



BSC Audit Approach 2019/20 SVA Market

Process Assessment – August 2019



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Executive summary

In 2018/19 the BSC Audit experienced a significant transformation in its approach. Central Systems and CVA MOA agents were covered under an ISAE 3000 reasonable assurance report and the SVA market moved outside the assurance conclusion into the Process Assessment reporting. This approach will continue in 2019/20 and ELEXON will drive the scope of the Process Assessment. The nature of the onsite work will remain broadly consistent with prior years' BSC audits but will target specific market roles and BSC Parties considered the highest risk to the accuracy of Settlements.

Our focus

Some of the critical emerging market developments and risks to Settlements that have been considered and built into the BSC SVA Audit approach for the 2019/20 BSC Audit year are:

- Commissioning: Our work in 2018/19 identified that 25% of NHHMOAs had Medium or High material non-compliances noted against them on the Commissioning process. Our 2019/20 scope carefully considers Commissioning.
- Off-the-shelf Performance Assurance Parties (PAPs): the trend of the off-the-shelf Suppliers and Party Agents with reliance on managed services, which creates over-dependency on single points of failure. We will continue providing specific findings on these parties.
- Supplier of Last Resort events: In 2018/19, an unprecedented number of SoLR events led to the development of additional work programmes and reporting. We will continue to observe the market for developing Risks and scope in SoLR assessments against BSC requirements.

We have aligned the scope of our work to the approved Risk Evaluation Register (RER).

Scope Changes and Transformation

Operationally, our principal focus is to continue improving customer experience and the efficiency of fieldwork. We held four improvement workshops over the summer to review feedback received from the parties and OSMs to evolve Process Assessment testing approach.

Specific changes are under development including DTN test accuracy and various procedure improvements and APM clarification. Proof of concept for remote Desktop Audits will be trialled this year to reduce the impact on parties and improve operational efficiency. The training programme is being revamped to improve the knowledge of individuals performing assessment procedures.

Root causes and MPAN data, which was included in issue reporting during last reporting period, received positive feedback and will continue. From 2019/20 EFR plans will not be automatically raised for every Medium or High rated issue. OSMs, EFR analysts, PAT and Risk owners will determine whether EFR plans should be raised on a case-by-case basis.



70

Performance Assurance Parties (PAPs) in scope



97%

MPAN coverage



940

Planned workpapers



30+

Experienced auditors involved



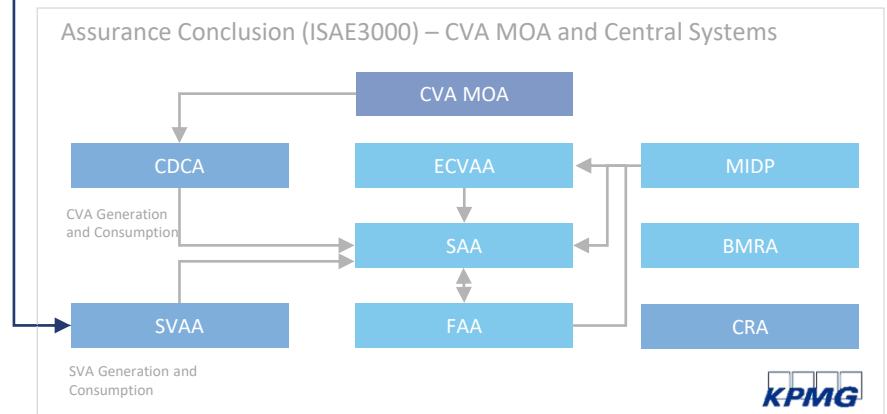
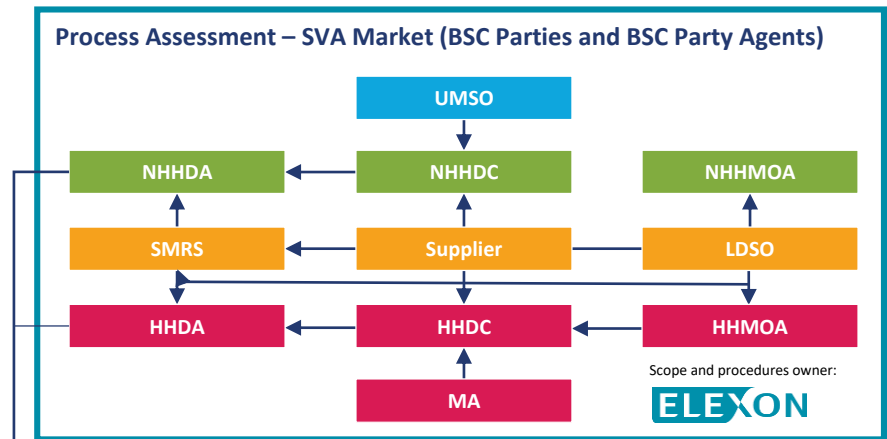
The BSC Audit Approach

