



*cutting through complexity*

**ELEXON**

**BSC Audit Approach  
Document (Non-  
confidential)**

Year ending 31 March 2015



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## Overview of 2013/14

In our 2013/14 audit we highlighted that many of the issues identified in previous BSC Audits remained largely unresolved, and have existed for some time, in certain cases for more than 10 years. Real focus is required in the current year on monitoring these issues and putting in place focussed measures to address them.

Based on our work there were two key areas of concern:

1. Issues relating to Metering
2. Data quality issues in the Non Half Hourly Market

PAB have identified five areas of focus going forward as shown in the audit issues heat map opposite.

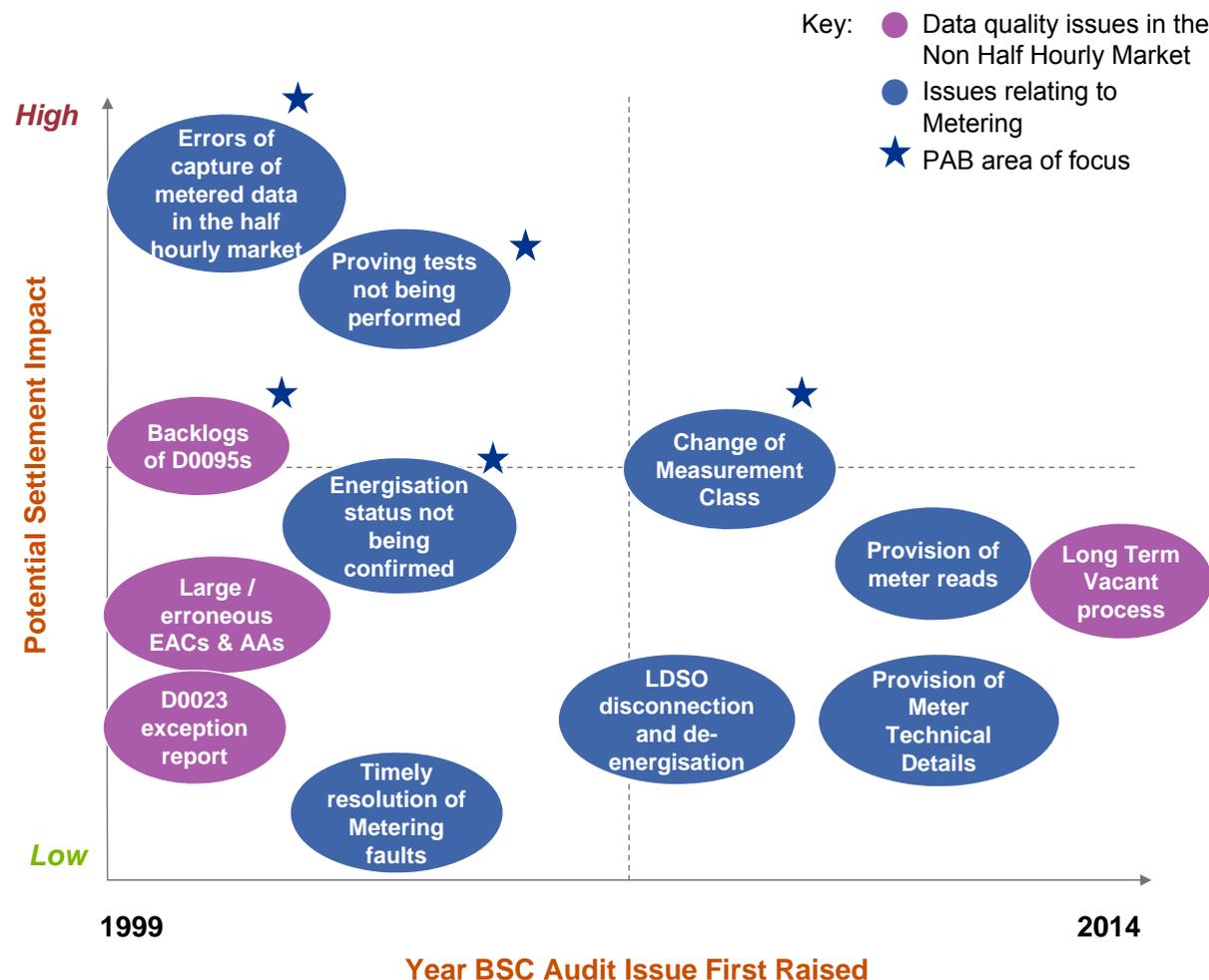
Additionally, our controls work in 2013/14 around SR0022 and SR0072 indicated that there is a lack of robust, auditable controls across many participants in the industry.

