of their net energy allocation error in the audit period. This takes the sign into account for each transaction (i.e. negative AA/EACs are netted off positive values), but ignores the sign when summing across Suppliers. It indicates the impact on Suppliers of the issue, in terms of erroneous energy allocation. Each Supplier operates in a number of GSP Groups, and may be advantaged or disadvantaged in any of the GSP Groups in which it trades. The SEAE is calculated after accounting for the redistribution of erroneous consumption between Suppliers across all GSP Groups affected.

# SSM 26: Erroneous values of Unmetered Supplies in the non half hourly market

## Materiality calculation performed

### Gross error – prior to the application of group correction factor (195,000 MWh)

- Extracts of data were taken from all UMSO Agents and all NHHDA Agents in order to undertake a data comparison. For the NHHDA data a standard script was provided by the NHHDA software developer and the data was collected from NHHDA Agents by ELEXON. The UMS data was collected from each individual UMSO by ELEXON, each UMSO being requested to submit a P0218 flow of all MPANs on their databases.
- Some adjustments were made to the data in order to ensure that a like with like comparison was being made. These included the following:
  - Duplicates were identified and adjusted (both within individual sets of data and across the population);
  - Steps were taken to ensure consistent treatment of Effective from dates of EACs;
  - Steps were taken to ensure consistent and appropriate treatment of TPRs (the comparison was performed at an overall MSID EAC level); and
  - Error relating to time periods outside of the coverage of the current audit were excluded from the estimate.
- A final adjustment was made to exclude a de minimus level of error in individual MSIDs of 5MWh or less.

## SSM 26: Erroneous values of Unmetered Supplies in the non half hourly market (continued)

Materiality calculation performed (continued)

### Gross error – prior to the application of group correction factor (195,000 MWh) (continued)

- The estimate of the error was made on an MSID by MSID basis by determining the difference in the EAC value and the impacted number of Settlement Days. The gross error represents that absolute value of the differences identified, ignoring negative signs. The estimate is based on calculating the extent to which the data held within Settlement differs from that recorded by the UMSOs. This has an implicit assumption that the UMSO records are the 'prime' source of data.
- The data comparison highlighted three main groups of data differences:
  - MSIDs recorded by UMSO Agents but not by NHHDA Agents (41 MSIDs);
  - MSIDs recorded by NHHDA Agents but not by UMSO Agents (297 MSIDs); and
  - MSID is recorded by both Agent and UMSO but the EAC value is differs (789 MSIDs).
- The graph on page 9 shows the number of in error MSIDs as a percentage of the Supplier's non half hourly Unmetered Supplies portfolio. The graph on page 10 analyses the gross error in MWh by GSP Group.

## SSM 26: Erroneous values of Unmetered Supplies in the non half hourly market (continued)

Materiality calculation performed (continued)

### SEAE error – after the application of group correction factor (83,000 MWh)

- An adjustment has been made to reflect the extent to which each Supplier operates within each individual GSP Group. PARMS data for the non half hourly market, and taken as an average over the 26 months of Settlement days within scope, has been used to determine the required adjustment on the original Metering Systems identified as in error. The graph on page 11 analyses the SEAE error by Supplier MPID.

### Estimate of extent to which error is unlikely to be corrected (67,000 MWh)

- The BSC Auditor has made a further adjustment in order to reflect the extent to which it is believed that these Metering Systems may be corrected by normal Settlement processes in the future. The estimated extent of correction is considered to be limited as weaknesses in the processes and controls in place to detect and resolve these exceptions have been identified. The annual confirmation process may identify some of these issues. However this has not yet been attempted and there is no set guidance on how any identified exceptions should be resolved.

