

'Introducing Desktop Audits'

This proposal seeks to expand the scope of the Technical Assurance of Metering (TAM) technique to include the use of Desktop Audits. The Performance Assurance Board, following a review of the Technical Assurance of Metering (TAM) technique, recommend this proposal be raised.



The Performance Assurance Board (PAB) recommend that the Panel raise this Modification in line with BSC Section F2.1.1(d)(vi)



ELEXON recommends that this Modification Proposal is progressed directly to the Report Phase with an initial recommendation to approve

This Modification is expected to impact:

- Metering System Registrants
- Meter Operator Agents
- Licensed Distribution System Operators
- Technical Assurance Agent
- Performance Assurance Board
- Half Hourly Data Collectors
- Central Data Collection Agents

ELEXON

Phase

Initial Written Assessment

Definition Procedure

Assessment Procedure

Report Phase

Implementation

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About This Document

This document is an Initial Written Assessment (IWA), which ELEXON will present to the Panel on 12 September 2019. The Panel will consider the recommendations and agree how to progress this Modification Proposal.

There are seven parts to this document:

- This is the main document. It provides details of the Modification Proposal, an assessment of the potential impacts and a recommendation of how the Modification should progress.
- Attachment A contains the Modification Proposal Form.
- Attachment B contains the draft redlined changes to the BSC for this Modification.
- Attachment C - E contains the draft redlined changes to the CSDs for this Modification.
- Attachment F contains the Business Requirements for this Modification.



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1 Why Change?

Background

The auditing of Metering Systems is a vital element of managing risk to Settlement. It provides assurance that calculations and allocations are in accordance with the BSC and its Subsidiary Documents

The Technical Assurance of Metering (TAM) technique is a Performance Assurance Technique (PAT) that monitors the compliance of Metering Systems with metering requirements. The TAM technique forms part of the Performance Assurance Framework (PAF).

Technical Assurance of Metering

TAM remains an important technique to monitor the quality of Half Hourly (HH) physical Metering System installations and associated standing data.

The primary objective of TAM is to monitor compliance with BSC obligations to ensure Half Hourly metered data is complete and accurate. The secondary objective of TAM is to assess the overall health of all the HH Metering System population. The technique is delivered through onsite inspections of a sample of HH Metering Systems where the installation of the Metering Equipment and associated standing data are assessed against BSC requirements.

In accordance with strategy and risk appetite of the Performance Assurance Board (PAB), the scope and approach for each TAM audit is determined in the Risk Operating Plan (ROP), which outlines out how techniques will be deployed to mitigate Settlement Risks.

Role of the Technical Assurance Agent

The role of the Technical Assurance Agent (TAA) is to monitor compliance by Parties with the requirements of the BSC, Codes of Practice (CoPs) and Balancing and Settlement Code Procedures (BSCPs).

The TAA is appointed by the BSCCo (ELEXON) as a BSC Agent to deliver Half Hourly (HH) Metering Systems audits on a representative sample of the market place (by Grid Supply Point (GSP) Group, Meter Operator Agent (MOA) and Metering System type).

The TAA will inspect Metering Systems and identify cases where requirements are not being complied with. The TAA will ensure that the required actions are taken to rectify and clear any non-compliances identified following an Inspection Visit.

The TAA presents its audit findings to the PAB annually for its endorsement and to the BSC Panel, to provide an expert opinion on the health of the HH Metering market. The TAA will deliver expert advice and opinion, highlighting trends and issues, and provide recommendations to a non-technical audience and industry decision makers.

TAAMT

ELEXON has developed an online support tool to help organise site visits and share information with the TAA. The Technical Assurance Agent Management Tool (TAAMT) is a



What is a Metering System?

A Metering System is made up of items of Metering Equipment; voltage transformers, current transformers, Meters and Outstations, the wires and connections between each item and connections required to transfer metered data to the outside world (e.g. modems and communication lines). There are two types of Metering System; those which measure and record electrical energy flow for each half hour for Settlement (Half Hourly Metering Systems) and those which measure and record over longer periods of time, from which energy flows in each half hour can be estimated (Non Half Hourly Metering Systems).



What is the Performance Assurance Framework?

Part of ELEXON's role as administrator of the BSC is to monitor the compliance of all BSC Parties with the provisions of the BSC, and to run Performance Assurance activities. This is done through the Performance Assurance Framework and overseen by the Performance Assurance Board

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central database that contains all historical data and information for Metering System Inspection Visits performed by TAA Auditors.