## Focus areas for 2014/15

Our audit test work will be aligned to the key settlement risks. Until the controls environment has improved our audit will be substantive in nature (i.e. sample testing). We will use the DTN data to provide more focussed exception testing.

As part of our planning we will enquire with audited entities about their progress in addressing the long-standing audit issues. This will be corroborated and tested during our fieldwork. Our findings will be reported to PAB and the Panel.

If little progress has been achieved since our 2013/14 audit, then PAB and the Panel will need to develop their plans further to address these issues.



### 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 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 2014 to 31 March 2015' 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 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, as the BSC Auditor for the year ending 31 March 2015, 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 2015 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 – '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.

### 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; 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 2015 is 1.5TWh as set out in the BSC Audit Scope 2014/15 document published in March 2014.

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

### Consideration of the work of others

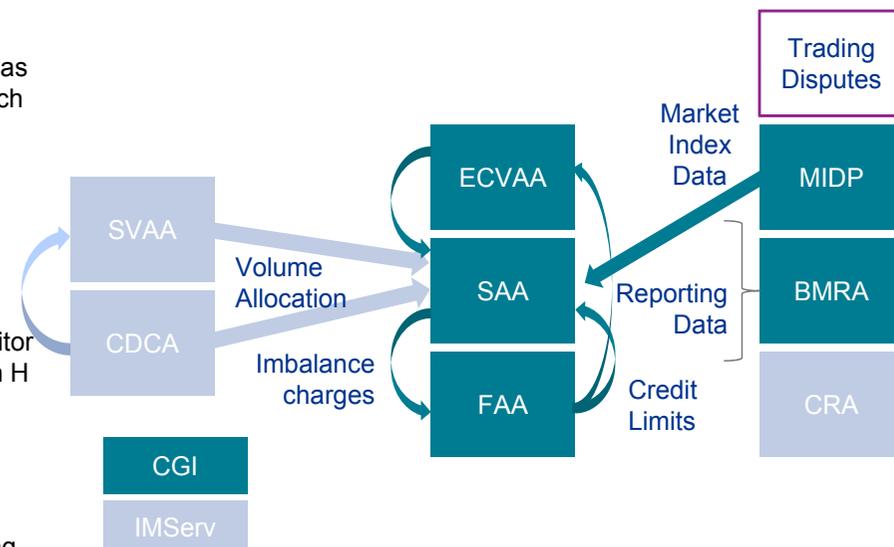
The Balancing Mechanism ('BM') Audit is conducted by the BM Auditor who is appointed by the Transmission Company pursuant to Section H paragraph 5.1.6 of the BSC.

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 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 over the operation of the Central Settlements Systems. The scope of the audit of the Central Settlements Systems is shown below.



KPMG are adapting the audit approach in year 2 to fit better with specific circumstances at audited entities.