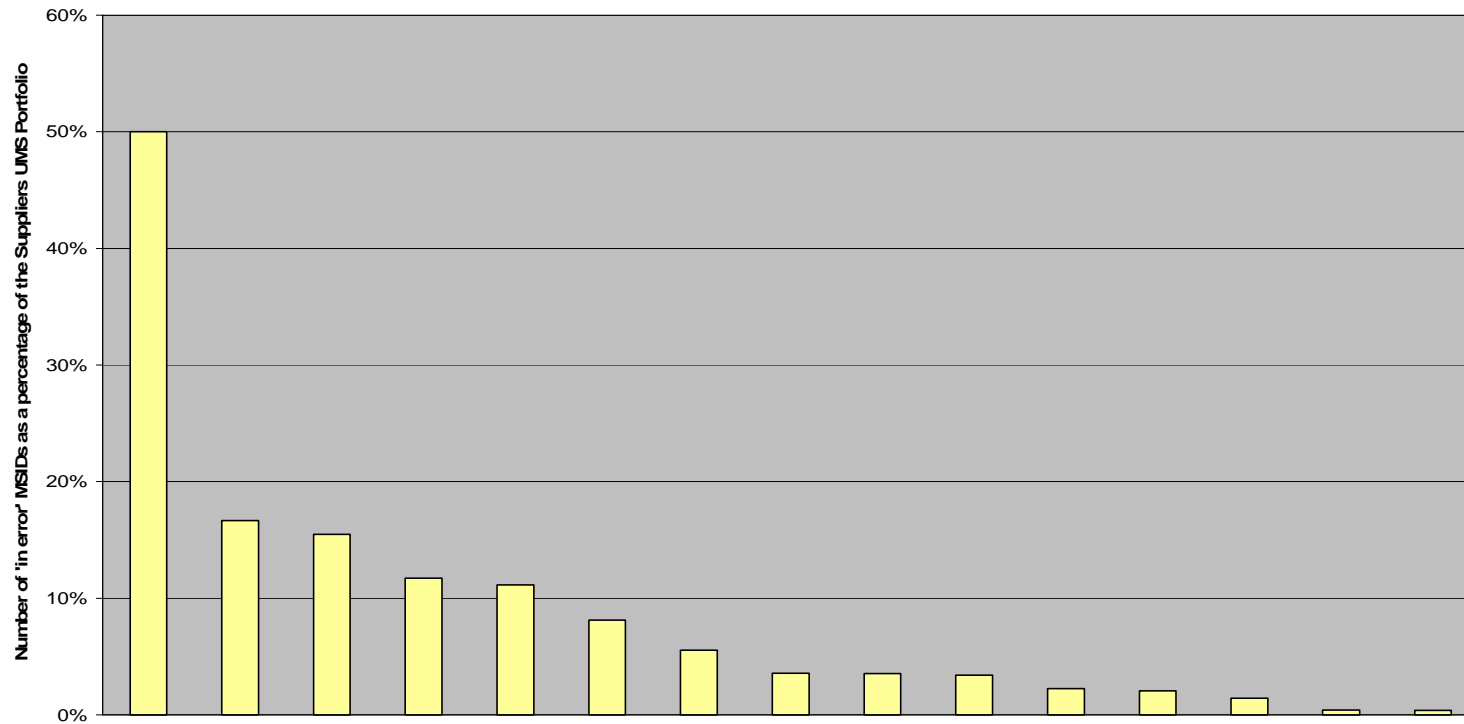
Period of error	Supplier's Energy Allocation Error	Capacity for correction %	Estimate of extent to which error is unlikely to be corrected
Passed Final Reconciliation	31,000	0%	31,000
Not yet passed Final Reconciliation	52,000	30%	36,000
	83,000MWh		67,000MWh

# SSM 26: Erroneous values of Unmetered Supplies in the non half hourly market (continued)

The Number of MSIDs considered to be in error by Supplier MPID as a percentage of the Supplier's NHH Unmetered portfolio

The graph shows the number of MSIDs identified as being in error from the data analysis. The error is described on pages 6 and 7 of this report.