Its role is to provide ELEXON with compliance information, as well as support the TAA and industry participants in scheduling Inspection Visits, recording results, raising non-compliances, Queries and Appeals. The TAAMT is also used to report on the status of these activities and the health of the market.

Inspection Visits

When a Metering System is selected for audit, the TAA notifies the relevant Parties/Party Agents prior to the date of the intended Inspection Visit and obtains confirmation of the Inspection Visit. The Parties involved are:

- Registrant;
- Meter Operator Agent (MOA);
- Licenced Distribution System Operator (LDSO) (or National Electricity Transmission System Operator (NETSO)); and
- Half Hourly Data Collector (HHDC) or Central Data Collection Agent (CDCA).

Prior to the Inspection Visit, the relevant Parties are required to provide relevant information (via TAAMT), such as Meter Technical Details (MTDs). Following the Inspection Visit, the TAA Auditor records its findings for the Inspection Visit on the TAMMT.

Review of the TAM technique

The PAF Review reviewed the TAM technique from November 2018 to February 2019. The findings of the review were presented to the PAB on 28 February 2019. The PAB approved the review's recommendations ([TAM Recommendations Report \(217/13\)](#)). One of the recommendations was to introduce Desktop Audits, as a lower intensity audit check. These would supplement onsite Inspection Visits as directed within the annual audit scope.

PAF Review Findings

The stakeholder engagement exercise undertaken prior to commencing the PAF Review did not highlight any fundamental issues with the TAM technique, and review activities largely confirmed the initial view from stakeholders that the TAM technique is effective at providing assurance and that it remains a required element within the assurance framework.

However, it identified a number of opportunities for improvement related to the scoping, deployment and delivery of the technique, including lower intensity desktop audits.

Recommendation to introduce Desktop Audits

One of the key recommendations was to introduce lower intensity desktop audits to supplement or replace onsite inspections as directed within the annual scope.

It was noted that a number of desktop-based activities (such as Meter Technical Detail alignment) are already undertaken as part of a TAM Inspection Visit. However, the PAB felt that a clearly defined, structured Desktop Audit process could supplement on-site

Inspection Visits, on the understanding that such an activity would not provide the same level of assurance as an on-site Inspection Visit.

- The PAF Review envisaged a number of potential uses for Desktop Audits. The first being if the main sample was directed towards a particular market segment then Desktop Audits could be undertaken to provide limited assurance over the remaining HH market.
- Another area could be to determine whether an onsite Inspection Visit is warranted. For example, an onsite inspection could be triggered if a Metering System fails the desktop audit and is deemed a risk. Under such a use, members acknowledged that a Metering System may pass a Desktop Audit, but still have a non-compliance that is impacting Settlement.
- Finally, Desktop Audits could be used on a more exploratory basis where the risk is deemed low enough not to warrant onsite inspections at that time. For example, Measurement Classes E, F and G currently account for a low proportion of HH metered consumption (roughly 7%).
- ELEXON have not historically undertaken onsite inspections on these Measurement Classes due to the lower energy volumes involved. However, a desktop audit of these Metering Systems could be undertaken to provide initial insights into the health of the market segment.

At its meeting on [28 February 2019](#), PAB Members approved the recommendation to propose to the Panel that a BSC Modification is raised to include Desktop Audits in the scope of TAM.

What is the issue?

The requirement for Inspection Visits to be carried out on-site (and for the Registrant and the MOA (or a nominated representative) to attend the Inspection Visit), is resource intensive for both the TAA to undertake and audited Parties to support. There is not an audit check that is proportionate to HH sites with a lower energy consumption, such as those in Measurement Classes E, F and G.

Metering system audits currently can only be audited by an onsite inspection; in some paragraphs of Balancing and Settlement Code (BSC) Section L 'Metering' Clause 7 Technical Assurance of Metering Systems the requirement is explicit, and it is implicit throughout the section.

The introduction of Desktop Audits would have the benefit of reducing levels of no access visits and increasing confidence in the accuracy of Settlement due to an increased number of annual audits being performed.

By amending BSC Section L, BSCP27 and BSC Systems (namely the TAAMT) to facilitate Desktop Audits, BSCCo (via the TAA) can provide a flexible, pragmatic and cost-effective addition to onsite Inspection Visits.

The PAB has recommended that this proposal is raised to take forward these changes.

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Benefits of lower-intensity Desktop Audits

The introduction of Desktop Audits as a pragmatic and cost effective alternative to onsite inspections has the benefit of reducing costs for certain audited Parties, as onsite inspections are resource intensive to centrally deliver and for participants to support.

The impacts on Parties of supporting onsite inspections involve supporting travel costs, inspection duration and the on-demand availability of a MOA, and LDSO if required.