The key changes in the 2014/15 BSC Audit approach are:

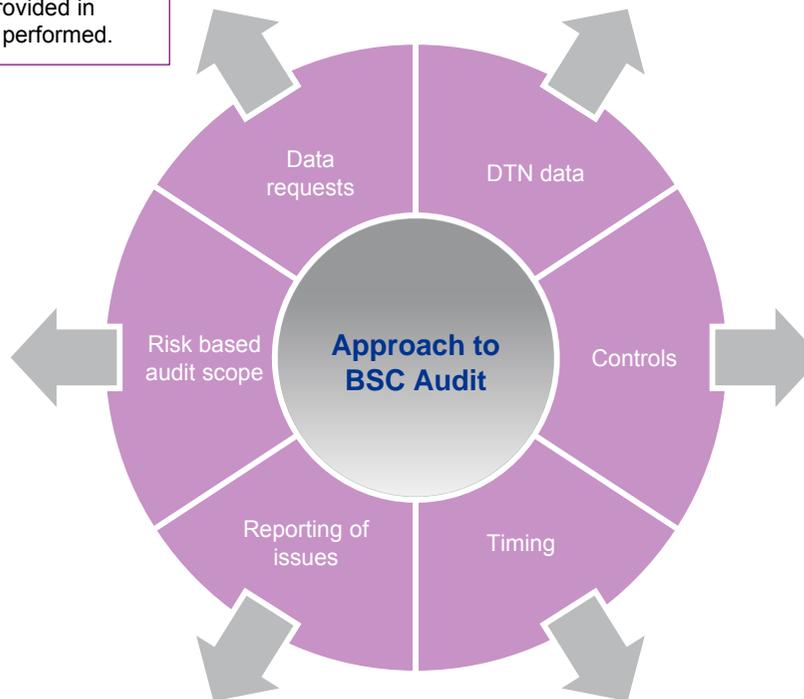
- Use of data analytics where entities use the DTN
- Relying on internal process and where possible controls for vertically integrated organisations
- Adapting the timing and reporting of issues to provide quicker feedback and insight to audited entities following completion of the fieldwork
- Focus our testing on areas of significant settlement risk

**Data requests**  
See DTN box. Data requests will be simplified, further leveraging off the DTN data provided by Electoralink.  
  
Modeling data requests to be reviewed to ensure a complete listing is provided in advance of procedures being performed.

**Data Transfer Network (DTN) data**  
In relation to some specific tests, KPMG will use the DTN data to identify potential exceptions prior to the fieldwork, and a sample of those will be sent to parties for follow up in advance of the site visits.

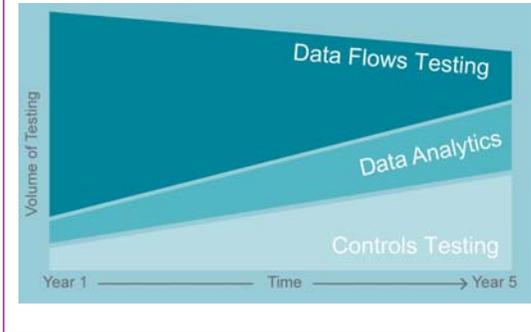
**Controls approach**  
Where appropriate, KPMG will take a controls based approach. This is likely to be at organisations with a mature and robust control environment and vertically integrated entities who have internal controls to address BSC requirements.  
  
Following our controls work around SR0022 and SR0072 in 2013/14 there is a considerable step change required to control documentation before we can take a full controls approach across the market. ELEXON will be commencing work on this during the current year.  
  
The diagram below depicts how we perceive the balance of controls testing to evolve in the future.

**Risk focused audit scope**  
Complete review of audit procedures and scope, including aligning testing performed to Settlement Risks.



**Reporting of issues**  
In line with the updated timings, issues will be moderated separately for pre and post Christmas audits to aid in the timely communication of audit findings to market participants.  
  
All findings will be recorded directly into the issues database.

