

PUBLIC

Technical Assurance Audit Report

Late and Missing Smart MTDs

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LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

CONTENTS

Executive Summary 3

1. Background and Risk 4

2. Market Wide Performance 5

3. TAPAP Findings 6

4. ‘Off the Shelf’ Risk 8

5. Recommendations 9

Appendix A – Associated Settlement Risks and Balancing and Settlement Code (BSC) sections 10



LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

Executive Summary

ELEXON undertook an audit investigating late and missing Smart MTDs focusing on [BSCP514](#)¹:

- 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](#)'. Additional areas of non-compliance were identified (summarised below) along with the 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. Further detail around this risk is provided 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
Suppliers back dating appointments	Section J 4.1.2
Undertaking Meter exchanges without a valid appointment and not sending the relevant data flows.	BSCP514 (5.2.2 & 5.3.4) 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

LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

1. Background and Risk

The Interim Smart Risk Register (appended to the 2018/19 Risk Evaluation Register) denotes **SMSR0006** as the risk that Meter Technical Details are inaccurate or missing as a result of MOA processes resulting in estimated or erroneous data entering Settlement.

The performance of eight MOAs 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](#).

ELEXON notes that as the smart rollout continues to ramp up the impact of poor performance will become more significant. ELEXON proposes to conduct a TAPAP audit of the worst performing MOAs highlighted by this report with a view to:

- Validating the exceptions highlighted by the Smart MTDs report;
- Identifying the root causes for the validated non-compliances;
- Quantifying the material impact of late and missing MTDs; and
- Determining 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 DCs not holding valid MTDs required to process readings for Settlement or new MOAs not having 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) such instances can result in a materially significant impact. This misstatement can subsequently have a direct impact on Parties' abilities 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 impact.

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. This introduces 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.

2019/20 Risk Evaluation Register (RER):

Under ELEXON's 2019/20 RER, existing risks relating to the transfer and processing of MTDs will be superseded by risks SR006 and SR012 (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

LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

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.

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

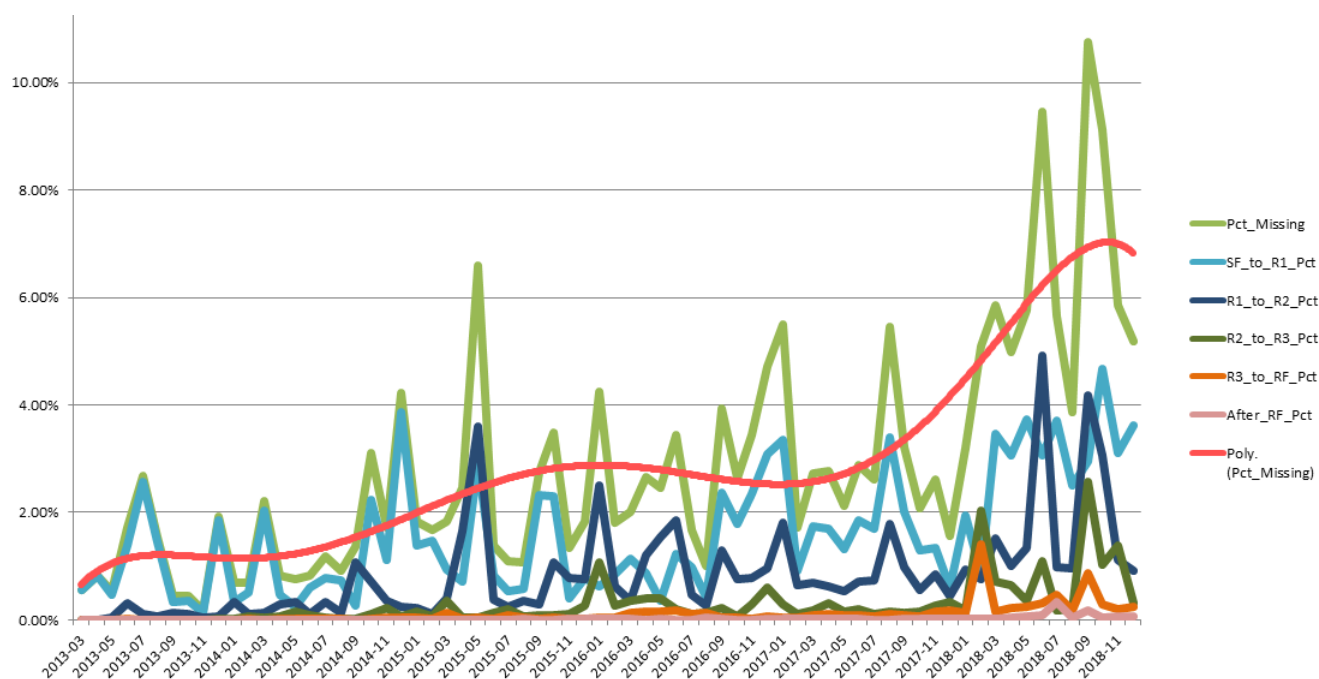
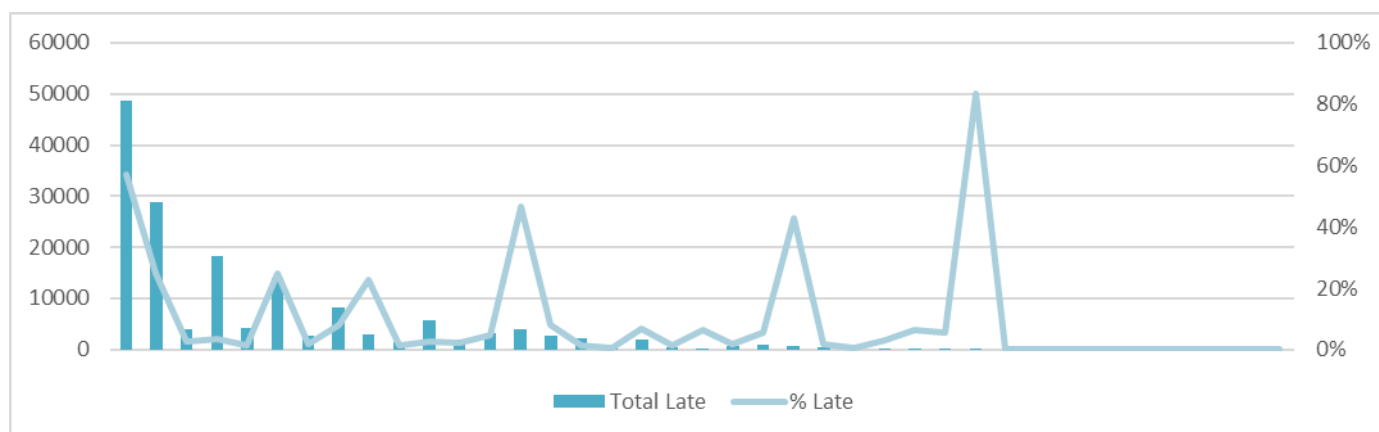


