



cutting through complexity

ELEXON

**U - BSC Audit Approach
Document (Non-
Confidential)**

Year ending 31 March 2014



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Scope of the BSC Audit

Key areas within the scope of the 'BSC Audit':

- **Testing compliance with the Balancing and Settlement Code within the market**
- **Assessing the effectiveness of controls employed by Parties and Party Agents to manage and/or mitigate two key Settlement Risks**

The detailed BSC requirements for the BSC Audit are provided in Appendix A.

Background and BSC requirements

Per Section H, paragraph 5 of the Balancing and Settlement Code ('the Code') the objective of the BSC Audit is to 'provide assurance (to such level as the Panel considers appropriate) that the provisions of the Code and Code Subsidiary Documents in relation to Settlement have been complied with in the Audit Year'. The detailed BSC requirements for the BSC Audit are provided in Appendix A of this document. For the year ending 31 March 2014 the BSC Audit Scope set by the Panel requires the BSC Auditor to assess the effectiveness of controls employed by Parties and Party Agents to manage and/or mitigate the following two key Settlement Risks:

Risk I/D	Risk Narrative
SR0022	The risk that HHMOAs do not provide correct Meter Technical Details to the HHDCs resulting in Meter readings being misinterpreted or not collected.
SR0072	The risk that NHHDCs process incorrect Meter readings, resulting in erroneous data being entered into Settlement.

The provisions of the Code and Code Subsidiary Documents in relation to Settlement over which the Panel requires assurance are agreed annually and recorded in the 'BSC Audit Scope'. The latest BSC Audit Scope for the BSC Year '1 April 2013 to 31 March 2014' is published on ELEXON's website. Compliance will be assessed to the extent that requirements as documented in the Code and Code Subsidiary Documents (BSCPs, COPs or PSLs) relate to the scope as defined by the Panel.

The extent to which Parties, who have signed up to the Code and appointed Party Agents, are subject to assurance procedures is determined by the risk to the completeness, validity and accuracy of Settlement associated with a given party. A number of factors are considered including, but not limited to, the role of the party, the number of MPANs managed by that party, experience of the party in participating in the Code, outstanding Issues Documents and changes in people, process and technology.

Section H of the BSC also requires that assurance is provided annually by the BSC Auditor that the provisions of the Code and Code Subsidiary Documents in relation to Funding Shares have been complied with in the Audit Year. Funding Shares is subject to alternative procedures and, as such, a separate Funding Shares Approach document will be produced.

Assurance Opinion

KPMG LLP has been appointed by the Panel as the BSC Auditor for the year ending 31 March 2014 and will provide the BSC Audit Report which contains an assurance based opinion based on Settlement calculations and allocations with respect to the Balancing and Settlement Code and Code Subsidiary Documents. References to the BSC Assurance Opinion in this 'BSC Audit Approach Document' relate to the KPMG Assurance Opinion which forms part of the 'BSC Audit Report' and references to the 'BSC Audit Engagement' are to the Assurance work we are performing.

The reasonable Assurance Opinion for the year ending 31 March 2014 will be in respect of all Reconciliation Runs processed in that year regardless of the audit period in which the relevant Settlement Day sits.

The BSC Auditor undertakes its procedures in accordance with International Standard on Assurance Engagements 3000 (Revised) – 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' ('ISAE 3000') issued by the International Auditing and Assurance Standards Board. The expression 'audit' used in connection with this engagement is determined to mean a reasonable assurance engagement performed in accordance with ISAE 3000.

Scope of the BSC Audit (continued)

Key areas within the scope of the 'BSC Audit':

- Testing compliance with the Balancing and Settlement Code within the market
- Assessing the effectiveness of controls employed by Parties and Party Agents to manage and/or mitigate two key Settlement Risks

The detailed BSC requirements for the BSC Audit are provided in Appendix A.

Assurance Opinion (continued)

In forming its opinion the BSC Auditor will take into account a number of factors including:

- Whether instances of non-compliance have resulted in a material error (in isolation or in aggregate (of both individual and extrapolated errors)); and
- Whether the issue has been, or will be corrected by the normal course of operation of Settlement, including the BSC Trading Disputes process.

Materiality for the BSC Audit year ending 31 March 2014 was agreed by the Panel at 1.5TWh as set out in the BSC Audit Scope 2013/14 document published in March 2013.

The assessment of what is material is a matter of professional judgement and will be agreed between the BSC Auditor and ELEXON prior to publication of the BSC Audit Report.