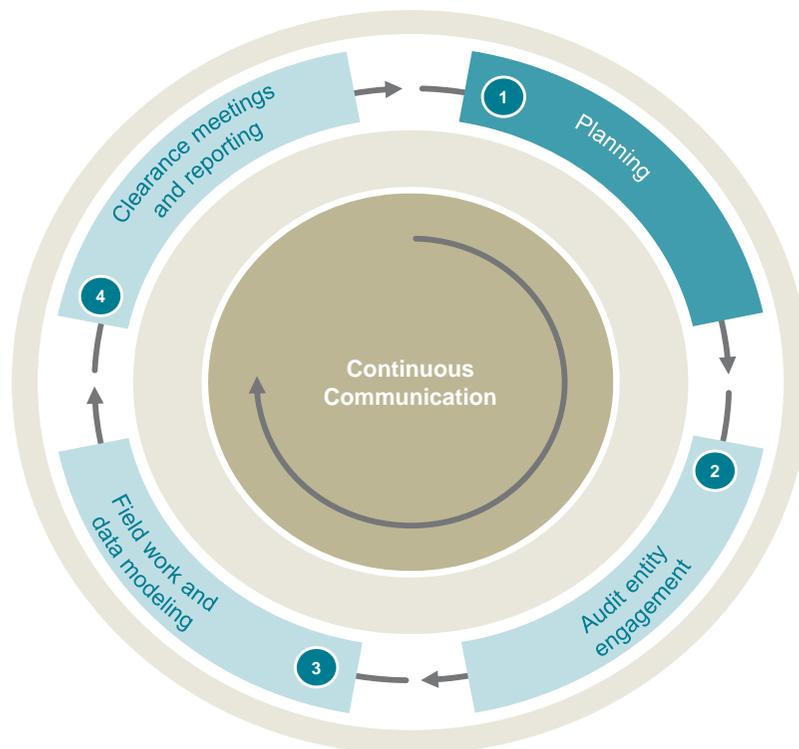
**Timing**  
Following the approach taken in 2013/14 on site fieldwork testing will be conducted pre and post Christmas.  
  
As in the 2013/14 BSC Audit KPMG will be requesting management representation letters (from suppliers) as required by the ISAE 3000 assurance standard we are performing our work under. The template letter will be included as an appendix to the Audit Planning Memorandum (the planning document discussed at each audit kick off meeting).



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. Prior to the planning meeting a draft *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. Final versions of this document will be issued following the planning meeting.

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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 November 2014 and April 2015. The BSC Assurance Opinion covers a 12 month period. The timing of this work will be agreed with audited entities during the audit entity engagement phase.

#### Data Assurance Techniques

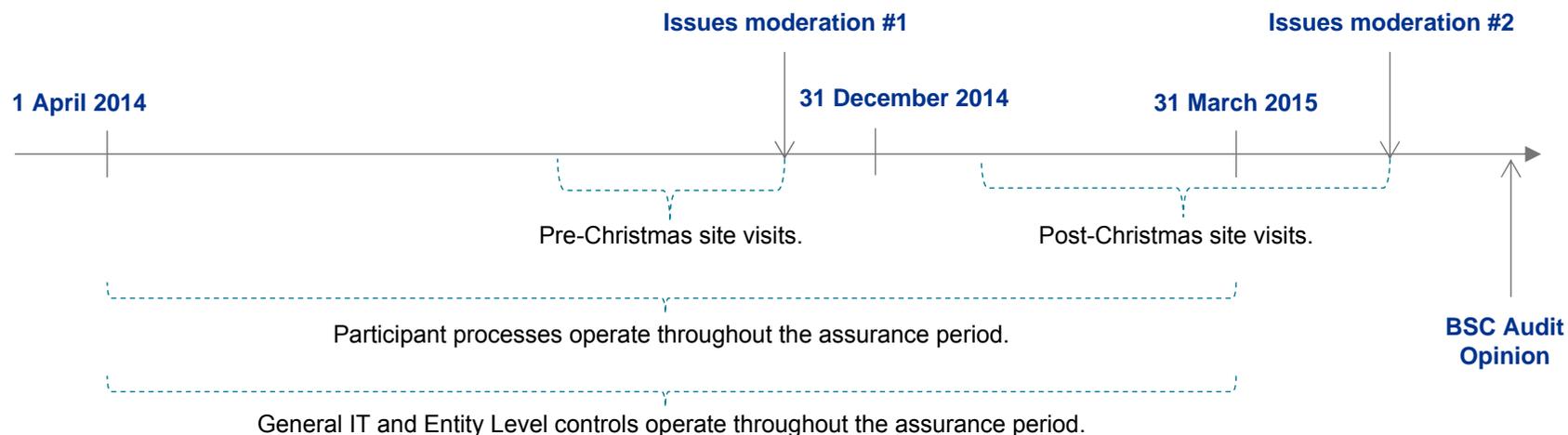
The BSC contains complex calculations with respect to deriving generation and consumption, aggregation, allocation, apportionment and settlement. A number of models will be utilised by the BSC Auditor to support the BSC Audit Engagement. The models use source data provided by Market Participants and 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 assist in obtaining this level of assurance we will consider the General IT and Entity Level Controls operating across the period, as illustrated below:



The BSC Audit Engagement is structured over four phases:

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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

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■ **Process Controls**

*Background*

The results of our testing and enquiry procedures over SR0022 and SR0072 as part of the 2013/14 BSC Audit indicated that there is considerable variability in the nature and extent of controls employed across the industry's HHMOs and NHHDCs. In summary the key issues were:

- Whilst in most cases BSC Party agents had processes in place to adhere to the requirements of the Code (and certain of these processes could form part of a wider control environment), those underlying processes are not themselves controls and the Code does not specify the controls;
- The controls are, in general, not documented to adequately describe what controls are in place. Controls documentation would normally contain key details such as who is responsible for the control, how often it is performed, the risk that is being addressed and what happens to exceptions;
- No audit trail to evidence the operation of the control, so we would be unable to determine if the control was operating effectively; and
- Key control steps relating to the review and follow up of exception reports are not present or not documented.

**Impact on BSC Audit Approach**

*Controls testing*

Given our findings from our 2013/14 BSC audit we are not planning to place significant reliance on controls for the 2014/15 audit.

ELEXON are expecting market participants to develop more robust control documentation and audit trails such that we can start to rely on those controls for the 2015/16 BSC Audit.

*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 and accuracy at the data flow or metering system level information.

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 the number of items selected for detailed testing are included in Audit Planning Memoranda provided to each Audited Entity in advance of testing.

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#### 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 potential impact on the completeness and/or accuracy of imbalance Settlement, or not. 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:

- 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 is unlikely to have a direct impact on the completeness and/or accuracy of Settlement. These observations will be categorised as 'management letter points'; 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 reported to the audited entity as management letter points within an overall audit issues document that will set out the material non-compliances noted from our audit. The audit issues document will be shared with ELEXON.

For management letter points 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.

For Audited Entities that are subject to audit before Christmas, draft final issues documents will be distributed early in the new year to facilitate timely reporting of the BSC Audit findings.

##### **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 potential impact will be assessed across all affected MPANs and aggregated over the assurance period. The materiality threshold for the BSC Audit is 1.5TWh for the current assurance period (i.e. the year ending 31 March 2015).