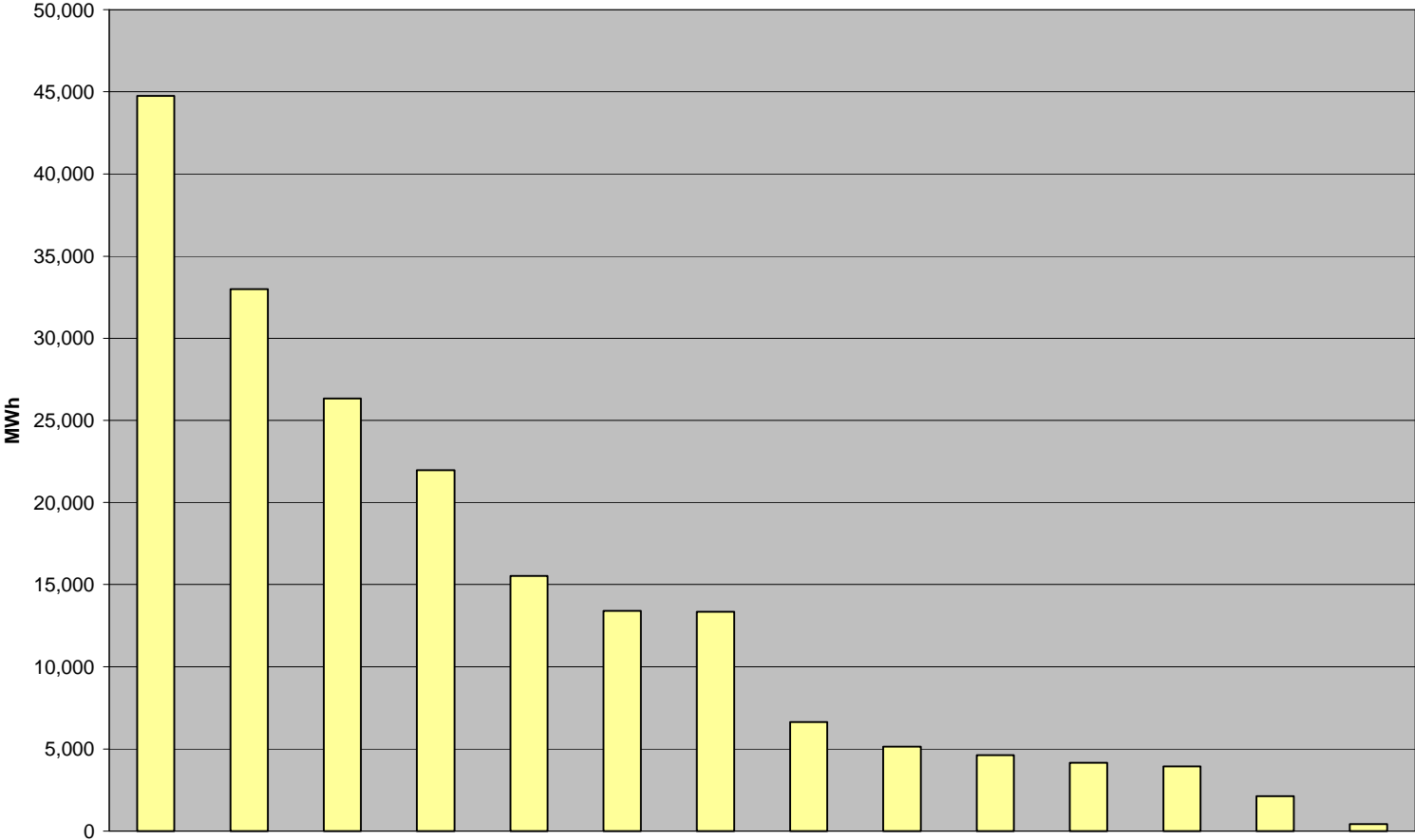
Data for one Supplier has been removed as the relative small size of their NHH Unmetered portfolio to the number of MSIDs considered to be in error distorted the overall graph.



# SSM 26: Erroneous values of Unmetered Supplies in the non half hourly market (continued)

## Gross error – by GSP Group

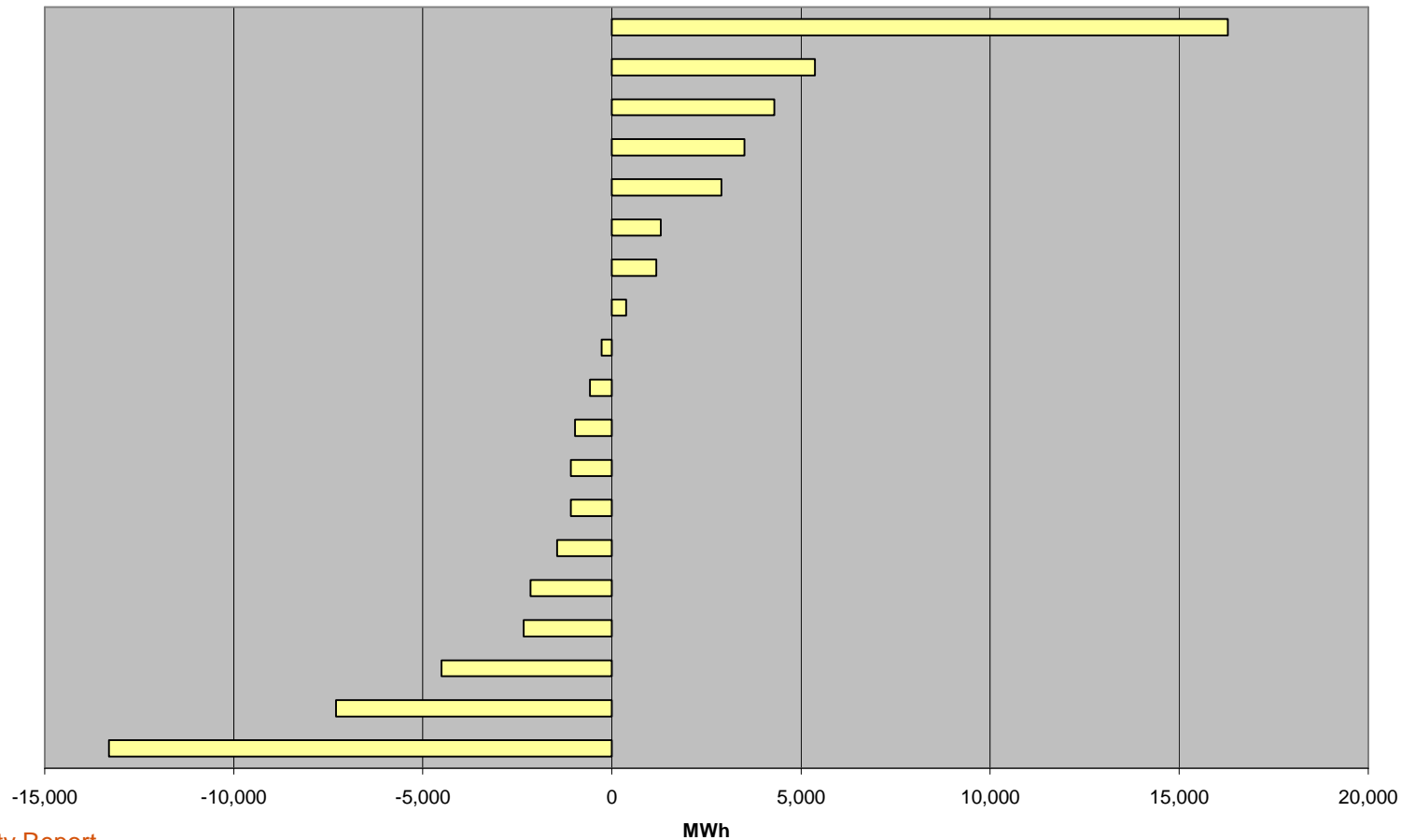
The graph shows the level of gross Unmetered Supplies error by GSP group. This error is prior to the application of GSP Group Correction Factor. The error is described on pages 6 and 7 of this report.