There can be an additional impact if the TAAs have been unable to access the required Metering System sites, resulting in increased costs which the Metering Registrants are obligated to absorb.

It should be noted that the objective of the paper approved by PAB is to improve the quality of settlement by expanding the scope of the audit, allowing more systems to be assessed via a desktop audit, and is not to reduce cost by avoiding the need for onsite inspections.

The introduction of a less resource-intensive alternative to onsite inspections would allow the PAB to extend the scope of metering Audits to sites with lower energy consumption, where the cost of an onsite visit is disproportionate to the total cost of the energy measured by the system. This has the potential to significantly improve the assurance of metering systems on such sites.

Proposed solution

This Modification proposes to amend the BSC to expand the scope of the TAM technique to allow for Desktop Audits to act as a supplement to existing on-site Inspection Visits.

To facilitate the solution, Section L and BSCP27 will be amended to describe the high-level obligations and process detail for the undertaking of Desktop Audits respectively, while definitions of a Desktop Audit and On-Site Inspection will be introduced to Annex X-1.

This follows the PAF review that recommended that the scope of TAM be extended to include lower intensity Desktop Audits via a Modification to the BSC.

Corresponding Legal Text and redlined changes to CSDs are included in this paper as Attachments B and C-E, respectively. Attachment F details the business requirements for this solution.

Introducing Desktop Audits in Section L 'Metering'

In order to enable the TAA to conduct Desktop Audits as part of the TAM technique, BSC Section L 'Metering' must be modified to reference Desktop Audits when describing the activities of the TAA in relation to:

- Basic requirements for Metering Equipment;
- Access to property;
- Technical Assurance of Metering Systems, including the provision of information, site selection;
- Non-compliance; and
- Reporting.

To make the obligations and requirements for the two different types of audit (on-site and desktop) more transparent and accessible to Parties, Annex X-1 'General Glossary' will be altered to introduce definitions of Desktop Audit and On-Site Inspection.

BSCP27 'Technical Assurance of Half Hourly Metering Systems for Settlement Purposes'

While the BSC will be modified to outline the high level obligations resulting from Desktop Audits, BSCP27 'Technical Assurance of Half Hourly Metering Systems for Settlement Purposes' will be amended to describe the Desktop Audit process in detail.

Proposed Desktop Audit process

On an annual basis, the PAB will determine the size and scope of a Desktop Audit sample to be run in addition to onsite Inspection Visits.

Based on the audit scope provided by the PAB, the TAA will be required to randomly select the agreed number of each type of Metering System that comprises the agreed Desktop Audit Sample.

At least 10 Working Days (WD) prior to a Desktop Audit, the TAA will be required to notify and provide an Evidence Request to the Registrant, LDSO (or Transmission Co), MOA and

HHDC/CDCA (as appropriate) of HH Metering System identified for Desktop Audit and confirm the date that the Desktop Audit will be completed.

At least 5 WD prior to the date of the Desktop Audit, the appropriate party will be required to provide the following evidence to the TAA, as a minimum:

- Meter Technical Details (D0268 dataflow)
- Meter Test Certificates for all listed MSIDs
- Test Certificates for all Measurement Transformers for all listed MSIDs
- Commissioning documentation
- This list is not exhaustive and any relevant information that may help the TAA to complete the Desktop Audit should be made available to the TAA.

Following the Desktop Audit, the TAA will be required to record its findings and notify the relevant parties.

Where the TAA has been unable to complete a Desktop Audit, the reason for the failed audit will be recorded and these instances will be reported to PAB at the discretion of BSCCo.

The findings of a Desktop Audit will be recorded on a Desktop Audit Schedule and communicated to Registrants and relevant agents via the software system (TAAMT) used by the TAA.

BSCP27/06 'Desktop Audit Evidence Request'

A new form, BSCP27/06 'Desktop Audit Evidence Request', will be created and will be used by the TAA to inform the Registrant and relevant parties of impending Desktop Audits.

This form will capture the date, time, Metering System Identifier (MSID) and name of the site to be audited via desktop, as well as prompting the Registrant for details and documentation that the Registrant must send or facilitate sending prior to the Desktop Audit. The Registrant will be required to respond (by acknowledgement) to this request within 2 Working Days and failure to do so may result in the matter being escalated to the PAB.

Applicable BSC Objectives

Implementation of this Modification Proposal would positively impact Applicable BSC Objective (d) as the TAM audit process would be made more efficient and streamlined. It would allow Metering Registrants and LDSOs/MOAs to rectify issues of non-compliance at a faster rate.