The 2019/20 BSC Audit will be delivered in two distinct streams of work:

- Supplier and SVA Agents are within the scope of a Process Assessment engagement, forming part of ELEXON's Performance Assurance Framework (PAF).
 - ELEXON are responsible for the scope of the 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 The Performance Assurance Board (PAB) and The Panel.
- Central Systems and Central Volume Allocation Meter Operator Agent (CVA MOA) are within the scope of an ISAE 3000 Assurance Conclusion (the approach of which is covered in a separate Approach Document);

Key changes in activities performed in SVA Market:

- Increased risk based approach to scoping based on ELEXON Risk Evaluation Register and the eight Focus Risks;
- Enhanced Entity Selection including justification for inclusion;
- Outputs from other Performance Assurance Techniques (PATs) were considered in Entity Selection Process;
- Removal of automatic triggering of Error and Failure Resolution (EFR) process as a result of Medium and High rated BSC Audit issues;
- Further enhancement of existing DTN Tests increasing the accuracy of results;
- Proof of concept being trialed for remote Desktop Audits;
- Improvements to the Audit Planning Memorandum (APM) documents, giving further detailed information related to the site visits;
- Continued reduction of Data Requests to parties increasing the reliance on access to DTN rather than reliance on parties.
- Continued amendments and improvements to the Workpapers to align with the new Risks and focus on quality and accuracy of data within flows as well as timeliness.



Key BSC Audit findings in SVA Market 2018/19

BSC Audit 2018/19 findings summary

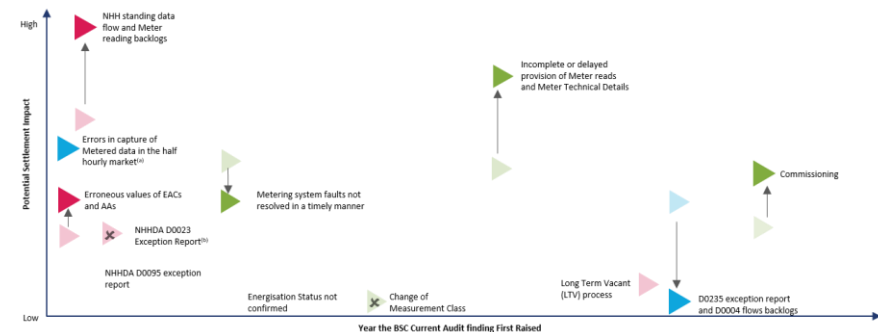
There has been a rise in the number of identified material findings in the SVA Market from 171 to 208 (a 22% increase), compared to last year. Within the material findings, the number of High and Medium issues has increased from 38 to 55. Our worst case calculation (see slide 7) concludes that there is a maximum of 1.06 TeraWatt Hour (TWh) potential Settlement Error for 2018/19 in the SVA market. This compares to 1.01 TWh for 2017/18.

Within the findings a number of themes have emerged:

- An improvement in significant legacy BSC Audit findings such as Change of Measurement Class (CoMC) as the number of CoMC events is decreasing and Error and Failure Resolution (EFR) plans are successfully helping parties to improve their Settlement performance.
- Continued industry change remains a challenge for Parties and a risk to Settlements. For example, Agents are not fully complying with new Commissioning requirements because of weaknesses in the design and operation of their processes and a lack of detailed understanding of the requirements (largely at LDSOs).
- Ongoing legacy findings such as backlogs of standing data, incomplete or delayed provision of Meter reads and Meter Technical Details and Faults remain a concern.

During the year there were nine SoLR events involving c.800,000 Metering points. Flexibility within the scope of our Process Assessment and with support from the Performance Assurance Board (PAB), new workpapers were developed to respond to these developing risks. Based on the testing performed, we noted no inconsistencies from the process defined in the BSC but observed a fluctuating Supplier Initial Settlement Run (SF) performance for Metering points affected by the process.