Consideration of the work of others

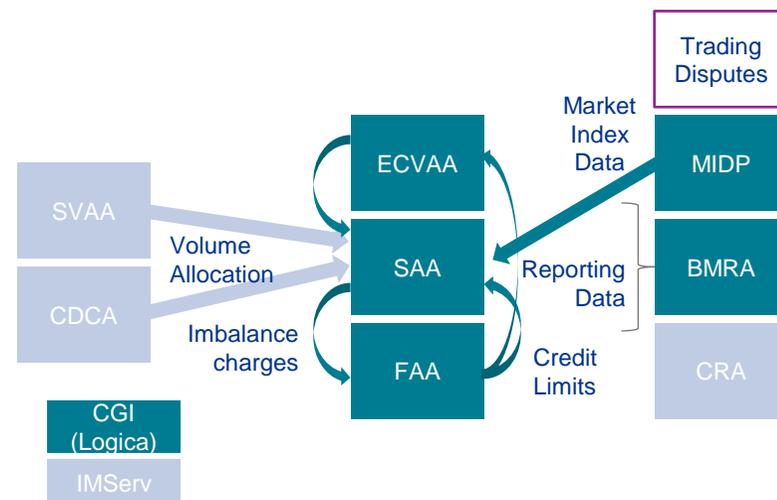
The Balancing Mechanism ('BM') Audit is conducted by the BM Auditor who is appointed by the Transmission Company pursuant to Section H paragraph 5.1.6 of the BSC.

Section L of the Code requires that the Technical Assurance Agent ('TAA') monitors compliance by Parties in relation to Half Hourly Metering System through spot visits at a representative selection of sites where Metering Equipment is installed. Monthly reports detailing instances of non-compliances should be provided to the Panel, the Performance Assurance Board and the BSC Auditor.

The BSC Audit Report considers the work of the TAA and BM Auditor and will take into account issues which, in the opinion of the BSC Auditor, may have a material impact on the conclusion of the assurance work performed under the BSC Audit engagement.

Central Settlements Systems

The testing performed by the BSC Auditor at audited entities will be supported and focused by the use of models and re-performance of calculations using data from a number of parties within the industry. The BSC Auditor utilises this data and models as part of the suite of tests it performs to provide assurance over the operation of the Central Settlements Systems. The scope of the audit of the Central Settlements Systems is shown below.



We will utilise various techniques to deliver a robust Assurance Opinion within the BSC Audit Report, including consideration of outputs from the wider Performance Assurance Framework.

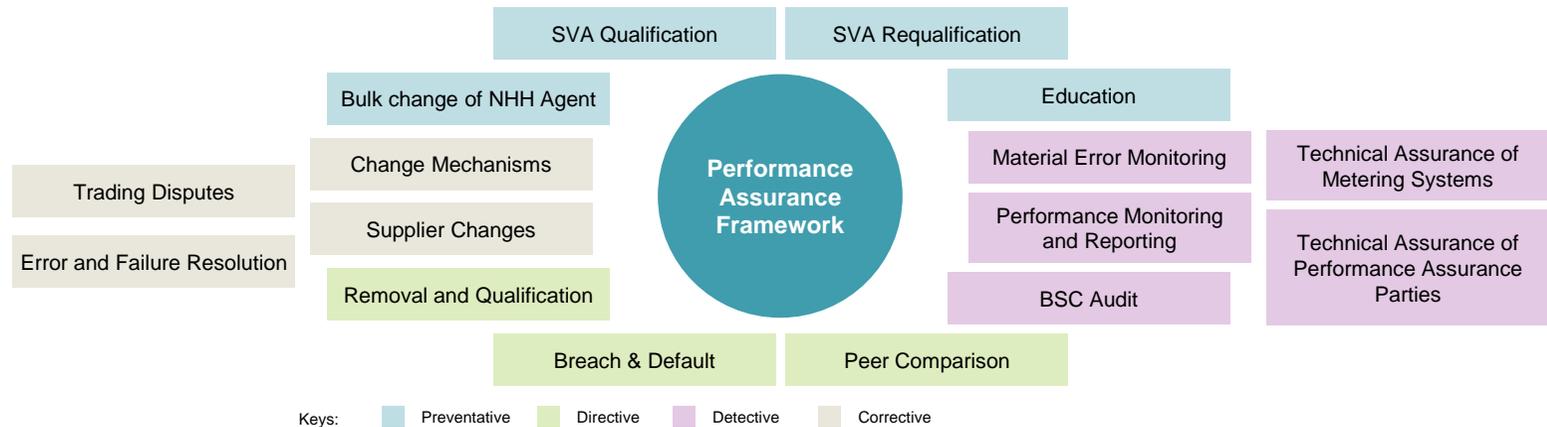
BSC Assurance techniques

In order to form its Assurance Opinion the BSC Auditor employs a number of techniques as detailed below.



