

Technical Assurance Agent (TAA) Annual Report – Elexon Response

Performance Assurance Board (PAB)

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Summary **Elexon’s response to the Technical Assurance Agent (TAA) annual report, outlining recommendations from the key audit findings.**

1. Introduction

- 1.1 At its March 2020 meeting, the Performance Assurance Board (PAB) suspended Technical Assurance of Metering (TAM) activities in light of the COVID-19 national lockdown. At its June 2020 meeting, the PAB agreed recommendations for TAM activities to commence on an optional basis for Desktop Audits and Central Volume Allocation (CVA) Inspection Visits. These activities continued on an optional basis throughout the remainder of the 2020/21 Performance Assurance Operating Period (PAOP).
- 1.2 As a result of audit optionality, the Performance Assurance Technique (PAT) was unable to provide full coverage of the market. Furthermore, the new Desktop Audit process, implemented in the 2020/21 PAOP, took on greater significance. This allowed assurance activities to continue remotely.
- 1.3 It is likely that the failure rates observed this PAOP are slightly inflated as a result of extreme external factors facing the industry, as well as reliance on a new process. Despite this, the audit results continue to identify areas of control failures and subsequent risk to the accuracy of data used for Settlement purposes.

2. Technical Assurance of Metering (TAM) Objectives

- 2.1 The correct installation and set-up of a physical Metering Systems underpins the accuracy of data used for Settlement purposes. The Technical Assurance Agent (TAA) checks are **the only assurance that Elexon provides on the physical Metering Systems.**
- 2.2 In order to ensure that physical Metering Systems are recording data accurately, controls and working practices are stipulated in the Codes of Practice (CoPs), BSC Code and BSC Procedures. The TAA checks Metering Systems against these standards, to determine whether industry are adhering to obligations and provides data to Elexon regard the result of these checks. Furthermore, the introduction of Desktop Audits has widened the TAA scope to provide assurance on Metering record quality and availability.
- 2.3 The primary objectives of Technical Assurance are outlined below:
 - **Section L Metering, section 7.1.1**
The role of the TAA is to monitor compliance by Parties with the requirements, in relation to Half Hourly Metering Systems, of this Section L, Codes of Practice and BSC Procedures, and identify cases where such requirements are not being complied with ("non-compliance"); and
 - **BSCP27 Technical Assurance of Half Hourly Metering Systems for Settlement Purposes, section 1.1**
The secondary aim of Technical Assurance is to assess the overall health of all the Half Hourly Metering System population. The TAA will provide an indication of the overall health of these Metering Systems in the TAA annual report.

- 2.4 As noted above, the objectives are concerned with monitoring compliance against obligations outlined in the BSC, CoPs and BSC Procedures. Furthermore, the secondary objective is assess the overall health of the Half Hourly Metering System population.
- 2.5 The objectives and outputs of the TAM included in the Performance Assurance Framework (PAF) review (PAB217/13A), with all recommendations approved by the PAB.

3. Materiality

- 3.1 Whilst TAA audit objectives are concerned with monitoring compliance and assessing overall health of the market, it is important to understand where control failures result in material Settlement Errors.

Supplier Volume Allocation (SVA) Desktop Audits

- 3.2 The Desktop Audit process provides assurance on the accuracy of data used for Settlement processes by investigating record quality and availability. This supplements the view provided through other assurance techniques, which focus on the sending of data items within prescribed timescales.
- 3.3 Whilst the TAA are able to indicate the likelihood of a material error being present on site through a Desktop Audit, an Inspection Visit is required in order to confirm the error. A total of 19 Measurement Class E¹ and 8 Measurement Class C² Desktop Audits have been recommended for an onsite Inspection Visits.
- 3.4 Unfortunately, the TAA has been unable to undertake SVA onsite Inspection Visits, due to COVID-19 restrictions. However, Desktop Audits recommended for onsite Inspection Visits will be undertaken as a priority, following the re-commencement of SVA Inspection Visits on 2 August 2021³. Elexon will gain a stronger indication of size and frequency of material non-compliances following the completion of recommended Inspection Visits.
- 3.5 Elexon will update the PAB following completion of these Inspection Visits.