The chart below shows the individual categories of findings open for 2018/19, split by age, movement compared to the year before and potential Settlement impact. The previous year position of a finding is indicated by a partially transparent triangle. Arrows indicate the direction of change and the solid triangle indicates 2018/19 impact position (where there has been no material change in impact, the triangles remain in the same position as last year). Closed categories have been shown using a cross and appear partially transparent.



Key: ▶ Data quality issues in the Non Half Hourly Market ▶ Data quality issues in the Half Hourly Market ▶ Issues relating to Metering X Category not reported as significant

Note: (a) As reported by the Technical Assurance Agent (TAA), whose work was outside of the scope of 2018/19 Process Assessment.
(b) Although findings were noted regarding D0023s, it is not reported as significant for this period and has been classified under 'Other individually insignificant errors'.

Operational Approach: BSC Audit phases



1. Planning

Risk assessment and entity selection

The scope will be defined by ELEXON, including the entities where we will be performing testing and the composition of each work intensity.

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

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 APM will be sent to each in-scope entity outlining the timeframes, key contacts and data requested.

The APMs 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 effectively for the site visits.

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 being undertaken with ELEXON to reduce the number of data requests through the use of DTN and SMRS data.

3. Fieldwork and data modelling

Site visits for fieldwork will generally take place between November 2019 and March 2020. The timing of this work will be agreed with entities during the entity engagement phase.

Detailed Testing

Detailed testing involves inspection of a selection of transactions and records to verify that they have been created and/or processed in compliance with the BSC. Testing will establish completeness and accuracy of the data flow, or metering system level information in relation to BSC requirements. Following further guidance from PAB the quality of data processing as well as the timeliness of sending flows will be tested.

The testing work programmes continue to be reviewed and improved to focus on the current focus Risks. 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 a site visits, leading to a more efficient use of time whilst on site.

Operational Approach: BSC Audit phases cont.



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 APMs 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.

A clearance meeting will be held with entities to discuss and formally agree the accuracy of observations raised, however the ratings of these observations will not be discussed.

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 severity of the issue and the estimated potential impact on Settlement;
- Management Letter Points (MLPs) - findings which have no Settlement impact are categorised as follows:
 - 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.

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 also set out the Settlement impacting non-compliances noted from testing. Where applicable, findings will be reported at MPAN level and the root-cause of the issue will be included.

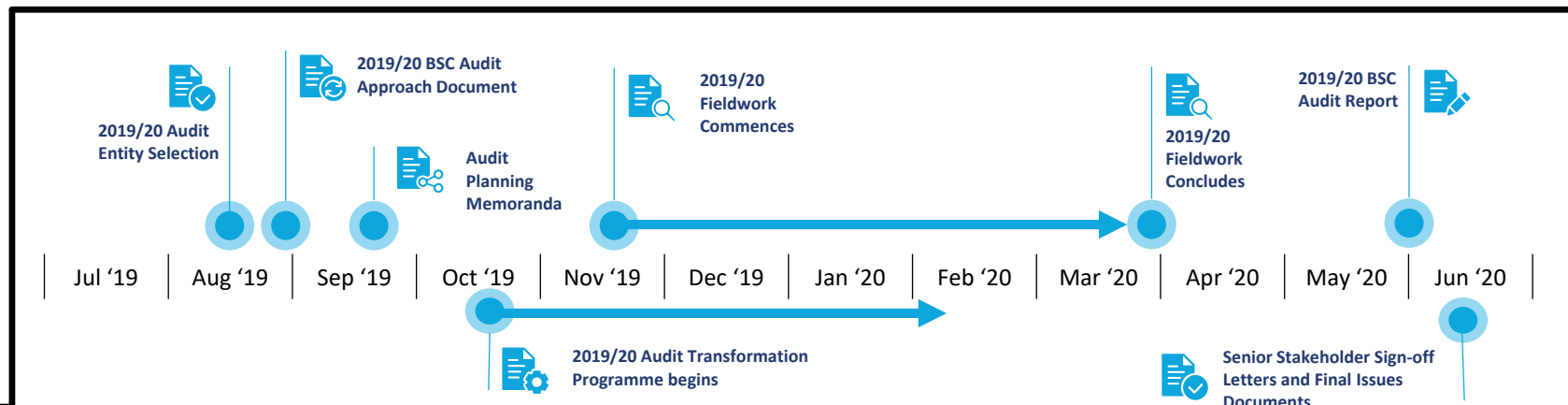
Operational Approach: BSC Audit phases cont.