The Performance Assurance Framework (PAF) provides various techniques that offer assurance. As the BSC Auditor, KPMG will use the findings of a number of PAF techniques to support and enhance our assurance work.

The following diagram provides an overview of the PAF and the areas we will consider as part of our assurance work.

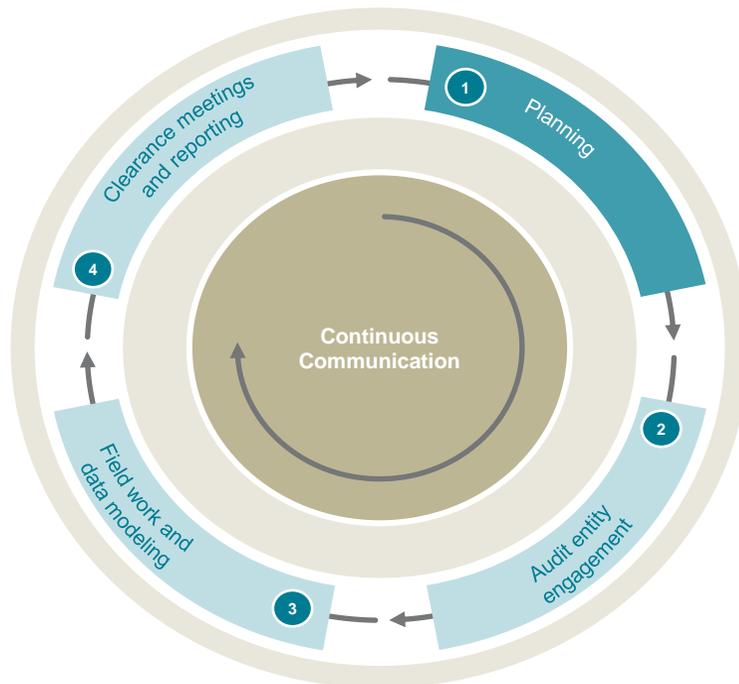


BSC Audit phases

The BSC Audit Engagement is structured over four phases:

1. Planning
2. Audit Entity Engagement
3. Fieldwork and Data Modelling
4. Clearance meetings and Reporting

The BSC Audit Engagement is structured over four phases as set out in the diagram below.



1. Planning

Risk assessment and Audited Entity selection

Utilising information and available data the BSC Auditor will determine the risk associated with each market participant to the completeness, validity and accuracy of allocations and Settlement and, therefore, the extent to which they should be subject to assurance techniques. A rotational approach is also followed to ensure that each market participant is subject to full scope assurance procedures at least once every four years.

These sources of data include:

- PARMS data;
- TAA Audit Findings;
- Number of (and changes in the number of) MPANs managed by the market participant;
- Open Audit Issues, including the length of time those issues have been open;
- Accumulated knowledge and experience of the industry and market participants;
- OSM knowledge with respect to changes in people, processes and systems at participants; and
- Output from the Qualification Service and re-qualification requests.

A separate *Audit Selection Document* provides further details as to the rotational approach, selection criteria and market participants in scope for the BSC Audit Engagement during each assurance period.

The audited entity selection process and design of the assurance procedures are informed by the mapping of Industry Risks per the Risk Evaluation Register to relevant sections of the BSC, The Code Subsidiary Documents ('CSDs') and the BSC Audit Scope as set by PAB.

2. Audit Entity Engagement

Prior to each testing period a planning meeting will be held with nominated representatives at in-scope entities. For new market entrants an extended planning meeting will be scheduled to introduce the BSC Audit, assurance procedures and tools used by the BSC Auditor such as the on line portal. Following the planning meeting an *Audit Planning Memorandum ('APM')* will be sent to each in scope audited entity. This will detail, amongst other information, a tailored work programme, engagement timeframes, key contacts and data requests as discussed in phase 3.

