PUBLIC

Technical Assurance Audit Report

Late and Missing Smart MTDs



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ELEXON

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LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

Executive Summary

ELEXON undertook an audit investigating late and missing Smart MTDs focusing on non-compliances with BSCP514[1], which have a material impact on Risk 006 and Risk 012. Risks detailed below in Section 1 – Background and Risk. Our audits therefore focused on the following sections of BSCP514:

- 5.2.2 'New Connection – Installation'
- 5.3.4 'Reconfigure or Replace Metering System'
- 6.2.2 'New Connection'

As expected our audit site work has validated the failures reported through ELEXON's 'Smart Meter Technical Detail Report'. We also identified additional issues contributing to these risk areas. We also sought to capture and understand the main root causes driving these issues.

ELEXON was also able to gain a better understanding of the risk presented by 'Off the Shelf' market participants and the associated operating model. We have provided further detail around this risk within Section 4 'Off the Shelf' Risk.

Table 1: Observed Non-Compliances

Non-Compliance	BSC/BSCP Ref
MTDs sent outside of BSCP514 timescales	BSCP514 (5.2.2 & 5.3.4)
Undertaking Meter exchanges without a valid appointment	Section J 4.1.2
MTDs never issued	BSCP514 (5.2.2 & 5.3.4)

Table 2: Common root causes identified

Root Cause
Inadequate training/skilled resource
Lack of operational knowledge
Teething issues with the NHHMOA / Management Service Provider
Supplier lead commercial agreements instigating retrospective Agent appointments
Lack of robust BAU processes resulting in manual work arounds and poor quality assurance of data

[1] SVA Meter Operations for Metering Systems Registered in SMRS

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LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

1. Background and Risk

The performance of eight NHHMOAs in respect of sending late MTDs was highlighted as a concern through ELEXON's Smart MTDs Report at its May 2018 PAB meeting PAB208/04.

Under ELEXON's 2019/20 Risk Evaluation Register (RER), existing risks relating to the transfer and processing of MTDs have been superseded by risks Risk 006 and Risk 012 (detailed below). For these risks, ELEXON forecast the associated gross material impact in terms of the gross misstatement of energy volumes. This provides a combined expected forecast impact of £14.2m and a combined upper plausible impact forecast of £34.1m of gross material misstatement.

Risk ID	Risk Category	Risk Sub-Category	Risk Title – The risk that…	Forecast Impact	Upper Impact
006	Metering	MTDs Transfer & Processing	On a change of agent, Meter Technical Details are not transferred or processed correctly or at all, such that parties do not use the latest Meter Technical Details	£8.0m	£17.0m
012	Metering	MTD Quality	SVA Metering System technical details are created incorrectly	£6.2m	£17.1m

More information on these risks is available through ELEXON's new risk visualisation tool (RVT). ELEXON developed this tool to help customers identify where Settlement Risks commonly occur in the BSC processes. The diagrams in conjunction with the RER provide a guide to where Settlement Risks may occur in BSC processes.

ELEXON notes that as the smart rollout continues to ramp up the impact of poor performance will become more significant.

They key objective of our audit activity was to:

- Validate the exceptions highlighted by the Smart MTDs report;
- Identify the root causes for the validated non-compliances;
- Quantify the material impact of late and missing MTDs; and
- Determine next steps in order to address non-compliances, such as through Error and Failure Resolution (EFR).

ELEXON notes that late or missing MTDs have the potential to impact Settlement accuracy; for example, where Data Collectors don't hold valid MTDs required to process readings for Settlement, or where gaining Meter Operator Agents do not have MTDs to send to the new DC on a change of DC. Missing MTDs can result in a significant impact to Settlement even where instances are resolved before RF (Final Reconciliation Settlement Run). This misstatement can subsequently have a direct impact on Parties' ability to forecast consumption accurately. As with late and missing MTDs, failures in registering or notifying new connections or the replacement of Metering Equipment can result in significant Settlement impacts.

ELEXON also notes that MTD corrections (also tracked by the smart MTD report) can be an indicator of the risk that MTDs being processed for these Meter Exchange events may not be accurate. Inaccurate MTDs present the risk that Settlement data processed by DCs may be inaccurate or attributed to the incorrect Metering System ID (MSID).

- TAPAP audits were undertaken investigating three NHHMOAs with respect of poor performance in the transfer of MTDs following installation of SMETS 1 Meters.
- The PAB noted that it was particularly interested in potential risk and failures around the 'Off the Shelf' model. This is covered in greater detail within Section 4 'Off the Shelf' Risk.