The introduction of Desktop Audits would have the benefit of reducing levels of no access visits and increasing confidence in the accuracy of Settlement due to an increased number of annual audits being performed.

Implementation approach

It is recommended that this proposed Modification is implemented on **27 February 2020** as part of the scheduled February 2020 BSC Release.



What are the Applicable BSC Objectives?

(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence

(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System

(c) Promoting effective competition in the generation and supply of electricity and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity

(d) Promoting efficiency in the implementation of the balancing and settlement arrangements

(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency [for the Co-operation of Energy Regulators]

(f) Implementing and administering the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation

(g) Compliance with the Transmission Losses Principle

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This ensures that this Modification is implemented in good time before the results of the 2019/20 TAA Audit are presented to the BSC Panel in June 2020 and to allow the new process to start being used in the 20/21 audit year.

While the changes to BSC documents will be implemented in the February release, the system changes to TAAMT will be completed prior to the start of the new audit year on 1 April 2020.

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What are the Self-Governance Criteria?

A Modification that, if implemented:

(a) is unlikely to have a material effect on:

- (i) existing or future electricity consumers; and
- (ii) competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution, or supply of electricity; and
- (iii) the operation of the national electricity transmission system; and
- (iv) matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies; and
- (v) the Code's governance procedures or modification procedures; and

(b) is unlikely to discriminate between different classes of Parties.

3 Proposed Progression

Next steps

We propose that this Modification is sent directly to the Report Phase and hence be subject to the Report Phase Consultation, as the solution of this Modification is clear and self-evident in its fulfilment of the PAF Review objectives.

The PAB has endorsed the proposal that a Modification is raised by the BSC Panel on its behalf in accordance with Section Z 8.2

Self-Governance

We request that this Modification be progressed as a Self-Governance Modification (no Ofgem approval sought) as it is not likely to have a material effect on the Self-Governance criteria.

This Modification aims to increase confidence in Settlement, while placing a very small additional burden on any Party. As such it is unlikely to have a material effect on consumers, competition, system operation, sustainability, safety, security, management of emergencies or code governance; nor will it discriminate between different classes of party. Consequently we believe that this proposal does not impact on the Self Governance Criteria.

At this time we do not believe this proposal, if sent directly to the Report Phase, should be treated as Urgent.

PAB's initial views and recommendation

The recommendation to raise this Modification was presented to the PAB at its meeting on 28 February 2019 as a recommendation paper. The PAB agreed with the proposed Modification and made a recommendation to the Panel to modify the existing TAM Performance Assurance Technique to raise a Modification Proposal in accordance with BSC Section Z8.2.

Proposed Progression Timetable	
Event	Date
Present Initial Written Assessment to Panel	12 September 2019
Report Phase Consultation (10WDs)	16 September – 27 September 2019
Present Draft Modification Report to Panel	10 October 2019
Final modification Report published	14 October 2019
Self- Governance Appeal Window (15 Working Days)	10 October – 30 October 2019

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4 Impacts and Costs

The introduction of Desktop Audits will require an enhancement of ELEXON's existing capability for delivering Technical Assurance of Metering.

This Modification Proposal aims to enable optional and supplemental Desktop Audits that will impact PAB, ELEXON and the TAA, as well as Metering System Registrants, Meter Operator Agents, Licensed Distribution System Operators, Half Hourly Data Collectors and Central Data Collection Agents.

Anticipated Industry Costs

We do not anticipate there to be any significant market participant impact or costs arising from the implementation of this solution as the changes impact the BSC TAAMT system and associated processes and not Party obligations. We seek clarification of this via the Report Phase Consultation. There are also potential operational cost savings to Parties that have a desktop audit in place of an onsite visit.

BSC / ELEXON Impacts and Costs

System changes will need to be made to the TAAMT to accommodate Desktop Audits and a new or amended Local Working Instruction (LWI) document must be created.

ELEXON's costs to implement this proposal are approximately £80,000. These costs are driven by the TAAMT development costs, along with minor costs to amend internal processes and documents:

- TAAMT development and implementation costs;
- 12 Working Day's effort to implement new internal processes, documents and training; and
- 3 Working Day's effort to implement document changes to the BSC and CSDs.