BSC Audit phases (continued)

The BSC Audit Engagement is structured over four phases:

1. Planning
2. Audit Entity Engagement
3. Fieldwork and Data Modelling
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3. Field Work and Data Modelling

Site visits for fieldwork will take place throughout the assurance period and will generally occur between October and April. The BSC Assurance Opinion covers a 12 month period. As such, some year-end fieldwork will be required at most audited entities. The timing of this work will be agreed with audited entities during the audit entity engagement phase.

Data Assurance Techniques

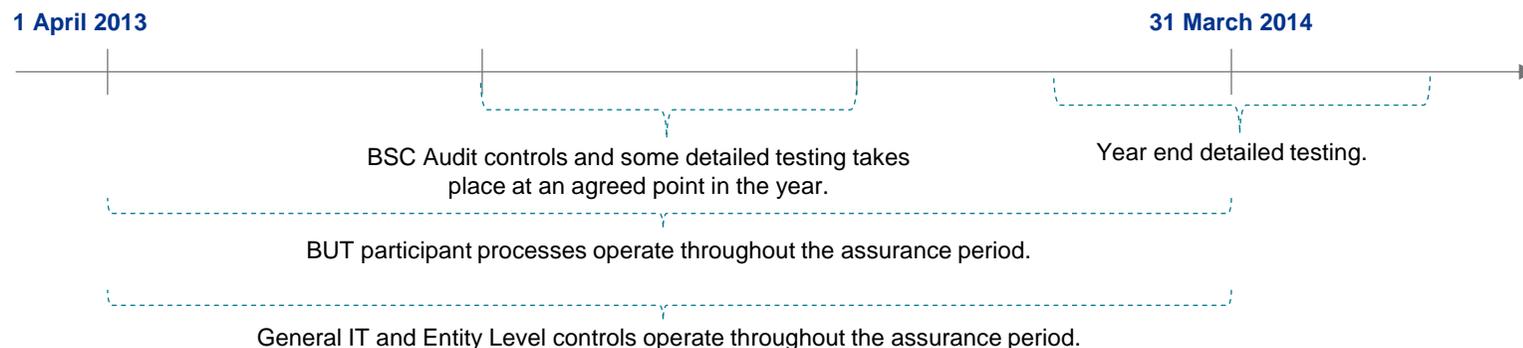
The BSC contains complex calculations with respect to deriving generation and consumption, aggregation, allocation, apportionment and settlement. A number of models will be utilised by the BSC Auditor to support the BSC Audit Engagement. The models use source data provided by Market Participants and re-perform the calculations to verify their accuracy.

Specific data requests to support the operation of the models are included in the Audit Planning Memoranda sent to in-scope entities (see phase 2) in advance of testing.

Systems and Controls Testing

- General IT and Entity Level Controls

As set out in the timeline below, our testing approach is based on performing detailed testing at in-scope entities, the timing of which is spread over more of the assurance period rather than being concentrated towards the year end. To facilitate this testing we need to obtain assurance that the design and configuration of processes at participants that support the BSC have remained consistent during the assurance period. To obtain this level of assurance we will test General IT and Entity Level Controls operating across the period, as illustrated below:



BSC Audit phases (continued)

The BSC Audit Engagement is structured over four phases:

1. Planning
2. Audit Entity Engagement
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■ General IT and Entity Level Controls (continued)

Risk to the effective operation of process-level controls	General control objective	Control types
Assignment of inappropriate and/or excessive IT systems access permissions may result in unauthorised changes to the configuration of IT-enabled business process controls and/or manipulation of the data over which these controls operate.	Logical and Physical Access Management controls provide reasonable assurance that the integrity of the configuration of process-level controls and the data over which these operate is maintained throughout the period.	Physical access
		Authentication controls
		User management
Inappropriately designed, unauthorised and/or untested changes released to the IT systems may result in the ineffective operation of business process controls, data corruption or system security breaches.	System Change Management controls provide reasonable assurance that the integrity of the configuration of process-level controls and the data over which these operate is maintained throughout the period.	Requirements definition
		Testing procedures
		Stakeholder approval
Failure to adequately monitor the IT environment may result in loss of data integrity during data processing or failure to remediate IT-enabled control failures in a timely fashion.	IT Operational Management controls provide reasonable assurance that risks to data integrity through data processing and IT control failure are identified appropriately escalated and resolved in a timely fashion.	System Monitoring
		Problem Management

■ Process Controls

During and following the 2013/14 period the BSC Audit will increasingly focus on the risks to Settlement and the extent to which controls have been implemented at market participants to effectively manage and/or mitigate these risks.

