

Classification: Public

BSC Audit Approach 2018/19 (SVA Market)

Year ending 31 March 2019

October 2018

Contents

03 Executive summary

04 Changes to the BSC Audit

06 SVA Market Approach
(Process Assessment)

09 Operational Approach

13 Appendices

Appendix A
BSC Audit findings rating methodology

Appendix B
Glossary of terms

The contacts at ELEXON
in connection with this report are:

Jason Jackson

Technical Auditor, BSC Operations

Tel: +44 (0)20 7380 4187

Jason.Jackson@elexon.co.uk

Chris Stock

Compliance Analyst, BSC Operations

Tel: +44 (0)20 7380 4131

Chris.Stock@elexon.co.uk

Executive Summary

Following external industry consultation, the scope of the BSC Audit* for 2018/19 was changed with Central Systems and CVA MOA included within an ISAE 3000 reasonable assurance report, and SVA market moved outside the ISAE 3000 assurance conclusion and into more targeted process testing (called "Process Assessment") which will feed into ELEXON's Process Assurance Framework (PAF). For Process Assessment, ELEXON will be responsible for the scope of testing. The nature of the onsite testing will remain broadly consistent with prior year's BSC audits but will be more targeted at specific market roles and BSC Parties which are considered of highest risk to the accuracy of Settlements (see slides 4 and 5 for further details).

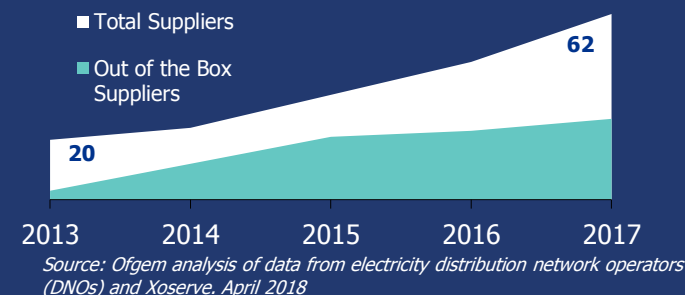
The following emerging market developments and risks to Settlements have been considered and built into the BSC Audit approach for the 2018/19 BSC Audit year:

- **Off-the-shelf Performance Assurance Parties (PAPs):** there has been a significant rise in the number of off-the-shelf Suppliers and Party Agents with reliance on managed services. This continuing trend creates over dependency on single points of failure.
- **Dilution of market knowledge:** the introduction of new Suppliers and Agents, and a tighter resource pool to recruit from, is increasing the risk to Settlements due to errors in manual processes, greater backlogs of flows and loss of company specific knowledge as the churn of people within the industry increases.
- **Performance Metrics:** P272 led to the migration of many AMR meters from NHH to HH, leaving the NHH market with a higher proportion of non-AMR and harder to read meters and significantly increasing the size of the HH market. Other initiatives will continue to markedly alter the market, so the challenge is ensuring that the performance metrics keep up with the continually changing nature of the market.
- **Mergers and acquisitions:** increasing mergers and acquisitions (and companies going bust) within the market is leading to risks relating to integration of systems, staff and processes, all of which have been seen in the past to be root causes of Settlement impacting errors.

This approach document outlines other risks in detail and discusses the approach for the SVA Market through consideration of Settlement risks and key issues, operational approach and timelines.

*References in this document to the BSC Audit refer both to the work performed for the purpose of the ISAE 3000 Assurance Conclusion and the Process Assessment.

Number of Domestic Suppliers in the Market



Big 6 Market Share



Source: Ofgem analysis of data from electricity distribution network operators (DNOs) and Xoserve. April 2018