Central Volume Allocation (CVA) Main Sample Inspection Visits

- 3.6 The CVA Main Sample did not cover the usual 5% of the CVA market, due to COVID-19 restrictions. However, the TAA identified one Category 1⁴ non-compliance, for an Aggregation Rule anomaly. Fortunately, the error related to a reserve supply, which had not been energised, as such the identification of the non-compliance prevented the error becoming material.
- 3.7 Aggregation Rule non-compliances typically result in a high impact to Settlement, with Trading Disputes typically being in excess of £1,000,000. Elexon will look to provide greater assurance on the quality of Aggregation Rules, through the application of CVA Desktop Audits. CVA Desktop Audits will increase the coverage of CVA sites that can be tested in a PAOP.

CVA Targeted Visits

- 3.8 In December 2020, the TAA undertook an Elexon requested Targeted Inspection Visit at Burwell Grid Supply Point (GSP). This was requested following concerns in the Annual Demand Ratio (ADR) value in GSP_A. The Targeted Visit identified a Category 1 non-compliance which was due to secondary wiring at circuit SGT2 not being connected to the Meter.
- 3.9 Further investigation by the TAA identified that maintenance work conducted on circuit SGT1 in May/June 2019 resulted in secondary wiring at SGT2 being severed. The secondary wiring was subsequently fixed, yet was not reconnected to the main and check Meter. As such, both Meters failed to record an energy flow from May/June 2019.
- 3.10 A Category 1 non-compliance identified at Burwell GSP_A resulted in a Trading Dispute (DA1110) of £12,000,000. Elexon continues its investigations into ADR anomalies, with the TAA supporting through Targeted Visits. Furthermore, Elexon has increased the number of available Targeted Visits to support these investigations throughout the 2020/2021 PAOP, as outlined in the TAM Audit Scope ([PAB241/05](#)).

4. Commissioning

¹ Half Hourly Metering Equipment at below 100kW Premises with current transformers

² Half Hourly Metering Equipment at above 100kW Premises

³ Indicative date based on the removal of national COVID-19 measures on the 21 June 2021 ([PAB244/07](#))

⁴ Category 1 non-compliance: A non-compliance has been identified from an Inspection Visit, which is deemed to be currently affecting the quality of data for Settlement purposes

- 4.1 Commissioning is the process which ensures the energy flow across the Defined Metering Point (DMP) is accurately recorded by the associated Metering Equipment. It is an essential control that confirms Metering Equipment is set up correctly, as well as affirming key standing data accuracy. Commissioning obligations are split between the Meter Operating Agent (MOA) and the measurement transformer equipment owner, typically the Licensed Distributor System Operator (LDSO).
- 4.2 As mentioned above, the unique external pressures faced by industry this PAOP and the reliance on a new process, has likely increased the failure rates. However, these factors are unlikely to have affected the Commissioning failure rates to an extent that would impact the observed trend.

SVA Commissioning

- 4.3 The TAA annual report identified a high failure rate across both the MOA and LDSO Commissioning processes, for Measurement Class C and Measurement Class E. Whilst a high failure rate was expected in Measurement Class E, it is concerning to observe similar rates in Measurement Class C (Figure 1).