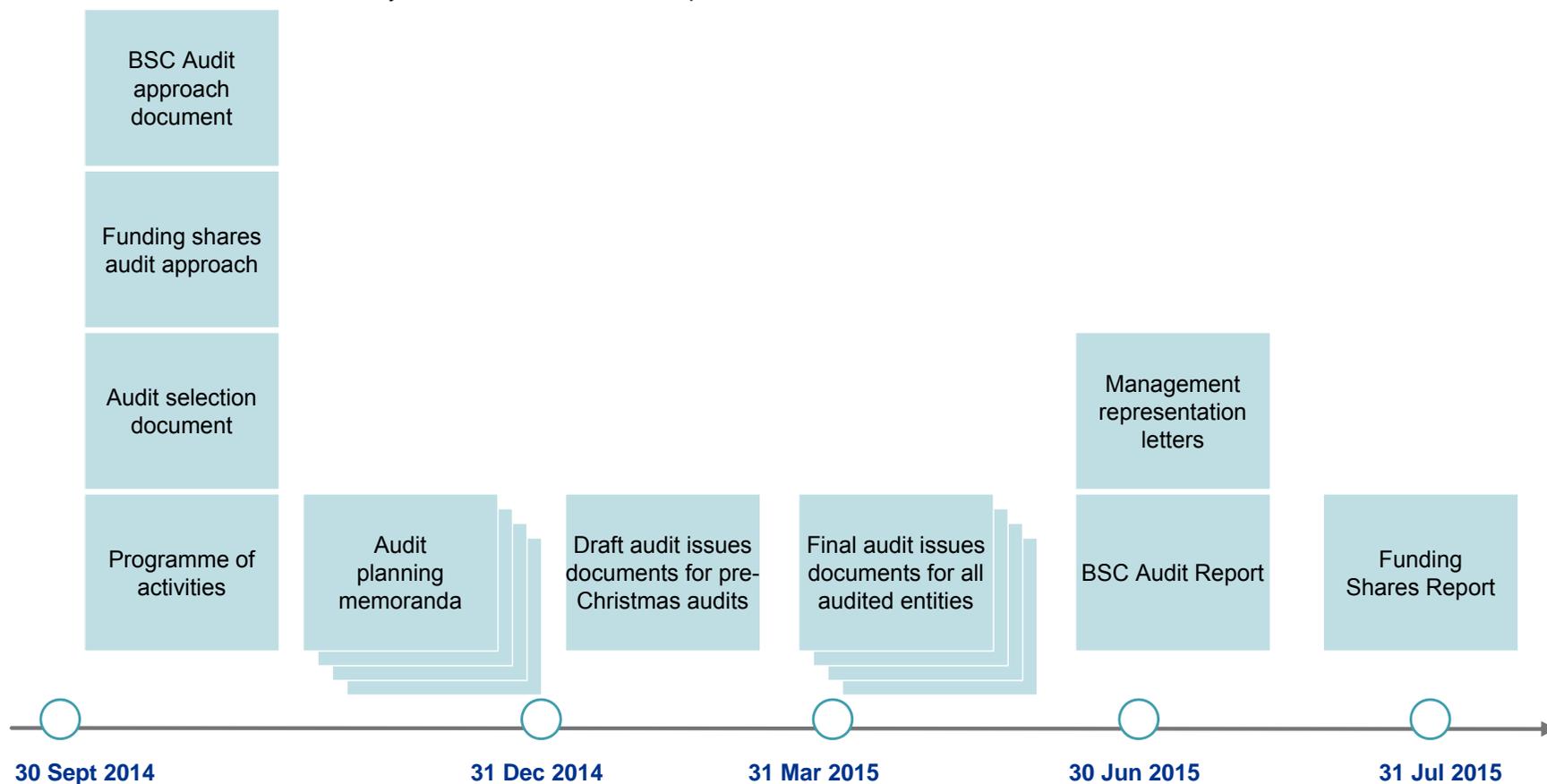
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Where non-compliances have an aggregated Settlement impact greater than the materiality threshold, the Assurance Opinion in the BSC Audit Report will be qualified by the BSC Auditor. Issues of significance and industry best practice in respect of those issues will be reported in full within the 'Statement of Significant Matters' section of the BSC Audit Report. The 'Statement of Significant Matters' 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.

As in 2013/14 we will be requesting Suppliers to sign management representation letters prior to the BSC Audit Report being issued. A draft of the letter will be included in the Audit Planning Memoranda discussed at the supplier planning meetings.

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





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