Changes to the BSC Audit

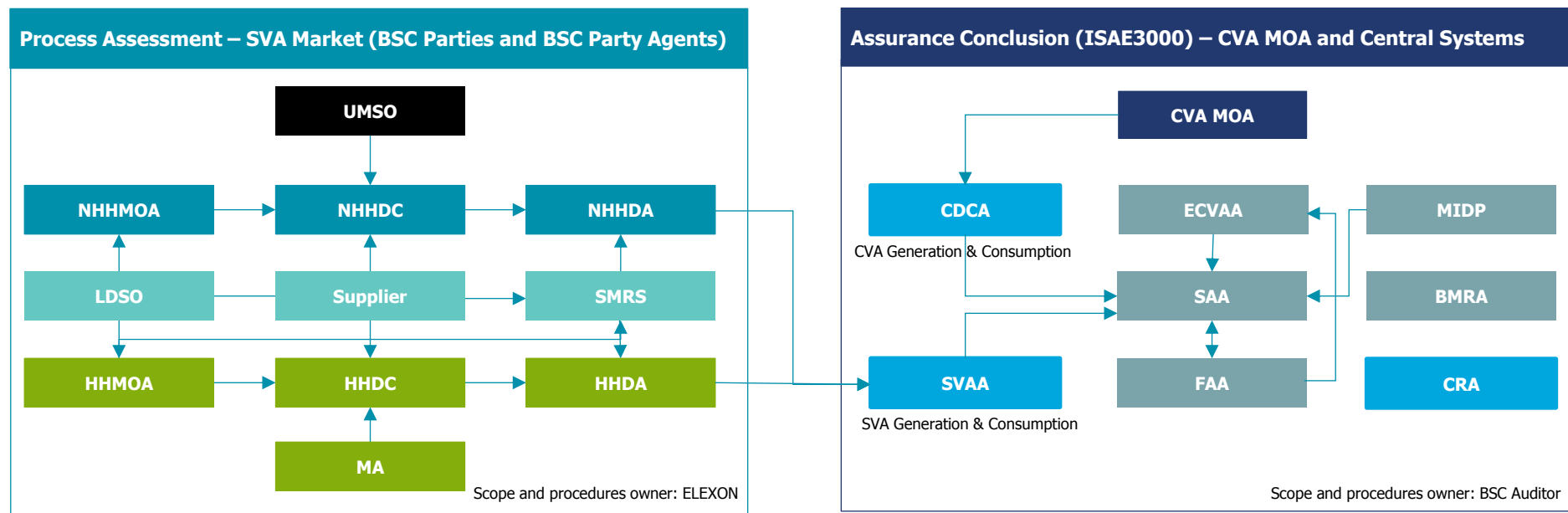
The BSC Audit is changing

Following changes in BSC Audit Scope, starting this year the BSC Audit will be delivered in two distinct streams of work: Central Systems and Central Volume Allocation Meter Operator (CVA MOA) will remain within the scope of an ISAE 3000 Assurance Conclusion; and Supplier and Supplier Volume Allocation (SVA) Agents will be within the scope of a new and tailored Process Assessment engagement, forming part of ELEXON's Process Assurance Framework (PAF). These changes have been carefully considered by ELEXON and included external industry consultation.

Assurance Conclusion (ISAE 3000): The BSC Auditor will continue to issue an Independent ISAE 3000 Assurance Conclusion over Central Systems and CVA MOA. In practice, this means the approach to testing this area of Settlement processes will largely remain consistent with prior year. The BSC Auditor will issue a Reasonable Assurance Report and present it to PAB and Panel.

Process Assessment: For the SVA Market, the BSC Auditor will not be issuing an Assurance Conclusion over the SVA market. ELEXON will be responsible for the scope detailed on site work as well as the owner of the conclusions reached on the assessment. Testing at market participants will be performed in a similar way to previous years. ELEXON will issue a report summarising the key findings, which will be presented to PAB and Panel.

The diagram below outlines how the scope of the BSC Audit in the prior year will be split between Process Assessment and the ISAE 3000 Assurance Conclusion.



Changes to the BSC Audit (cont.)

How has the BSC Audit changed from last year?

The table below outlines how the changes described on slide 4 will affect various individual areas of the BSC Audit, comparing the activities performed in 2017/18 and the plan for 2018/19.