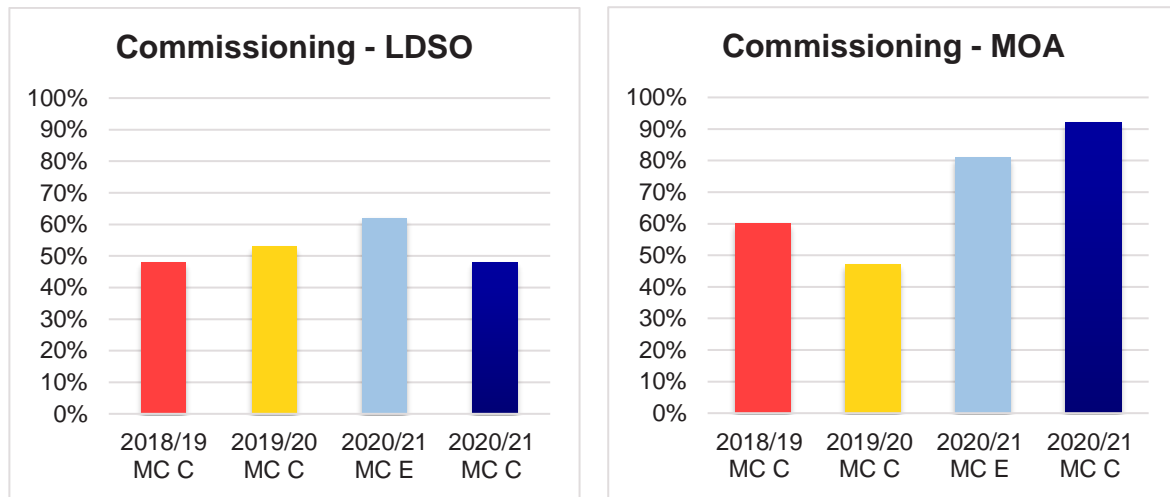


Figure 1: Commissioning Failure Rates for MOA and LDSOs

- 4.4 The observed failure rates are at odds with the results observed in the BSC Audit D0383⁵ work papers. This is of significant concern, as it may suggest that D0383 flows has been transferred for sites which do not have the appropriate Commissioning record to support the data. Furthermore, if D0383s exist without the appropriate Commissioning record, it is possible that the data items completed using data from the D0215⁶, a data flow with known data quality issues.

SVA Commissioning – Recommendations

- 4.5 The rectification of Category 1 non-compliance process indicates that Commissioning often fails due to environmental factors that the attending Party does not necessarily have control over. The primary root causes for Commissioning to fail are insufficient load to perform Commissioning, or failed site access.
- 4.6 In order to increase the likelihood of Meter Operating Agent (MOA) Commissioning being successful a multi role solution, dependant on improved communications is required. Role responsibilities outlined below:
- **Registrant:** Greater oversight of the process, ensuring customer contact to secure site access;
 - **MOA/LDSO:** Provide updates on Commissioning progress through BSCP514 processes, as well as actively engaging with other roles to ensure they are aware of progress and required actions; and
 - **Data Collector (DC):** Where Commissioning has failed due to insufficient load, monitor site and inform MOA when sufficient load to carry out Commissioning.
- 4.7 Elexon has observed improved success rates in the completion of Commissioning to close open Category 1 non-compliances, when encouraging engagement between Parties. In addition, remote load monitoring can reduce the number of repeated visits for field staff. This is particularly important in light of the increased fault rectification backlog that has resulted from the COVID-19 national lockdowns.
- 4.8 In order to facilitate communications between roles, Elexon proposes creating a new industry contact list, for the purpose of monitoring and arranging Commissioning appointments. Elexon will also produce guidance to supplement the contact list, which will outline operational best practices. This will work in conjunction with the

⁵ D0383: Notification of Commissioning Information

⁶ D0215: Provision of Site Technical Details

existing Commissioning back office contact list that was created following the P283⁷ [Process Implementation TAPAP checks](#) in 2015.