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2. Market Wide Performance

2.1 Late smart MTDs is a market wide issue and we have little assurance over the volume of MTDs which may never be issued post installation. Late MTDs are now routinely reported at a Market level by ELEXON's Smart MTDs report.

2.2 Overall Market performance with respect to late or missing MTDs (see Figure 1) has declined over the last five years. As performance continues to decline, the associated material error and misstatement of energy volumes has and, will continue, to increase.

2.3 Further to the material impact of this misstatement; ELEXON notes that failures and underperformance in respect of the transfer of MTDs also frustrates a number of key Data Collection, data processing, Change of Agent and Change of Supplier processes.

Figure 1: Market Wide Performance - March 2013 to December 2018 by Settlement Run

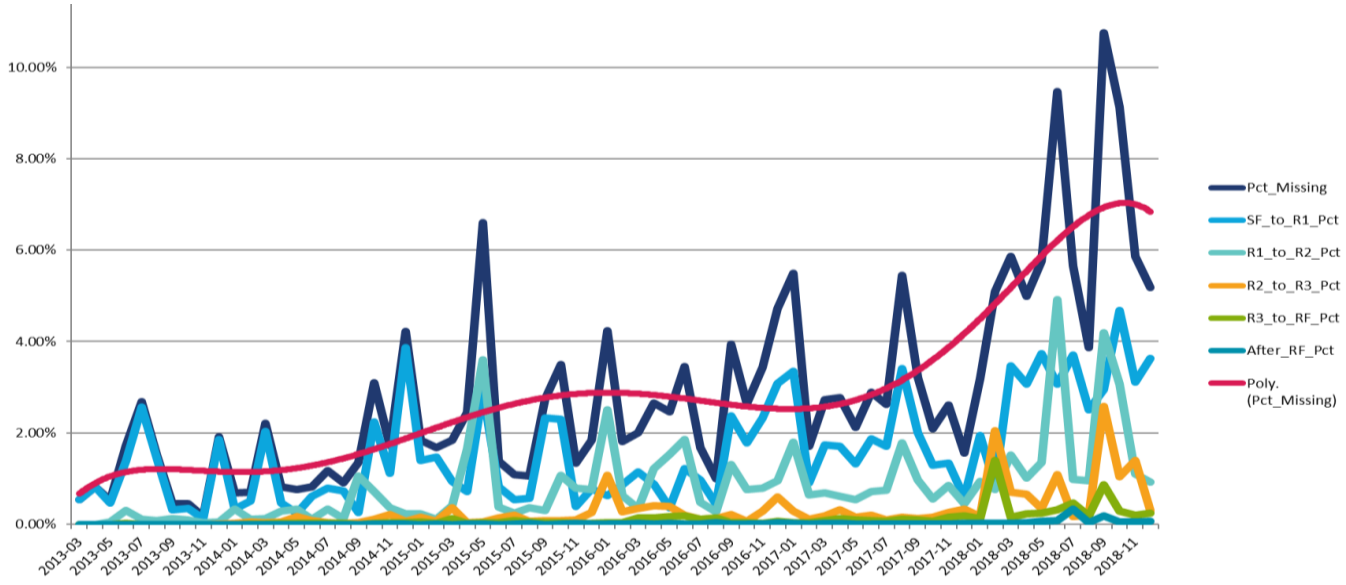
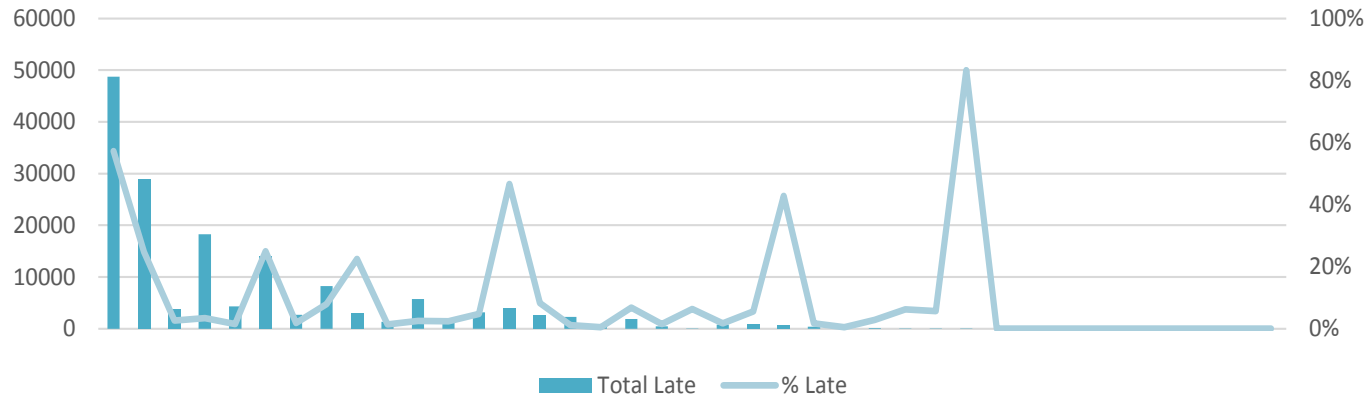