SVA Market - Process Assessment	
2017/18	2018/19
<ul style="list-style-type: none">▪ 60+ annual site visits performed.▪ On-site testing of process and control design and effectiveness.▪ Independent ISAE3000 Assurance Conclusion provided.▪ KPMG own scope of work.▪ Formal Management Representation Letters requested from Suppliers.▪ BSC Audit Report and ISAE3000 Reasonable Assurance Report presented to PAB and Panel, including overview of key findings and insights.	<ul style="list-style-type: none">▪ 60+ annual site visits performed; opportunity to flex scope for BSC Parties mid-year when required.▪ On-site testing of design and effectiveness performed to deliver scope set by ELEXON.▪ No ISAE3000 Assurance Conclusion provided, ELEXON will report findings to PAB and Panel.▪ ELEXON own scope of work.▪ Customised Senior Management sign-off requested from all Suppliers and SVA Agents in scope (as an equivalent to a Management Representation Letter).▪ ELEXON-owned Process Assessment Report delivered to PAB and Panel, including overview of key findings and insights. Similar format to BSC Report in prior year.

Central Systems and CVA MOA – Assurance Conclusion	
2017/18	2018/19
<ul style="list-style-type: none">▪ Independent ISAE 3000 Assurance Conclusion and reporting provided to PAB and Panel as part of the wider BSC Audit Report.	<ul style="list-style-type: none">▪ Independent ISAE 3000 Assurance Conclusion and reporting provided to PAB and Panel in a Central Systems and CVA MOA BSC Audit Report.



SVA Market Approach (Process Assessment)

Key BSC Audit findings in SVA Market 2017/18

BSC Audit 2017/18 findings summary

Key findings noted by the BSC Auditor in the 2017/18 BSC Audit report have been considered, as set out below, to scope the Process Assessment fieldwork.

The number of BSC Audit findings from 2017/18 is consistent with 2016/17. The proportion of Medium and High rated issues, however, has increased and those are spread across a relatively small number of parties. Likewise, the volume of issues in the HH Market has increased, partly reflecting the increase in HH Metering due to P272 – that altered the balance between NHH and HH market.

There has been a rapid growth in the number of smaller Suppliers and Agents and the knowledge of Settlement processes within the industry spread more thinly, meaning a greater number of issues where the root cause is human error and lack of training.

Impact of Metering system faults not resolved in a timely manner increased significantly, partially due to a small number of Parties experiencing rapid growth without appropriately robust processes in place to handle the increased demand. Additionally, the impact of Incomplete or delayed provision of meter reads and Meter Technical Details increased due to the rise in number of meter exchanges and change of Agent events. Commissioning is also a new key issue, as a result of the timing requirements introduced by CP1458.

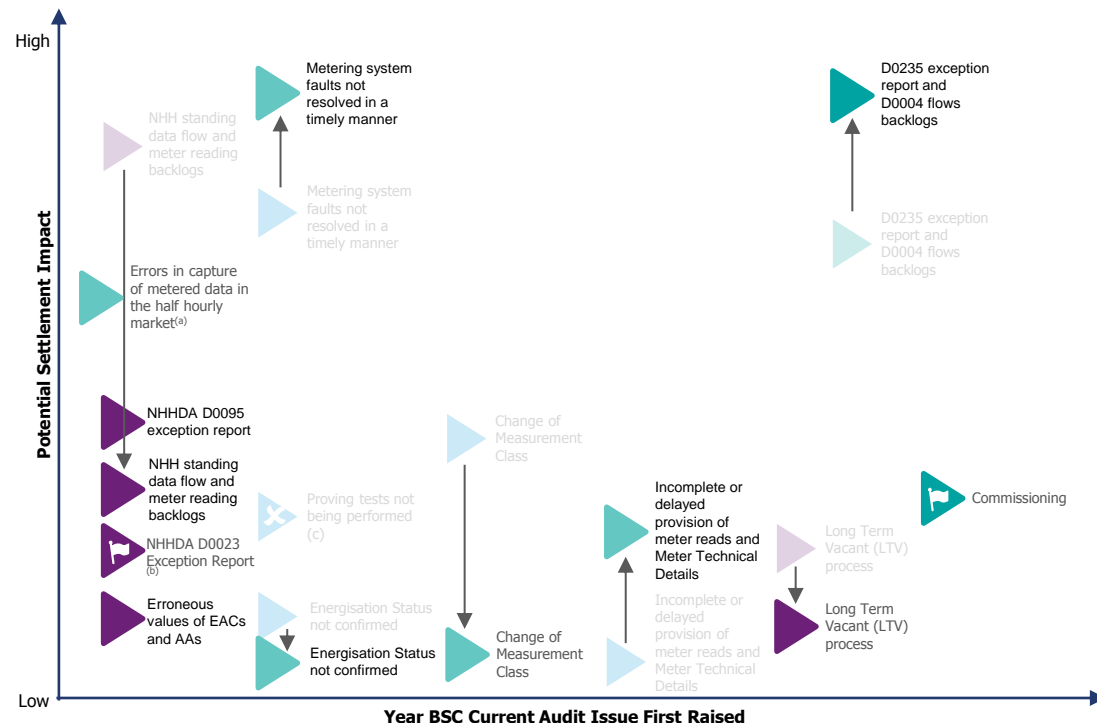
Issues surrounding the Resolution of D0235 exception report and D0004 flow backlogs remains prevalent in the HH market.