# SSM 26: Erroneous values of Unmetered Supplies in the non half hourly market (continued)

## Supplier's Energy Allocation Error – Supplier MPID distribution

The graph shows the level of SEAE Unmetered Supplies error by individual Supplier MPID. This error is after the application of GSP Group Correction Factor, as described on page 8. The graph is designed to demonstrate the impact of the error on Suppliers, a Supplier with a negative value on the graph has in effect received a net reduction in their allocated non half hourly energy volume.



## SSM 28: Erroneous values of EACs and AAs

### Materiality calculation performed

#### Gross error – prior to the application of group correction factor (909,000 MWh)

- An EAC/AA model database is maintained by ELEXON and is used to monitor this issue for reporting to PAB and TDC. ELEXON obtain an extract from NHHDA Agents on a monthly basis which is designed to interrogate their NHHDA databases to identify all Metering Systems with an EAC and/or AA value in excess of a threshold parameter specific to each relevant Profile Class. The thresholds were established by PAB.
- Metering Systems with EAC and AA values in excess of the agreed threshold parameters may not be erroneous in themselves. For example there are instances where the Profile Class has been allocated to the Metering Systems incorrectly and where Metering Systems are being traded in error in the non half-hourly market rather than the half-hourly market. Hence ELEXON provides details of those Metering Systems with large EAC/AA values above the Profile Class-specific threshold parameters to Suppliers and requests that the Supplier identifies those which represent genuine consumption. These items, and Unmetered Supplies, are excluded from the computer model.
- The EAC/AA model analyses those instances not deemed to be genuine and provides a breakdown by Settlement Day by Supplier and by GSP Group. The BSC Auditor uses the output of the model to establish the gross error for all Settlement days in the audit scope. The gross error has been split out by GSP Group and Supplier MPID on pages 14 and 15. The graph on page 15 also shows the number of in error MSIDs by Supplier MPID (approximately 7,000 in total).

#### SEAE error – after the application of group correction factor (437,000 MWh)

- The EAC/AA model database also uses market share tables based on PARMS data to take account of GSP group correction factor - essentially it calculates a 'materiality amount' for each day for each Supplier for each GSP Group. The absolute value for each Supplier in the period in question is totaled in order to calculate the impact of the issue in the market. The level of SEAE error by individual Supplier MPID has been set out on page 16.

## SSM 28: Erroneous values of EACs and AAs (continued)

### Materiality calculation performed (continued)

#### Estimate of extent to which error is unlikely to be corrected (213,000 MWh)

- The BSC Auditor has made a further adjustment in order to reflect the extent to which it is believed that these MSIDs may be corrected by normal Settlement processes in the future. In this case, where relevant, these include the current Disputes process for this issue. The BSC Auditor has analysed the extent to which Dispute runs which have already been processed have proved to be effective in resolving the error.