For the 2013/14 BSC Audit the following two key Settlement Risks have been included in the BSC Audit Scope and as such we will provide assurance on the controls over these risks at the audited entities. The BSC Auditor will work with in-scope entities to determine the process-level controls that have been implemented to address these risks and assess the appropriateness of design and operational effectiveness of these controls.

Industry Risk reference	Industry Risk description
SR0022	The risk that HHMOAs do not provide correct Meter Technical Details to the HHDCs resulting in Meter readings being misinterpreted or not collected.
SR0072	The risk that NHHDCs process incorrect Meter readings, resulting in erroneous data being entered into Settlement.

The BSC Audit Engagement is structured over four phases:

1. **Planning**
2. **Audit Entity Engagement**
3. **Fieldwork and Data Modelling**
4. **Clearance meetings and Reporting**

Detailed Testing

Detailed testing involves inspection of a selection of transactions and records at Audited Entities to verify that they have been created and/or processed in compliance with the BSC or to establish completeness, validity and accuracy at the data flow or metering system level.

The number of items selected for detailed inspection at each audited entity will be determined by the BSC Auditor dependent on the:

- Size of the population of items/number of transactions;
- Maturity of the processes operated by the Audited Entity;
- Knowledge, experience and skills of the process operators;
- Changes to IT systems at the Audited Entity;
- Inherent risks associated with the processes operated by the Audited Entity; and
- Open issues/observations relating to non-compliance with the BSC

Specific data requests including number of items selected for detailed testing are included in Audit Planning Memorandums provided to each Audited Entity in advance of testing.

4. Clearance Meetings And Reporting

Observations

At the conclusion of testing at each Audited Entity the BSC Auditor will classify and rank observations based on whether they have resulted in a non-compliance with the BSC and whether the non-compliance has resulted in a material impact on the completeness and/or accuracy of imbalance Settlement. KPMG will discuss observations with audited entities as they arise to determine compensating/mitigating activities in place at the entity. A clearance meeting will be held with audited entities to discuss and formally agree observations raised by KPMG.

Ratings for observations have been defined as follows:

- BSC(P) Amendment – the BSC(P) no longer reflects industry/market processes and, as such, requires review;

Ratings for observations (continued):

- Material non-compliance – a non-compliance with the BSC which, if uncorrected, will impact on the completeness and/or accuracy of Settlement. In this case we will assess the impact as High, Medium or Low, depending on the estimated overall potential impact on Settlement;
- Immaterial non-compliance – a non-compliance with the BSC which will not significantly impact on the completeness and/or accuracy of Settlement; and
- Process improvement – the BSC appears to have been complied with but the BSC Auditor has identified the potential for process and/or control improvements at the audited entity.

Where instances of non-compliance have been noted by the BSC Auditor, depending on their significance these may be subject to the Error & Fault Resolution ('EFR') processes operated by ELEXON.

Reporting

Following clearance meetings, immaterial non-compliance and process improvement observations will be formally reported to the audited entity in the form of a 'Management Letter', which will be shared with ELEXON. Audited entities will be requested to provide management responses to observations detailing the actions they plan to take to address these observations and progress against these actions will be monitored by the BSC Auditor. It is likely that these matters will not be subject to the EFR process.

All Material Non-compliances will be reported to PAB.

An annual *BSC Audit Report* will be issued in June of each year by the BSC Auditor as discussed above. Where non-compliances have resulted in an impact to Settlement the impact will be extrapolated across all affected MPANs and aggregated over the assurance period. PAB have set a materiality threshold of 1.5TWh for the current assurance period (i.e. the year ending 31 March 2014).

BSC Audit phases (continued)

The BSC Audit Engagement is structured over four phases:

1. Planning
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Where non-compliances have an aggregated Settlement impact greater than the materiality threshold, the Assurance Opinion in the BSC Audit Report will be qualified by the BSC Auditor. Equally, should the BSC Auditor determine that there are insufficient controls operating across the industry so as to effectively mitigate the two Settlement risks SR0022 and SR0072, a qualified Assurance Opinion will also be issued. Issues of significance and industry best practice in respect of those issues will be reported in full within the 'Emphasis of Matter' section of the BSC Audit Report. The 'Emphasis of Matter' section therefore contains matters which are of sufficient importance by their nature that we feel it appropriate to bring them to the attention of the recipients of the report.

An indicative time-line for delivery of the annual BSC Audit Report is illustrated below.





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