NHH Standing data flows and meter reading backlogs and Change of Measurement Class both saw significant improvements during the previous audit period. Much of this can be attributed to the completion of the majority of P272 CoMCs.

The 'heat map' opposite shows the individual categories of issues open from the 2017/18 BSC Audit, split by age, with movement compared to prior year and potential Settlement impact. The previous year position of an issue is indicated by a partially transparent triangle. Arrows indicate the direction of change and the solid triangle dictates current year impact position. New or re-opened issue categories have been shown using a flag icon within the triangle, and closed issues are marked with a cross and appear partially transparent.

Medium and High issues identified in Process Assessment fieldwork will continue to align with ELEXON's EFR process and adapt to new Settlement risks.

Heat map showing potentially Settlement impacting audit issues identified by the BSC Auditor in 2017/18 BSC Audit Report (arrows indicate the movement since the 2016/17 BSC Audit)



- Key:
- ▲ Data quality issues in the Non Half Hourly Market
 - ▲ Data quality issues in the Half Hourly Market
 - ▲ Issues relating to Metering
 - ✕ Category not reported as significant
 - 🚩 New issue opened

- Note:
- (a) As reported by the Technical Assurance Agent (TAA), whose work was outside of the scope of 2017/18 Assurance opinion.
 - (b) Reported originally back in 1999, however was deemed to not be material as of 2015. In 2017/18 this issue increased in significance again, as such was re-opened for the 2017/18 year.
 - (c) Closed for the 2017/18 period due to error recorded against the issue being immaterial to the overall quantification calculations.

Approach to SVA Market: Highlight areas

The table below shows the highlight areas where Process Assessment work will place the most emphasis in 2018/19. They include industry driven aspects such as Significant Issues and major themes of the testing strategy.

Area	Activity
Significant Issues	In previous BSC Audit cycles, emphasis have been put on significant issues, such as Resolution of Metering Faults or Backlogs of D0095s and D0235s, and this will be maintained. All of the most significant issues will be part of the testing programmes for all levels of intensity.
Process Assessment work scope and Changes in 2018/19	<p>Test programmes will be aligned to ELEXON BSC Audit Scope 2018/19. A new Entity Selection criteria is in place determining frequency and triggers for site visits. This takes into account revised thresholds, number of Settlement impacting issues and judgement by ELEXON.</p> <p>As an example, ELEXON assessed the tests with no or 'low risk' issues in the previous three years, which will be de-prioritised as part of the regular site visits. Testing relating to D0023 resolution at SMRAs and transmission of data to correct DA by DC have been moved out of scope as these are covered by the D0095 testing performed with Suppliers.</p>
Continue to use DTN data	Data Aided Audit Techniques (DAAT) will continue to provide a more robust and insightful audit. The existing scripts are being reviewed to improve their accuracy.
'Off the shelf' PAPs	Qualified Applicants can differ from organisations operating in the market, especially in case of those who qualify through the 'Off-the-shelf' route or are undergoing a change in managed service provider. As such, there is the concern that sufficient experience and processes are not in place in order to operate effectively in terms of Settlement. A number of these PAPs are in scope for Process Assessment testing, which will allow to gain visibility on the adequacy of the experience and processes in place at such PAPs. There will be also the opportunity to bring any such parties into scope for testing if triggered by new ownership or significant growth. The risk posed by 'off-the-shelf' PAPs noted in the fieldwork will be reported to PAB.
Change of Measurement Class (CoMC)	With the completion of P272, the volume of CoMC instances triggered has significantly reduced however the 2018/19 Process Assessment will include new tests to investigate the root cause and justification for CoMC from HH to NHH.
Spotlight on Market Issues	The impact severity of Market Issues will be reflected in the testing approach. Testing and discussions held in the 2017/18 BSC Audit resulted in two new market issues and these have been taken into account during the scoping of the Process Assessment work.