Figure 2: Aggregate Market Wide Performance by NHHMOA (MPIDs redacted) - 2018



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3. Key Audit Findings

3.1 ELEXON undertook the first round of the Technical Assurance of Technical Assurance Parties (TAPAP) audit site visits into 'Late and Missing Smart Meter Technical Details (MTDs)' between November 2018 and January 2019. Our audits targeted three Non Half Hourly (NHH) Meter Operating Agents (MOAs) and one managed service provider (selection criteria was provide within the scope paper presented at the August 2018 PAB meeting). Two additional audit site visits are currently planned to be delivered against this area in 2019.

Non-Compliance 1 – MTDs sent outside BSCP514[2] timescales

3.2 As expected following the analysis undertaken for in the TAPAP scoping report, all audited NHHMOAs had observable instances of MTDs sent outside the obligated timescales.

3.3 This is non-compliant with:

- BSCP514 5.2.2 'New Connection – Installation'
- BSCP514 5.3.4 'Reconfigure or Replace Metering System'

3.4 ELEXON notes that for all audited NHHMOAs the majority of issues resulted in the first year of operations due to a lack of operational knowledge, poor internal processes and inadequate resourcing. These issues were exacerbated by a lack of focus on data quality and the impacts such errors have on Settlement.

3.5 ELEXON notes that such instances can have a material impact on the completeness and accuracy of Settlement even where they are resolved by RF.

Non-compliance 2 – Undertaking Meter exchanges without a valid appointment

3.6 This is non-compliant with:

- Section J 4.1.2 'Appointment and Replacement of Party Agents'

3.7 ELEXON notes that such instances can frustrate and confuse the appointment process. Instances have been observed whereby such practices have resulted in gaps in appointment periods where no Party Agent was appointed to a Metering System. Likewise, instances were observed where this practice resulted in overlapping appointment periods where multiple Meter Operator Agents might believe that they are the appointed Party Agent. This can also result in confusion within the Supplier hub in respect of which Party Agent is responsible for a given Metering System.

3.8 The Performance Assurance Board has directed ELEXON to undertake further analysis in respect of backdated Supplier appointments in order to provide a view of market wide performance in this area. It is anticipated that this analysis will be published ahead of the May 2019 PAB meeting.

[2] BSCP514: SVA Meter Operations for Metering Systems Registered in SMRS

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LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

Non-compliance 3 - Undertaking Meter exchanges without sending the relevant data flows

3.9 This is non-compliant with:

- Section J 4.1.2 'Appointment and Replacement of Party Agents'
- BSCP514 5.2.2 'New Connection – Installation'
- BSCP514 5.3.4 'Reconfigure or Replace Metering System'

3.10 Such instances of course pose a significant risk in that where MTDs are never sent material errors in recording consumption data may persist for a significant period. The Performance assurance board expressed particular concern in respect of this issue both because of the significant impact such instances can have on the completeness and/or accuracy of Settlement and because such instances are hard to identify.

Observation 1

3.11 ELEXON identified mismatches between Meter Operator Agents' in-house inventory/installations tracker and data extracted from the DTN. This further highlights concerns around data quality and the absence of robust controls in place to ensure good data quality is maintained.

Observation 2

3.12 ELEXON noted an unusually high percentage of instances of an audited NHHMOA reporting the final read for the removed Meter to be "0" following a Meter exchange. It was subsequently validated that at least some of these instances were erroneous. In the observed instances, the DC had invalidated the read and submitted an estimate. However, where the DC does not invalidate the read there is the potential for an erroneous Annualised Advance (AA) being created.

3.13 The Performance Assurance Board has highlighted this as an issue of particular concern. It is noted that even where the DC is able to replace such erroneous readings with an estimate, it will still require additional work to be carried out by the DC. Furthermore, in instances where a reading had not been processed for a Metering System for a significant period of time, the estimate used may be very inaccurate.