- 4.9 Furthermore, Elexon will raise DC load monitoring at the next CoP review workgroup, with a view to obtain feedback on whether it would be suitable to include it as a requirement in CoP4⁸.
- 4.10 In addition to the above, Elexon will look to utilise improved reporting functionalities on the Technical Assurance Agent Management Tool (TAAMT) to improve mid-year Commissioning performance monitoring. Results of monitoring can be made available to the PAB at its discretion.
- 4.11 Elexon recognise that BSCP514 will fall under Retail Energy Code (REC) governance on 1 September 2021. However, we believe that the above recommendations can still be progressed, in spite of the transition. This is because recommendations are concerned with improving Commissioning success rates, through promoting communication between roles, as opposed to changing the process.
- 4.12 In order to investigate the discrepancy between D0383 results from the BSC Audit, Elexon proposes the creation of a new BSC Audit paper. This paper will target Metering System Identifiers (MSIDs) for D0383 checks, that have been identified as having missing Commissioning records in the TAA audits.

CVA Commissioning Main Sample

- 4.13 The TAA completed a total of 21 CVA Main Sample Inspection Visits, comprising 61 circuits and identified a Commissioning failure rate of 57%. Whilst an improvement on previous PAOPs (see Figure 2), the figure still indicates a high rate of control failures across the CVA market.

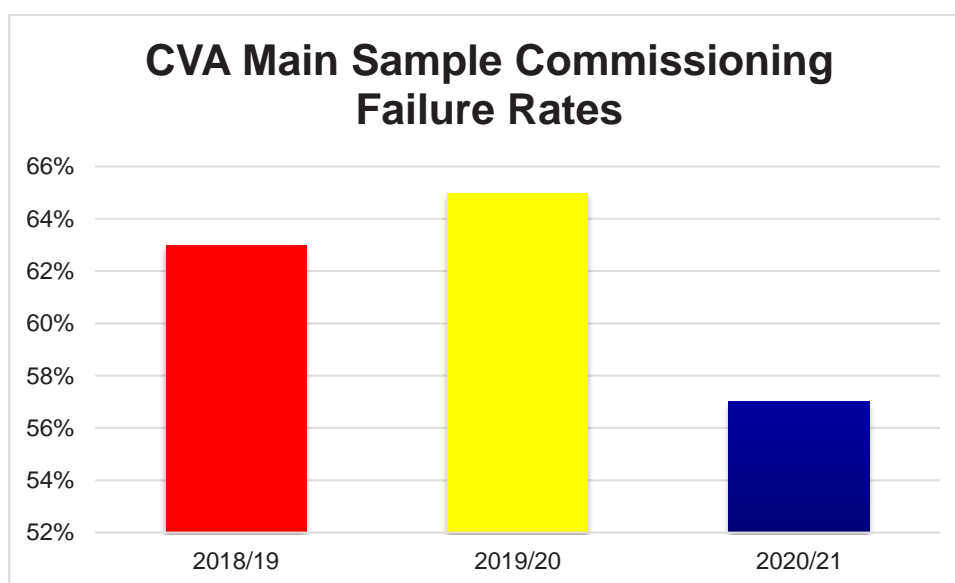


Figure 2 CVA Main Sample Commissioning Failure Rates

4.14 CVA Commissioning Main Sample – Recommendations

- 4.15 Elexon proposes supporting CVA Commissioning processes by promoting inter-role engagement. As with SVA Commissioning, Elexon will create a contact list for the purpose of facilitating Commissioning activities, supported by a guidance document noting best practice.
- 4.16 Furthermore, Elexon will increase the monitoring of CVA Commissioning rates, using the improved reporting functionalities in the TAAMT digital platform.

CVA Commissioning Targeted Visits

- 4.17 The TAA undertook 12 Target Visits at GSP sites, covering a total of 32 circuits. Targeted Visits were in response to potential errors being identified through ADR monitoring. The TAA identified a high failure rate for Commissioning at GSP sites, with only 19% of observed circuits deemed to be fully compliant.
- 4.18 Discussions held at the Technical Assurance of Metering Expert Group (TAMEG) and in Elexon's internal ADR workgroup indicate that the MOA is often unaware of work being carried out at GSP sites. As a result, the MOA

⁷ P283: Reinforcing the Commissioning of Metering Equipment Processes

⁸ Code of Practice 4: The Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlement Purposes

can miss the window of opportunity to undertake Commissioning activities during routine shut downs, which can be sporadic.