Operational approach

Operational Approach: BSC Audit phases

1. Planning

2. Entity engagement

3. Fieldwork and data modelling

4. Clearance meetings and reporting

1. Planning

Risk assessment and entity selection

For Process Assessment work, the scope will be defined by ELEXON, including the entities which will be performing testing and the composition of each work intensity. A new testing intensity will be introduced this year, targeted intensity, which will cover a set of work programmes defined by ELEXON. This new targeted intensity will provide a more flexible and specifically tailored testing solution.

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

2. Entity Engagement

Audit Planning Memorandum ('APM') and Data Requests

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. Prior to the planning meeting, a draft Audit Planning Memorandum ('APM') will be sent to each in-scope entity outlining the timeframes, key contacts and data requested.

The APMs are being re-designed for 2018/19 BSC Audit period and will provide further details on the work that will be performed, including a description of the processes that will be covered. This will allow entities to plan more effectively the meetings that will be held on the site visits and the resources they will have to allocate to BSC Audit.

Where possible, DTN Data will be used to reduce the volume of data that parties need to provide. In order to improve the BSC Audit experience, analysis is currently being undertaken with ELEXON to reduce the number of data requests through the use DTN and SMRS data.

3. Fieldwork and data modelling

Site visits for fieldwork will generally take place between November 2018 and March 2019. The timing of this work will be agreed with entities during the entity engagement phase.

For Process Assessment work over the SVA Market, on ELEXON's discretion, there will be flexibility to perform more than one site visit per year.

Detailed Testing

Detailed testing involves inspection of a selection of transactions and records at the entities where testing is being performed 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 testing work programmes have been reviewed and improved. Additionally, ELEXON will now have the flexibility to choose what programs to test in which entities. As in previous years, scripts over DTN data will be used to perform testing over full population of transactions. The existing DTN tests are being reviewed to improve their effectiveness and reduce the number of false positives. Where DTN data is used to identify potential anomalies prior to the fieldwork, a sample of these will be sent to parties for follow up in advance of the site visits, leading to a more efficient use of time whilst on site.

Operational Approach: BSC Audit phases (cont.)

1. Planning

2. Entity engagement

3. Fieldwork and data modelling

4. Clearance meetings and reporting

Data modelling 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 to support the BSC Audit. The models use source data provided by Market Participants and re-perform the calculations to check their arithmetical accuracy.

Specific data requests to support the operation of the models are included in the Audit Planning Memoranda sent to in-scope entities.

Moderation

Moderation procedures will be performed to ensure consistency.

4. Clearance Meetings And Reporting

Observations

At the conclusion of testing at each site visit, the observations will be classified and ranked based on whether they have resulted in a non-compliance with the BSC and whether it has resulted in a potential impact on the completeness and/or accuracy of Settlement, or not. The observations will be discussed with entities as they arise to determine compensating or mitigating activities in place at the entity. A clearance meeting will be held with entities to discuss and formally agree observations raised.

The ratings for observations have been defined as follows:

- Settlement impacting non-compliance – a non-compliance with the BSC which, if uncorrected, will impact on the completeness and/or accuracy of Settlement. In this case the impact will be assessed as High, Medium or Low, depending on the estimated overall potential impact on Settlement;
- Management Letter Points (MLPs) - findings which have no Settlement impact
 - 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;
 - 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 entity.