Period of error	Supplier's Energy Allocation Error	Capacity for correction %	Estimate of extent to which error is unlikely to be corrected
Passed Dispute Run and crystallised in Audit period	48,000	0%	48,000
Passed Final Reconciliation (prior to Dispute Run)	96,000	50%	48,000
Not yet passed Final Reconciliation	293,000	60%	117,000
	437,000MWh		213,000MWh

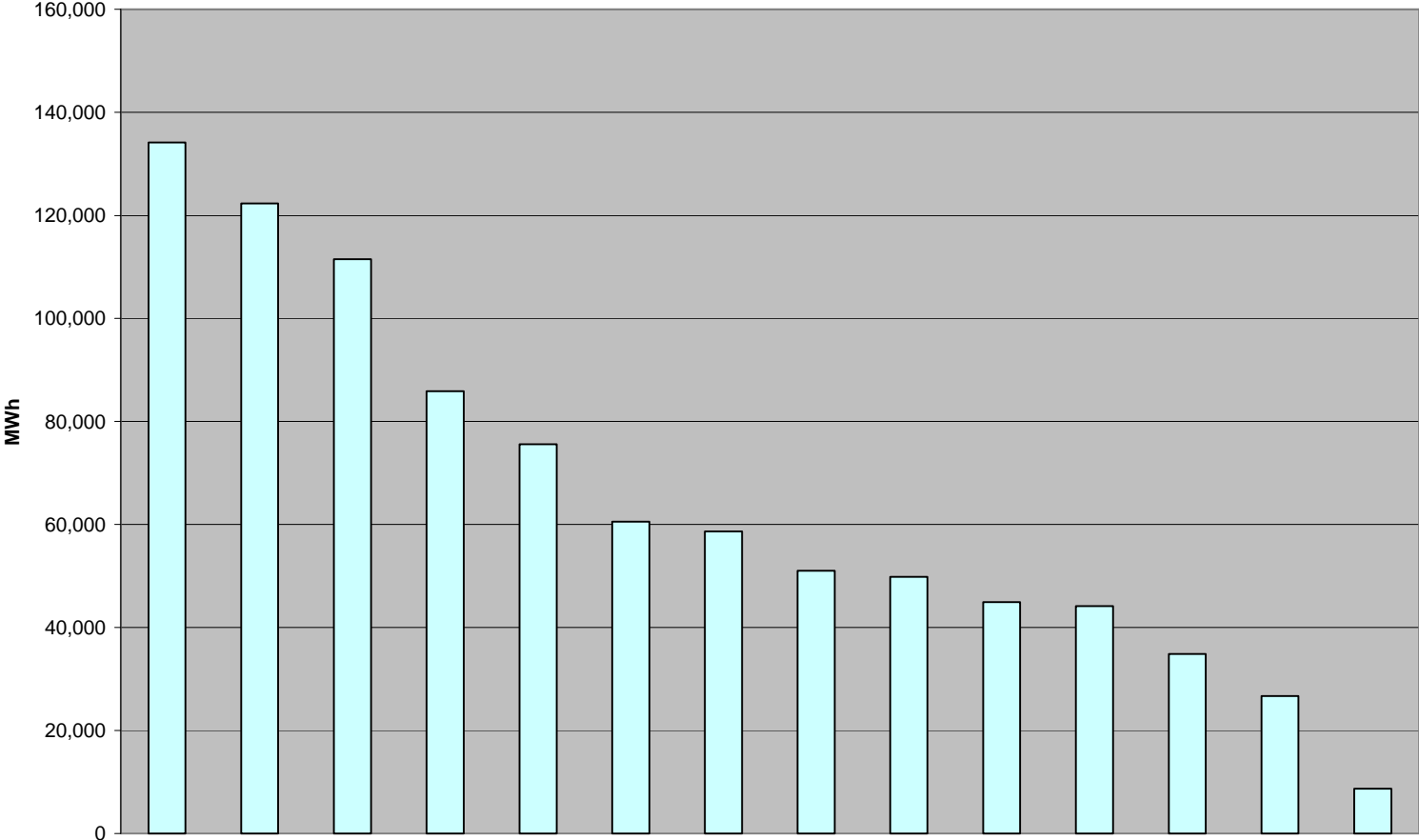
We would note that a data archiving exercise performed by one NHHDA Agent has led to a potential overstatement of the error as reported above. Based on an additional investigation we understand this overstatement to be approximately 10 to 15% at the Gross and SEAE level. Were this to be taken into account the level of unlikely to be corrected error would be in the region of 181,000MWh to 192,000MWh, which would still represent a significant increase on the previous period.

The graphs on the following pages are based on the overstated position taken directly from the EAC/AA model database.