CVA Commissioning Targeted Visits – Recommendations

- 4.19 Elexon holds regular meetings with National Grid System Operator Company (NGESO) to discuss upcoming maintenance activities, outstanding faults and their rectification. It has previously been suggested that CVA MOAs could attend these meetings, to be made aware of upcoming works.
- 4.20 Following discussions with NGESO, it was deemed inappropriate for CVA MOAs to attend these meetings, due to non-disclose agreement concerns. However, Elexon is now exploring options to provide the appropriate CVA MOAs with a summary of upcoming activities at GSP sites, so that activities such as Commissioning have a higher likelihood of success. One option being explored is the creation of a shared spreadsheet, outlining upcoming site works at GSP sites.

5. Overall Accuracy

- 5.1 Overall Accuracy is the check whereby the MOA confirms that the Metering System is maintained within the acceptance limits defined in the CoPs. It is calculated using information typically contained in a Commissioning record, or Metering Equipment calibration certificates. Confirming Overall Accuracy is considered one of the most robust controls for ensuring Metering Systems correctly record data for Settlement purposes.
- 5.2 The TAA observed high volumes of Overall Accuracy non-compliances, 14% in Measurement Class E and 9% in Measurement Class C. Non-compliances were assigned for failure to complete the calculation, or provide calculation supporting evidence.
- 5.3 It is possible that these values may have been increased as a result of staff submitting evidence for the TAA audits while being unfamiliar with technical requirements. However, it is also possible that following the implementation of the Commissioning data flows ([CP1496](#)⁹), equipment owners were unaware there is still a requirement to transfer calibration certificates via email, despite Elexon communications outlining obligations.

Overall Accuracy Recommendations

- 5.4 Elexon recommends reminding Parties of their obligations to transfer Metering Equipment calibration certificates and the importance of doing so. In addition, Elexon will support this by updating and re-distributing the P283 contact list, to assist the transfer of certificates to the appropriate persons.

6. Incorrect Measurement Class Registration of Import/ Export Meters

- 6.1 The TAA identified a number of instances where import and export Meters had been incorrectly registered in separate Measurement Classes. This is contrary to obligations introduced as part of [P339](#)¹⁰.
- 6.2 This was mostly the case in the Measurement Class E Specific Sample, which observed incorrect registrations in 7% of Desktop Audits. These primarily occurred on sites registered against MPID, MPID and MPID Suppliers.

⁹ CP1496: Introduction of two data flows for the Commissioning process for Half Hourly (HH) Supplier Volume Allocation (SVA) Current Transformer (CT) operated Metering Systems

¹⁰ P339: Introduction of new Consumption Component Classes for Measurement Classes E-G