Any instances of non-compliance that have been noted and rated 'Medium' or 'High' will be subject to the Error and Failure 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 MLPs within an overall audit issues document that will set out the Settlement impacting non-compliances noted from testing. All the findings will be reported at MPAN level and the root-cause of the issue will be included. Any comments raised by entities on MLPs raised during on-site work will be taken into account, but they will not be discussed in detail during clearance meetings.

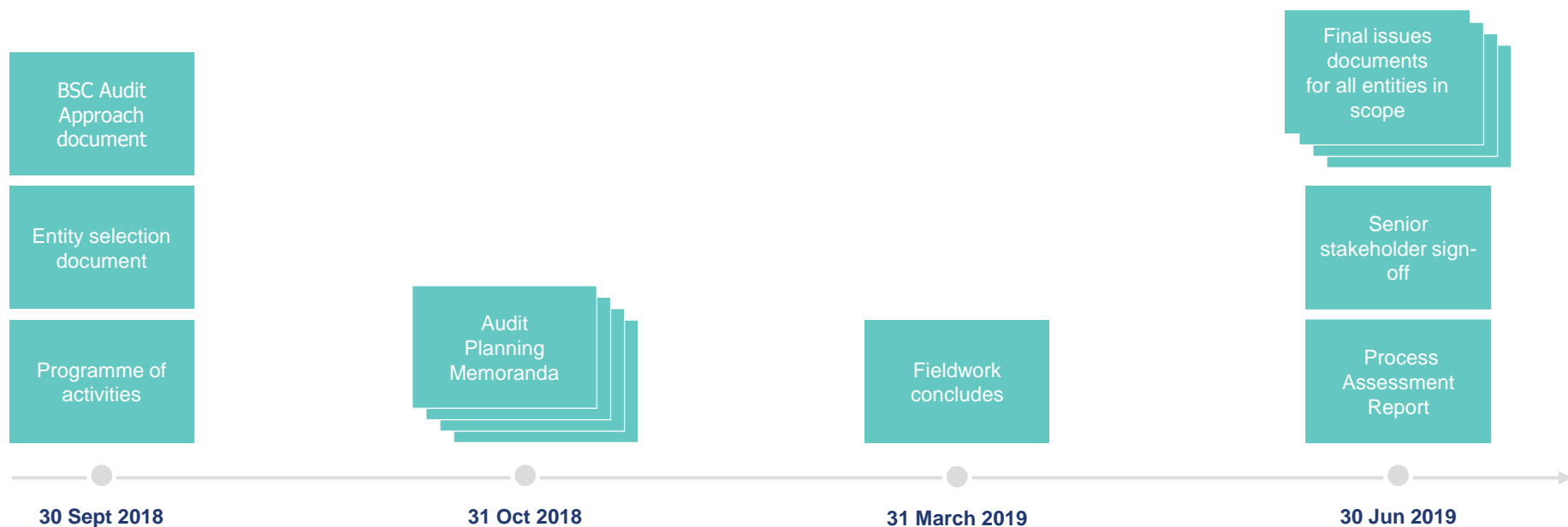
Operational Approach: BSC Audit phases (cont.)

All Settlement Impacting Non-compliances will be reported

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. For Process Assessment work performed over SVA Market, the consolidated findings will be reported by ELEXON, including issues of significance. However, no ISAE 3000 Assurance Conclusion will be issued.

SVA Parties will be requested to submit senior stakeholder sign-off letters prior to reporting the findings. These will endeavour to frame the issues and insights highlighted by the testing performed. The senior stakeholder would be defined at the planning stage, before testing takes place. The purpose of the senior stakeholder sign-off letters is to drive further engagement in the improvement of BSC compliance.

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





Appendices

Appendix A: BSC Audit findings rating methodology

Overview

For Process Assurance work, the categorisation of reporting findings will not change from previous years. The findings are categorised as either Issues or Management Letter Points ('MLP's) depending on whether there is a potential impact on the completeness and/or accuracy of Settlement.

An impact rating of High, Medium or Low is applied to each issue arising from the Process Assessment. A number of underlying principles which provide guidance as to how this will be applied are set out in this document. Issues will be considered across the entities in at an issues 'moderation' meeting to ensure the determination of ratings is consistent.