# SSM 28: Erroneous values of EACs and AAs (continued)

## Gross error – by GSP Group

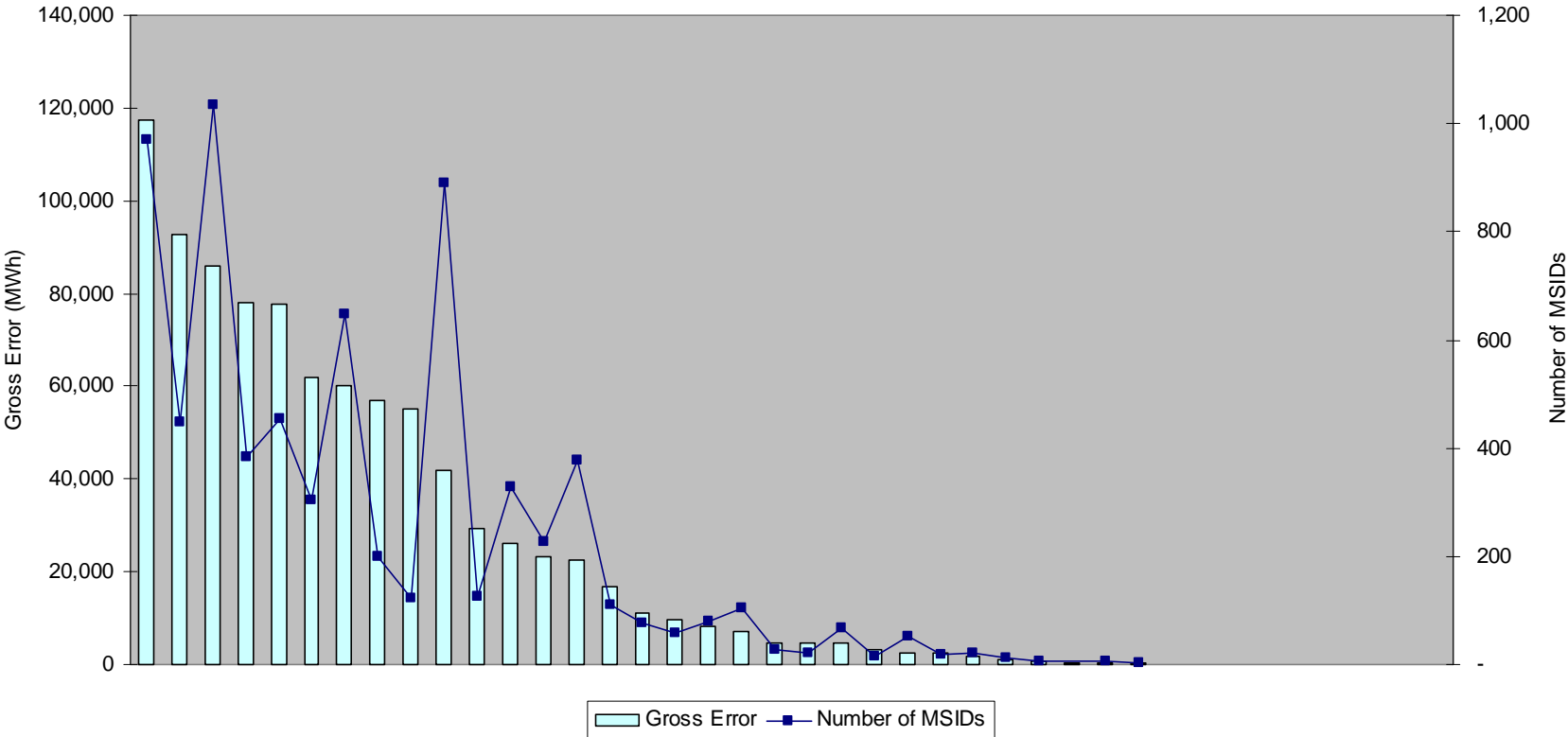
The graph shows the level of gross EAC/AA error by GSP Group. This error is prior to the application of GSP Group Correction Factor, as described on page 12.