3.14 The Performance Assurance Board has directed ELEXON to undertake further analysis in respect of this "0" removal read issue in order to provide a view of market wide performance in this area. It is anticipated that this analysis will be published ahead of the May 2019 PAB meeting.

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4. 'Off the Shelf' Risk

4.1 While reducing the barrier to entry, which is in positive in principle, the off the shelf business model can allow new businesses to enter the electricity market with no prior expertise, or appropriately trained resource available.

4.2 While this is not always the case, we have validated the risk of this occurring through our audit site work. During the audits we noted that while the business maturity of the "off the shelf" NHHMOAs had progressed and improved during operation, the early stages of operation incurred a significant amount of material failures and associated impacts.

4.3 ELEXON notes that it may be useful to compare the performance of "off the shelf" and traditionally Qualified MOAs, in context of how long the MOA had been operating, in order to better validate the risk presented by this business model.

4.4 We note that we cannot confirm the commercial arrangements, which endure between NHHMOAs and the entity, which took the NHHMOA's MPID through Qualification.

4.5 It is clear that while big contributors, "off the shelf" MOAs are not the only Party Agents contributing significant volumes to the risks investigated by this TAPAP audit.

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5. Recommendations

The Performance Assurance Board agreed the below recommendations at its February 2019 meeting:

a) Error and Failure Resolution (EFR) is not proposed to be turned on for any of the NHHMOA MPIDs audited but it is proposed that all NHHMOAs' performance (in respect of percentage and volume of late MTDs) should be monitored closely over the coming year.

b) Suppliers associated with highlighted appointment issues will be contacted so that ELEXON might better understand the root causes for these commercial decisions.

c) New NHHMOAs which are currently found to be missing MTDs which were never issued, will be notified of who the installing MOA was and advised to chase missing MTDs by ELEXON's TAPAP team.

d) ELEXON should draft and publish guidance (by end of March 2019) focused on Suppliers around back-dating appointments and the risks associated with some of the operational practices observed through this audit.

EFR will be switched on against risk (Risk 006[3]) for any NHHMOA found to be in breach of a new 'policy', currently being designed by ELEXON to work in conjunction with the new 2019/20 Risk Operating Plan. Updates regarding the development of these polices will be brought before the PAB by ELEXON's Risk Team. The findings from these TAPAP audits will be fed into the design of the Risk 006 policy, and ELEXON will engage with the PAB to agree the performance levels expected from Parties, which will be mandated under this policy.

[3] The risk that on a change of agent, Meter Technical Details are not transferred or processed correctly or at all, such that parties do not use the latest Meter Technical Details resulting in Erroneous or estimated data in Settlement.

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Appendix A – Associated Settlement Risks and Balancing and Settlement Code (BSC) sections

Smart Settlement Risk SMSR0006 *(Interim)*

"The risk that MTDs are inaccurate or missing as a result of MOA processes resulting in estimate or erroneous data entering Settlement."
At the point the 2019/20 Risk Evaluation Register goes live on 1 April 2019 the above interim risk will be superseded by the following risks:

Risk 006

Category: Metering

Sub-Category: MTDs Transfer and Processing

"The risk that on a change of agent, Meter Technical Details are not transferred or processed correctly or at all, such that parties do not use the latest Meter Technical Details."

Risk 012

Category: Metering

Sub-Category: MTD Quality

"The risk that SVA Metering System technical details are created incorrectly."

BSC Section L Metering

2.4 Meter Technical Details states;

2.4.1 The Registrant of each Metering System shall, in accordance with the relevant BSC Procedures:

(a) establish and maintain Meter Technical Details in respect of the Metering Equipment;

(b) ensure that such Meter Technical Details are true, complete and accurate;

(c) provide such Meter Technical Details to the CDCA or (as the case may be) to the relevant Data Collector

BSC Section S Party Agents and Qualification Under the Code

4.1 Appointment

4.1.2 The identity of each Party Agent for which a Party is responsible shall be determined by that Party save that:

(a) there must always be one and no more than one effective appointment of the relevant type of Party Agent (as applicable) at any time in relation to a particular Metering System in respect of any particular period;

BSCP514, SVA Meter Operations for Metering Systems Registered in SMRS

5.2.2 'New Connection – Installation'

5.3.4 'Reconfigure or Replace Metering System'

6.2.2 'New Connection'

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