How each finding will be considered?

Each finding will be individually determined but will also be considered in the context of similar findings raised on other entities.

Two entities may have the same underlying issue but if one entity has a mitigating process or control and is responsible for a much lower error rate, impact or residual risk as a result, then a different impact rating may apply.

One split moderation session will be performed during the year, following completion of the fieldwork at all market participants. The aim of this session is to ensure a ratings consistency across each of the entities in scope.

Ratings for findings have been defined as follows:

- Settlement Impacting Non-Compliance – a non-compliance with the BSC that, if left uncorrected, may have an 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. Issues rated as High and Medium will be subject to ELEXON's Error & Failure Resolution ('EFR') processes;
- Immaterial Non-Compliance – a non-compliance with the BSC that is unlikely to have a direct impact on the completeness and/or accuracy of Settlement. These observations will be categorised as 'Management Letter Points' (MLPs); and
- Process Improvement – the BSC appears to have been complied with but the BSC Auditor has identified the potential for process improvements at the entity in scope. These observations will also be categorised as 'Management Letter Points' (MLPs).

Appendix A: BSC Audit findings rating methodology (cont.)

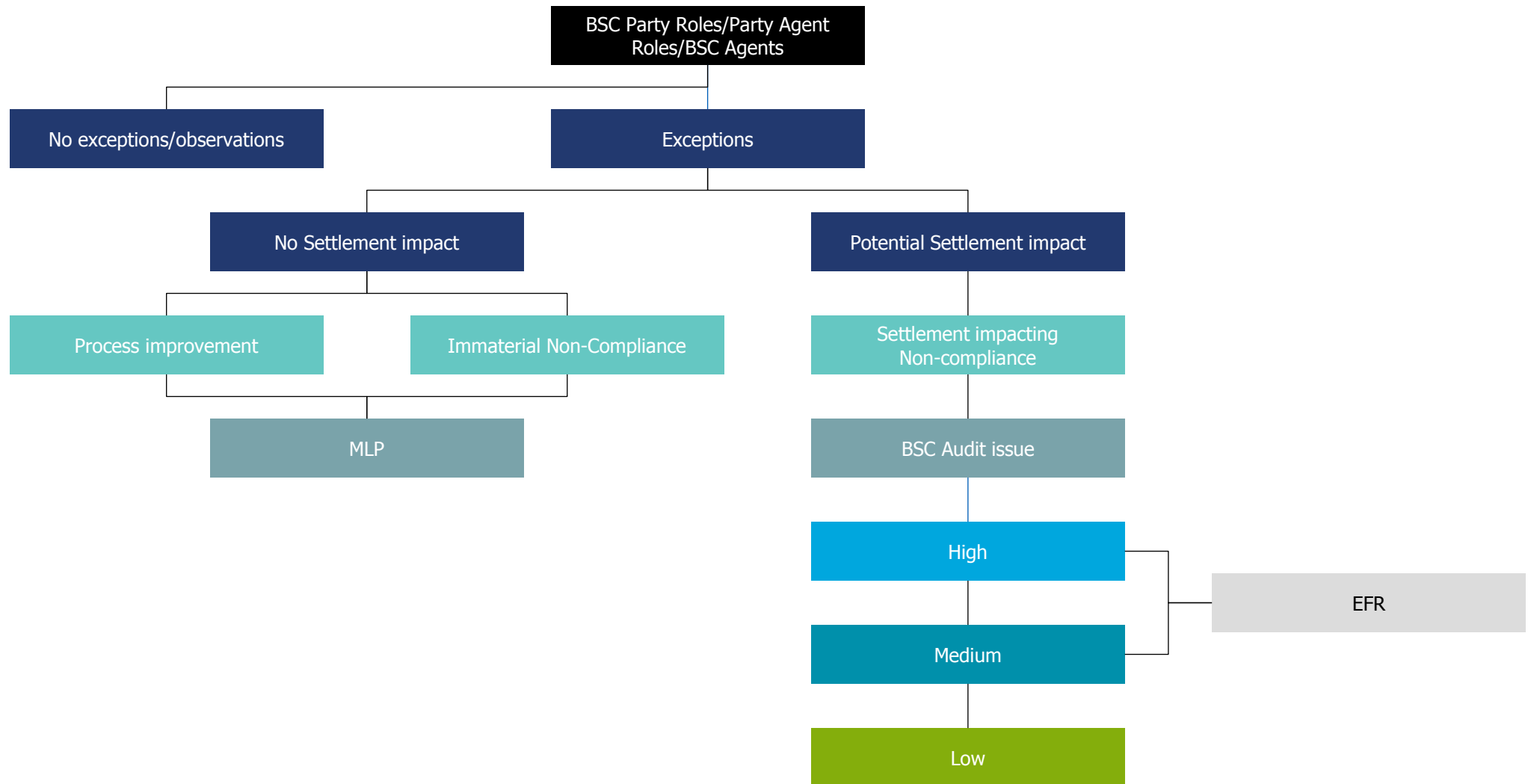
How will the impact of these factors be determined?