# SSM 28: Erroneous values of EACs and AAs (continued)

## Gross error and number of MSIDs impacted by error – by Supplier MPID

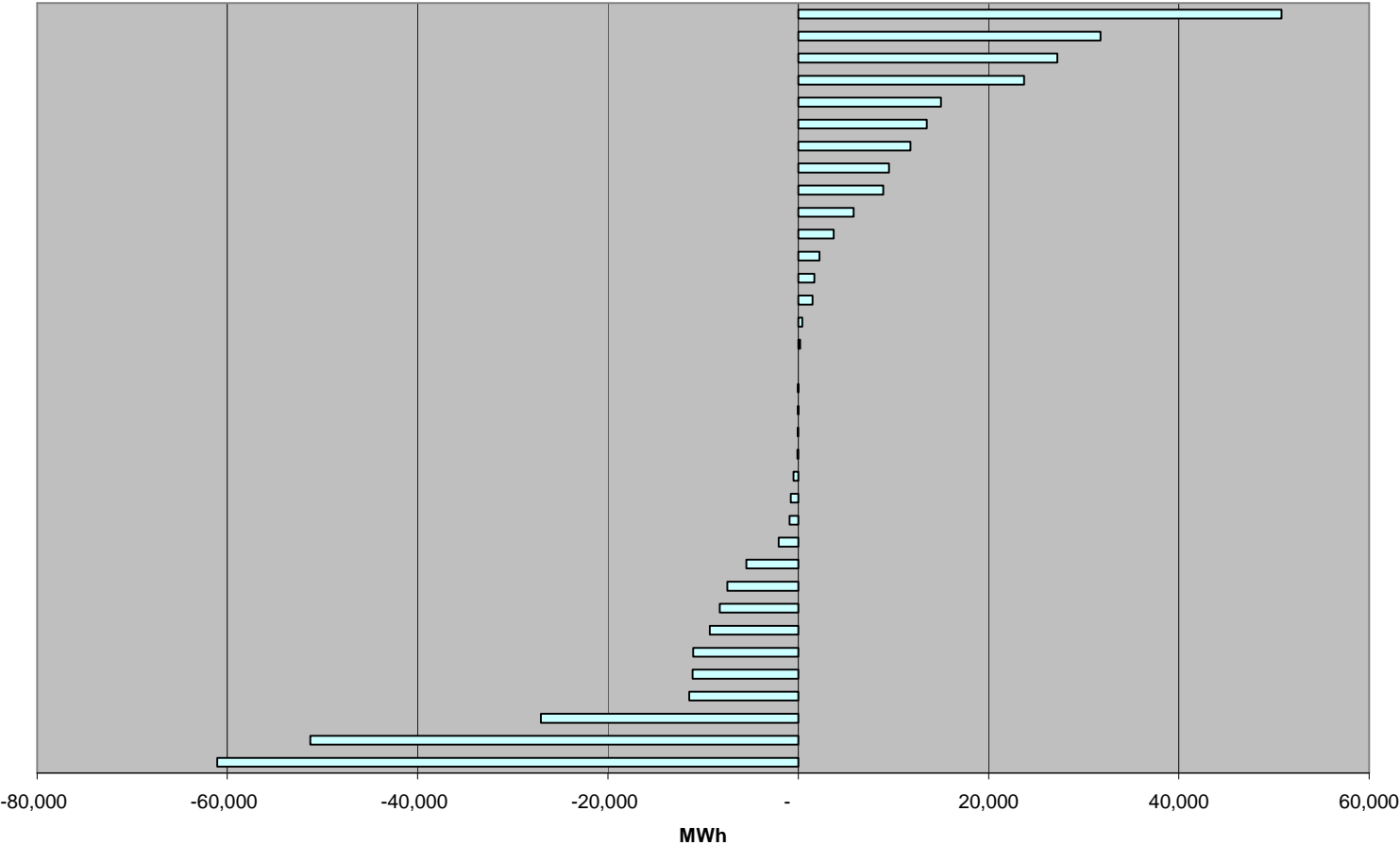
The graph shows the level of gross EAC/AA error by individual Supplier MPID and the number of Metering Systems that have been identified as having an EAC/AA error by individual Supplier MPID (approximately 7,000 as set out on page 12). This error is prior to the application of GSP Group Correction Factor.



# SSM 28: Erroneous values of EACs and AAs (continued)

## Supplier's Energy Allocation Error – Supplier MPID distribution

The graph shows the level of SEAE EAC/AA error by individual Supplier MPID. This error is after the application of GSP Group Correction Factor, as described on page 12. The graph is designed to demonstrate the impact of the error on Suppliers, a Supplier with a negative value on the graph has in effect received a net reduction in their allocated non half hourly energy volume.



# SSM 29: Inaccurate energisation status for non half hourly Metering Systems

## Materiality calculation performed

### Gross error – prior to the application of group correction factor (273,000 MWh)

- An extract was taken from all NHHDA Agents at a point in time for the final reconciliation run for Settlement Day 26 December 2007. This extract identified those Metering Systems that were recorded in Settlement as de-energised but were potentially energised - the 'at risk' population. This 'at risk' population was divided into two parts, the 'Long Term D' (Metering Systems that had been de-energised since 1998) and 'Non Zero EAC' (Metering Systems that were recorded in Settlement as de-energised for a lesser period).
- Suppliers were required to investigate these Metering Systems and to provide an indication as to which were, in the Supplier's view, erroneously classified. Based on these returns an error rate was established that could be applied to the 'at risk' population. The BSC Auditor performed follow up work which indicated that this error rate was reasonable based on the information provided by Suppliers. The in error population has been analysed by Supplier MPID on page 19.
- The estimate of the current error has been established by applying an average annual consumption level of 6MWh to the estimate of the number of Metering Systems that are in error. This has been extrapolated over those Settlement Days covered by the audit scope.
- The number of 'at risk' Metering Systems identified and the number remaining after the application of the estimated error rate are set out below.

	'At risk' population	Metering Systems estimated as in error
Non zero EAC	325,631	18,206
Long term D	9,354	46

## SSM 29: Inaccurate energisation status for non half hourly Metering Systems (continued)

Materiality calculation performed (continued)

### SEAE error – after the application of group correction factor (164,000 MWh)

- An adjustment has been made to reflect the extent to which each Supplier operates within each individual GSP Group. PARMS data for the non half hourly market, and taken as an average over the relevant period, has been used to determine the required adjustment on the original Metering Systems identified by Suppliers as in error. The graph on page 20 analyses the SEAE error by Supplier MPID.