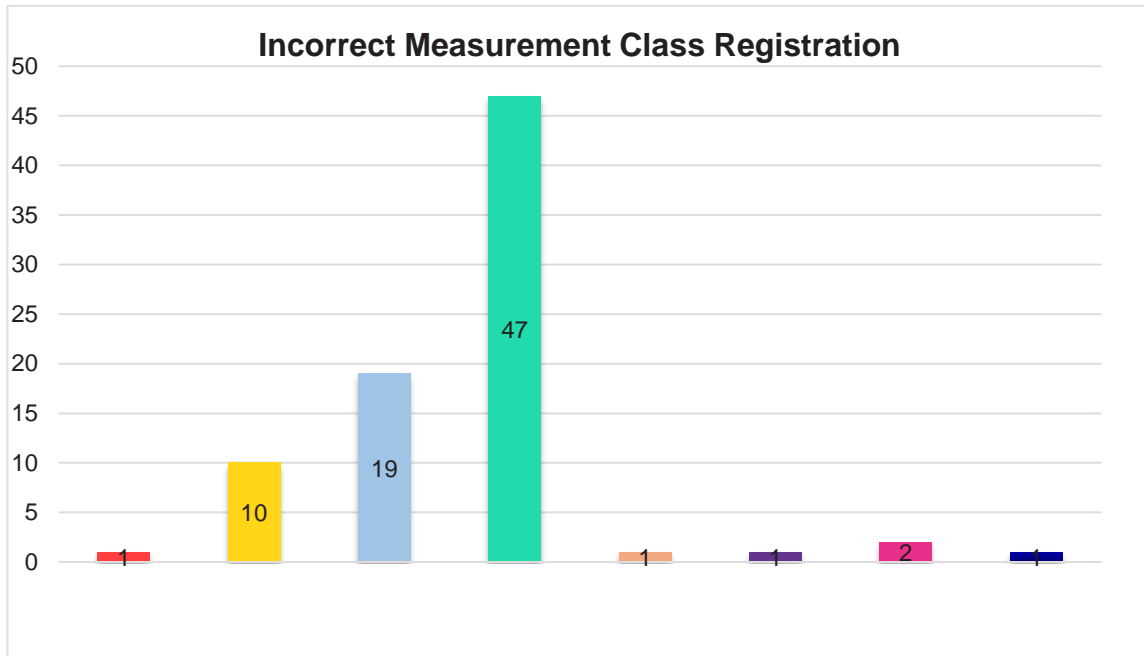


Figure 3 Incorrect Measurement Class Registration for Import/Export Meters, in Measurement Class E

6.3 Elxon proposes to contact Suppliers with the highest failure rates, reminding them of their obligations. Furthermore, Elxon will continue to monitor and report on incorrect Measurement Class Registrations through the TAA audits.

7. D0215 Provision of Site Technical Details

- 7.1 The Desktop Audit process requires LDSOs to submit the D0215 data flow, as part of the evidence request. The TAA observed high volumes of non-compliances associated with the D0215, with the Measurement Class E sample noting a failure rate of 86% and Measurement Class C a failure rate of 80%.
- 7.2 The quality of information in the D0215 and inefficiencies in the process has subsequently been raised at the TAMEG. Discussions have resulted in a TAMEG member agreeing to raise an Issue Group to further progress investigations into the D0215. Elxon proposes to continue to support the progression of the D0215 Issue Group and to update the PAB on its conclusions.

8. Measurement Class E – Specific Sample

- 8.1 The SVA Specific Sample for the 2020/21 PAOP investigated Measurement Class E Metering Systems, a market area that has not previously been covered through Technical Assurance audits. The SVA recommendations covered in this paper apply to both Measurement Class E and Measurement Class C.
- 8.2 However, Elxon will provide a bespoke findings paper to the PAB for the Measurement Class E Specific Sample, following the completion of the Desktop Audits recommended for a follow up Site Inspection. This will allow Elxon to comment on the volumes of non-compliance that resulted in material Trading Disputes.

9. Recommendations

9.1 The PAB:

- a) **NOTED** the response to the TAA 2020/21 annual report;
- b) **COMMENTED** on the SVA Commissioning Recommendations;
- c) **APPROVED** the amendment of a BSC Audit work paper to include a check of D0383 data flows with an existing TAA Commissioning non-compliance. Selection of D0383 data flows for the work paper would not be limited to MSIDs with outstanding TAA non-compliances;;
- d) **APPROVED** Elexon's creation of a summary paper of outcomes from Technical Assurance of Metering Expert Group (TAMEG) meetings for presentation to the PAB on a quarterly basis;
- e) **COMMENTED** on the CVA Commissioning Recommendations; and
- f) **COMMENTED** on the incorrect Measurement Class registration of Import/ Export Meters Recommendations.

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