Figure 2: Aggregate Market Wide Performance by NHHMOA (MPIDs redacted) - 2018



LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

3. TAPAP Findings

- 3.1 ELEXON undertook the first round of the Technical Assurance of Technical Assurance Parties (TAPAP) site visits into 'Late and Missing Smart Meter Technical Details (MTDs)' between November 2018 and January 2019. The TAPAP checks targeted three Non Half Hourly (NHH) Meter Operating Agents (MOAs) and one managed service provider (selection criteria was provided for within the scope paper presented at the [August 2018 PAB meeting](#)).

Non-Compliance 1 – MTDs sent outside BSCP514² 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'; and
 - 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. This was exacerbated by a lack of focus on data quality and the impacts such errors have on Settlement Risk.

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

- 3.5 ELEXON notes that two audited MPIDs had observable instances of 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'

Non-compliance 3

- 3.7 Undertaking Meter exchanges without a valid appointment and not sending the relevant data flows.
- 3.8 This is non-compliant with:
- Section J 4.1.2 'Appointment and Replacement of Party Agents';
 - BSCP514 5.2.2 'New Connection – Installation'; and
 - BSCP514 5.3.4 'Reconfigure or Replace Metering System'.

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

LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

Observation 1

- 3.9 Two NHHMOAs were observed to have instances of mismatches between in-house appointment tracker and data extracted from the DTN. This further highlights concerns around MTD quality and the lack of robust quality assurance processes.
- 3.10 ELEXON recognises that the MSNs provided on the installation tracker may not always be representative of the Meter that was installed; subsequently, this has been reported as an observation rather than non-compliance.

Observation 2

- 3.11 ELEXON notes 624 instances of an audited NHHMOA reporting the final read for the removed Meter during a Meter exchange was "0". Subsequent spot checks have validated that these reads are incorrect. However, the issue has not become material as, in the observed instances, the DC had invalidated the read and submitted a more sensible one (presumably estimated). However, where the DC does not invalidate the read there is the potential for an erroneously high Annualised Advance (AA).

LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

4. 'Off the Shelf' Risk

- 4.1 While reducing the barrier to entry which is in principle a positive impact, the off the shelf business model allows new businesses the ability 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. Through our audits we noted that while the business maturity of the "off the shelf" NHHMOAs had progressed and improved during operation, the early stages of this resulted in significant material failures and associated impact.
- 4.3 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 these NHHMOAs and the entity, which took their MPIDs 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.

LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

5. Recommendations

PAP Level Recommendations:

- a) 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 appointment issues highlighted will be contacted in order 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 this risk (SR006) for any NHHMOA found to be in breach of a new 'policy' being designed by ELEXON to work alongside the new approved 2019/20 Risk Operating Plan. Updates on the development of these policies will be brought before the PAB by ELEXON's Risk Team. The findings from these TAPAP audits will be fed into the design of this policy and ELEXON will engage with the PAB to agree the performance levels which will be mandated under this policy.

LATE AND MISSING METER TECHNICAL DETAILS (MTDS)

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:

Settlement Risk SR006

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."

Settlement Risk SR012

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'