### Estimate of extent to which error is unlikely to be corrected (121,000 MWh)

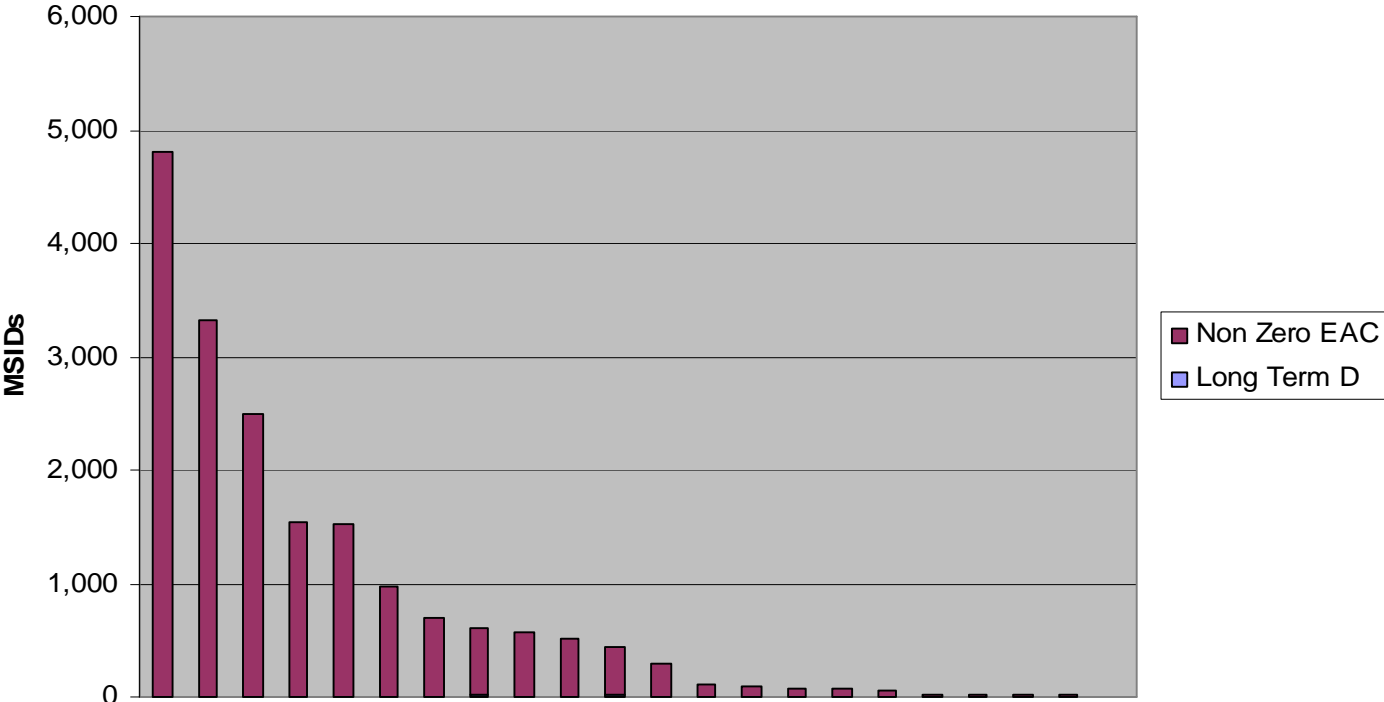
- The BSC Auditor has made a further adjustment in order to reflect the extent to which it is believed that these Metering Systems may be corrected by normal Settlement processes in the future.

Period of error	Supplier's Energy Allocation Error	Capacity for correction %	Estimate of extent to which error is unlikely to be corrected
Passed Final Reconciliation	77,000	0%	77,000
Not yet passed Final Reconciliation	87,000	50%	44,000
	164,000MWh		121,000MWh

# SSM 29: Inaccurate energisation status of non half hourly Metering Systems (continued)

## Number of MSIDs by Supplier MPID considered to be in error

The graph shows the number of MSIDs identified as being in error by ELEXON (for those MSIDs considered to be either 'long term de-energised' or for which a 'non zero EAC' has been included in Settlement). Data is shown for an extract at a point in time for the final reconciliation run for Settlement Day 26 December 2007.





# Aggregation of SEAE error

## Supplier's Energy Allocation Error – Supplier MPID distribution

The graph shows the level of SEAE error by individual Supplier MPID. This error is after the application of GSP Group Correction Factor. The graph is designed to demonstrate the impact of the error on Suppliers, a Supplier with a negative value on the graph has in effect received a net reduction in their allocated non half hourly energy volume.

The EAC/AA element of this graph is based on the overstated position taken directly from the EAC/AA model database as detailed on page 13.

**Aggregation of SEAE error (showing only Suppliers with aggregated error +/- 5,000 MWh)**

