

Technical Assurance of Metering (TAM) Audit Scope 2023/24

Performance Assurance Board

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Summary			
The Performance Assurance Board (PAB) is invited to approve the Technical Assurance of Metering (TAM) audit scope for Performance Assurance Operating Period (PAOP) 2023/2024.			

1. Background

- 1.1 The Technical Assurance of Metering (TAM) technique aims to ensure the accuracy of Half Hourly (HH) metered data through the use of onsite Inspection Visits and Desktop Audits carried out by the Technical Assurance Agent (TAA).
- 1.2 TAM requirements are outlined in [BSCP27 – Technical Assurance of Half Hourly Metering Systems for Settlement Purposes](#) and include the requirement to provide an indication of the overall health of the HH Metering System population.
- 1.3 TAM is a detective Performance Assurance Technique (PAT) within the Performance Assurance Framework (PAF) and is the only technique that audits physical Metering Systems. Non-compliances identified through the PAT provide information relating to the following Supplier Volume Allocation (SVA) and Central Volume Allocation (CVA) Settlement Risks:

Risk	Market	Title (the risk that...)
003	SVA	SVA Metering Equipment is installed, programmed or maintained incorrectly including where Commissioning is performed incorrectly or not at all
004	SVA	Changes to SVA Metering Equipment are not notified, such that all members of the Supplier Hub do not use the current Meter Technical Details
005	SVA	A fault with SVA Metering Equipment is not resolved, such that metered data is recorded incorrectly or cannot be retrieved
012	SVA	SVA Metering System technical details are created incorrectly
020	CVA	CVA Metering Equipment is installed, programmed or maintained incorrectly including where Commissioning is performed incorrectly or not at all
022	CVA	Changes to CVA Metering Equipment are not notified to CDCA
026	CVA	Aggregation Rules in CDCA are incorrect such that CVA Metered Data is not correctly aggregated and the energy volumes required for Settlement are incorrect or missing

SVA Main and Specific Samples

- 1.4 The SVA main sample is the main method by which TAM aims to provide an indication of the overall health of the HH Metering System population.
- 1.5 Until the 2020/21 audit year this was typically achieved by completing Inspection Visits for approximately 1% of the Measurement Class C Meter population. However, over the past two audit years the main sample has comprised both Inspection Visits and Desktop Audits.
- 1.6 Elexon proposes retaining this mix of Inspection Visits and Desktop Audits for the 2023/2024 audit year, maintaining the ratio of Inspection Visits to Desktop Audits at 2:1.
- 1.7 The greater emphasis on Inspection Visits is recommended due to ongoing issues with Desktop Audits in terms of participant engagement and difficulties differentiating between instances where:
 - the process has not been completed correctly (for example, where files have been uploaded in the wrong format) and
 - instances where there is a genuine failure and/or risk to Settlement (for example, where the file shows that a participants' system holds incorrect information).
- 1.8 Participants will be reminded of their responsibilities with regards to Desktop Audits, and those with persistent low levels of engagement or high levels of administrative error have been requested to attend the upcoming TAM Day on 4 April 2023 to re-familiarise themselves with the process. Elexon will supplement this with deployment of the Education technique where appropriate.
- 1.9 In addition, Elexon recommends that all sites that have been recommended for an Inspection Visit following a Desktop Audit are included in a specific sample. This will facilitate statistical comparisons between instances of non-compliance across both types of audit and help to establish the effectiveness of Desktop Audits in detecting material non-compliance.
- 1.10 The SVA Main Sample size has been calculated using the statistical sampling methodology recommended in the PAF review and first implemented in the TAM Audit Scope for 2020/2021 ([PAB228/07](#)) in line with the recommendations of the PAF review. However the confidence interval has been reduced to account for the reduction in certainty associated with Desktop Audits when compared to Inspection Visits.

SVA Main Sample	
Confidence Level	95%
Confidence Interval	0.7%
Population	174,169
Failure Rate	1%
Sample Size	771
Percentage of Population	0.44%

2. Central Volume Allocation (CVA) Specific Samples

- 2.1 A CVA Main Sample cannot be selected using the same statistical sampling methodology as for SVA, due to the smaller metering population (~1,000 Meter System Identifiers (MSIDs)).
- 2.2 In line with the findings of the TAM Annual Report for 2021/22, and following discussion of the Settlement impact of CVA metering errors at PAB255 in April 2022, the PAB agreed to amend the Audit Scope for 2022/23 to cover all Grid Supply Point (GSP) metering that had not been audited in one of the two previous Performance Assurance Operating Periods (PAOPs)
- 2.3 This approach prioritised detecting material error over building up statistical data on risk in the CVA market. Given the significant material impact of CVA metering error, even where it is corrected through Settlement runs prior to RF, Elexon have continued this approach for the 2023/24 audit year.
- 2.4 Accordingly, Elexon recommends CVA Inspection Visits are divided across three specific samples, as follows:

- At least 63 MSIDs where Metering Equipment has been installed or Commissioned during the 2022/23 Audit Year
- 7 MSIDs at Offshore Wind sites
- At least 42 MSIDs to complete work from previous audit years, comprising:
 - 7 GSPs that were not correctly identified for the 2022/23 specific sample
 - Any GSPs where an Inspection Visit scheduled for the remainder of the 2022/23 audit year is unable to go ahead
 - 35 non-GSP MSIDs for which scheduled audits could not be completed during the 2021/22 audit year due to resourcing constraints at the CVA MOA, nor in 2022/23 due to the shift to a GSP-only specific sample

- 2.5 The MSIDs at which equipment has been installed or commissioned have been selected as changes to Metering Equipment have historically carried a risk of introducing metering error. All material errors detected in the 2022/23 were caused by work on the Metering Equipment being completed incorrectly.
- 2.6 No Inspection Visits have been carried out at offshore wind sites since the 2019/20 audit year. As offshore wind is a significant portion of the CVA metering population, it is appropriate that these now resume. The MSIDs in the sample comprise ~30% of total metered volumes for offshore wind over 2021/22 and have been selected to provide the maximal possible coverage through the minimal number of inspections.
- 2.7 As in the 2022/2023 audit year, the specific sample will be supplemented by targeted Inspections of **any** CVA metering where either Elexon's data modelling or intelligence received from participants indicates an error may be present.

3. Central Volume Allocation (CVA) Desktop Audits

- 3.1 Elexon still intend to explore widening the use of Desktop Audits to include CVA sites. However, there is still significant work required to ensure that the process is fit for purpose for CVA.
- 3.2 The Measurement Class C SVA Desktop Audits will continue to provide an opportunity to assess some of the possible changes required to apply Desktop Audits to CVA sites. Elexon will continue to work alongside the Technical Assurance Metering Expert Group (TAMEG) to ensure maximum value from the Desktop Audit process.
- 3.3 Elexon have approximately 40 CVA Desktop Audits reserved to conduct a proof of concept sample. Please note, it is unlikely that the CVA Desktop Audit process will be ready until the second half of the audit year.

4. Recommendations

- 4.1 The PAB is invited to:
- a) **APPROVE** the SVA Main Sample;
 - b) **APPROVE** the SVA Specific Sample of all sites that have been recommended for an Inspection Visit following a Desktop Audi;
 - c) **APPROVE** the CVA Main Sample;
 - d) **APPROVE** the CVA Specific Samples
 - e) **APPROVE** the CVA Targeted Visits approach; and
 - f) **COMMENT** on CVA Desktop Audits.

For more information, please contact:

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