Each Settlement Impacting Non-Compliance issue will be rated as High, Medium or Low after gaining an understanding of the following:

- Nature of the issue
- Extent of potential impact of the issue on Settlement in MWh
- Improvement / deterioration (both quantitatively and qualitatively) since the previous BSC Audit
- Whether the number and/or nature of exceptions indicates the issue is pervasive or more widespread
- Impact of the issue on other Audited Entities or Trading Parties
- Extent to which a compliance issue might impact other issues (especially those which have a direct impact on Settlement)
- Existence of any mitigating factors (see below)
- Mitigating factors might include the following:
 - Other controls or procedures applied by the entity that reduce the potential impact of the error/non-compliance arising
 - Whether the issue has been resolved in the BSC Audit period (the importance of the issue remains the same but the required focus to be placed on it by ELEXON/PAB will be less)

The diagram in the following page summarises the rating methodology followed.

Appendix A: BSC Audit findings rating methodology (cont.)



Appendix B: Glossary of terms

Acronyms used in this document have the following meanings (as defined in the Balancing and Settlement Code), unless otherwise stated

Acronym	Definition	Acronym	Definition	Acronym	Definition
AA	Annualised Advance	ECVAA	Energy Contract Volume Aggregation Agent	NHH	Non Half Hourly
APM	Audit Planning Memorandum	EFR	Error and Failure Resolution	NHHDA	Non Half Hourly Data Aggregator
BMRA	Balancing Mechanism Reporting Agent	ELEXON	ELEXON Limited	NHHDC	Non Half Hourly Data Collector
BSC	Balancing and Settlement Code	FAA	Funds Administration Agent	NHHMOA	Non Half Hourly Meter Operator Agent
BSCCo	Balancing and Settlement Code Company	HHDA	Half Hourly Data Aggregator	PAB	Performance Assurance Board
BSC Audit	As defined on paragraph 5 on Section H on the BSC	HHDC	Half Hourly Data Collector	PAF	Performance Assurance Framework
BSC Auditor	As defined on paragraph 5 on Section H on the BSC	HHMOA	Half Hourly Meter Operator Agent	Panel	BSC Panel
CDCA	Central Data Collection Agent	ISAE 3000	International Standard on Assurance Engagements 3000	PAP	Performance Assurance Party
Code	Balancing and Settlement Code	LDSO	Local Distribution System Operator	SAA	Settlement Administration Agent
CoMC	Change of Measurement Class	MA	Meter Administrator	SMRS	Supplier Meter Registration Service
CRA	Central Registration Agent	MIDP	Market Index Data Provider	SVA	Supplier Volume Allocation
CVA	Central Volume Allocation	MLP	Management Letter Point	SVAA	Supplier Volume Allocation Agent
CVAMOA	Central Volume Allocation Meter Operator Agent	MOA	Meter Operator Agent	TAA	Technical Assurance Agent
DTN	Data Transfer Network	MPAN	Metering Point Administration Number	UMSO	Unmetered Supplies Operator
EAC	Estimated Annual Consumption	MTD	Meter Technical Details		