Impact on BSC Parties and Party Agents	
Party/Party Agent	Potential Impact
Metering System Registrants	Will be required to follow the process for Desktop Audits requirements following the this Modification Proposal's solution
Meter Operator Agents	
Licensed Distribution System Operators	
Half Hourly Data Collectors	
Central Data Collection Agents	

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Impact on Transmission Company

None anticipated

Impact on BSCCo

Area of ELEXON	Potential Impact
Performance Assurance Board	The PAB will determine the size and scope of a Desktop Audit sample to be run in addition to onsite Inspection Visits on an Annual basis.
Metering and Disputes	Will need to provide training and support on the new process to BSC Parties and Agents. Metering Registrants will need to be made aware of the additional audit method, and how it will be progressed in combination with the standard on-site Inspection Visits. They will need to know what information is required to complete a Desktop Audit and how it compares to an on-site Inspection Visit

Impact on BSC Settlement Risks

This proposal may impact Risk 003 - Metering Installation and Commissioning. Noted controls for Risk 003 are fault reporting processes, HHDC validation, Meter Sealing, CoP Compliance and Protocol Approval. This proposal may decrease this risk as it provides a view of physical Metering Systems quality and its adherence to the code and subsidiary documents.

Impact on BSC Systems and processes

BSC System/Process	Potential Impact
TAAMT	Will need to be amended to support this Modification Proposal's solution

Impact on BSC Agent/service provider contractual arrangements

BSC Agent/service provider contract	Potential Impact
TAA	Will be required to amend TAAMT to support this Modification Proposal's solution

Impact on Code

Code Section	Potential Impact
Section L – Metering	Will need to be amended to allow Desktop Audits to function
Section X, Annex X-1 – General Glossary	

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Impact on Code Subsidiary Documents	
CSD	Potential Impact
BSCP 27 - Technical Assurance of Half Hourly Metering Systems for Settlement Purposes	Will need to be amended to allow for Desktop Audits to function and to describe the Desktop Audit process.

Impact on other Configurable Items	
Configurable Item	Potential Impact
CVA TAA Service Description for CVA Technical Assurance	Will need to be amended to support this Modification Proposal's solution.
SVA TAA Technical Assurance Service Description	Will need to be amended to support this Modification Proposal's solution.

Impact on Core Industry Documents and other documents	
Document	Potential Impact
None identified	

Impact on a Significant Code Review (SCR) or other significant industry change projects
We do not believe this proposal impacts any current open SCRs. We requested Ofgem treat this proposal as an SCR Exempt Modification, subject to the Panel raising the proposal.

Impact on Consumers
None identified

Impact on the Environment
None identified

5 Recommendations

We invite the Panel to:

- **RAISE** this Modification Proposal in accordance with Section F2.1.1(d)(vi);
- **AGREE** that this Modification Proposal progresses directly to the Report Phase;
- **AGREE** that this Modification Proposal **DOES** better facilitate Applicable BSC Objective (d);
- **AGREE** an initial recommendation that this Modification Proposal should be **approved**;
- **AGREE** an initial Implementation Date of 27 February 2020 (February 2020 BSC Release);
- **AGREE** the draft legal text;
- **AGREE** the draft redlined changes to Code Subsidiary Documents;
- **AGREE** an initial view that this Modification Proposal should be treated as a Self-Governance Modification; and
- **NOTE** that ELEXON will, subject to Panel agreement, issue the Report Phase Consultation, including the draft BSC legal text, for a 10 Working Day Report Phase Consultation and will present the results to the Panel at its meeting on 10 October 2019.

Appendix 1: Glossary & References

Acronyms

Acronyms used in this document are listed in the table below.

Acronym	
Acronym	Definition
BSC	Balancing and Settlement Code
BSCCo	Balancing and Settlement Code Company
BSCP	Balancing and Settlement Code Procedure
CDCA	Central Data Collection Agents
CoP	Code of Practice
CSD	Code Subsidiary Document
HH	Half Hourly
HHDC	Half Hourly Data Collectors
LDSO	Licensed Distribution System Operators
LWI	Local Working Instruction
MRS	Metering System Registrants
MOA	Meter Operator Agents
MTD	Meter Technical Details
MSID	Metering System Identifier
NETSO	National Electricity Transmission System Operator
PAB	Performance Assurance Board
PAF	Performance Assurance Framework
PAT	Performance Assurance Technique
ROP	Risk Operating Plan
TAA	Technical Assurance Agent
TAM	Technical Assurance of Metering
TAAMT	Technical Assurance Agent Management Tool
WD	Working Day

External links

A summary of all hyperlinks used in this document are listed in the table below. All external documents and URL links listed are correct as of the date of this document.

External Links		
Page(s)	Description	URL
5	Review of the Performance Assurance Framework	https://www.elexon.co.uk/reference/performance-assurance/performance-assurance-framework-review/

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External Links		
Page(s)	Description	URL
5	PAB 217	https://www.elexon.co.uk/meeting/pab217/

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