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 BSC Audit period. For Process Assessment work performed over SVA Market, the consolidated findings will be reported by ELEXON in a report to PAB.

SVA Parties will be requested to submit Senior Stakeholder Sign-off Letters. These will endeavour to frame the issues and insights highlighted by the testing performed and indicate the potential financial impact of the issues. The purpose of the Senior Stakeholder Sign-off Letters is to drive further engagement in the improvement of BSC compliance within the parties.

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



BSC Audit Transformation

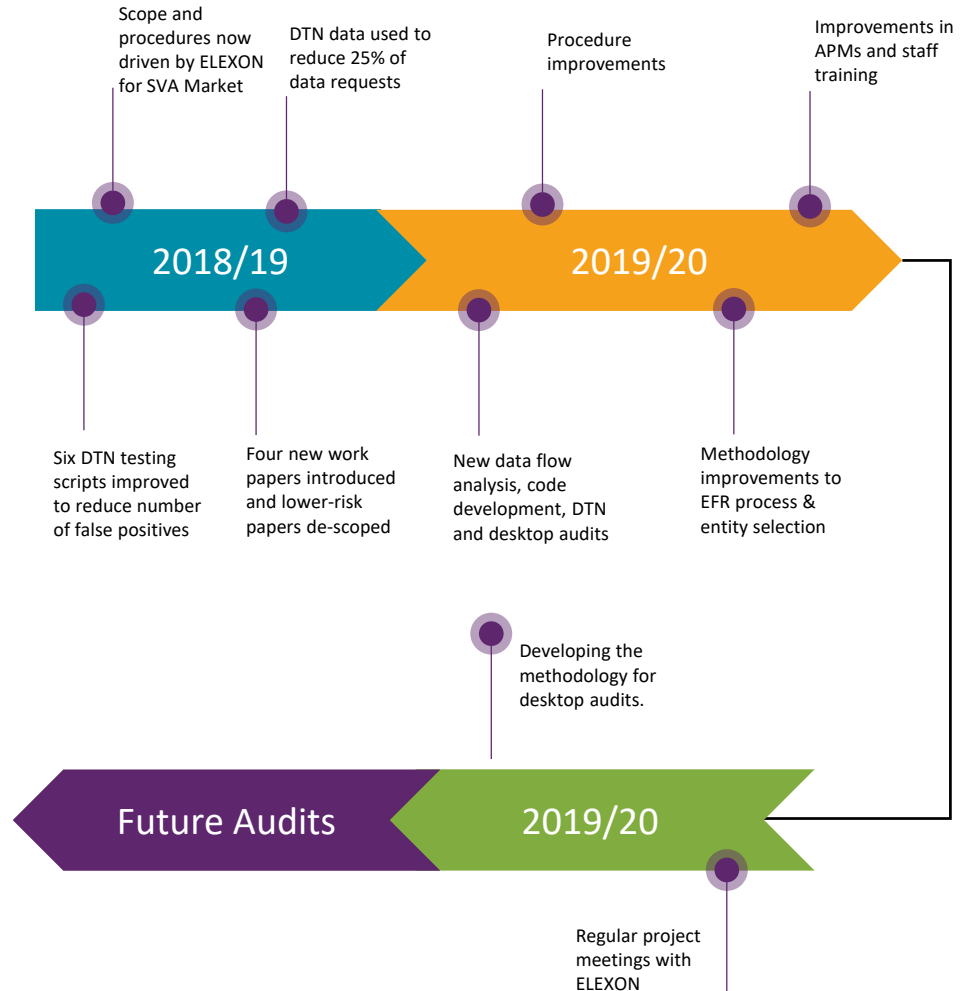
Prior Year Improvements:

- Data requests have been replaced with data from the DTN, Supplier Meter Registration Service (SMRS) and ELEXON's reports reducing time and resources spent by Audited Parties to collate data for the BSC Audit.
- Where possible, the samples selected were sent in advance of the site visit to allow parties to review them beforehand.
- APMs were improved to provide more details on processes which would be tested as part of the audit and the corresponding data requests.
- Issues lists now include the MPANs affected by the finding, the root cause and if the issue had been resolved within the audit period.
- The workpapers which the auditors use to test a process were reviewed by ELEXON and changes made to over a third of them. Additionally 3 new papers were developed across the Supplier and HHMOA roles.
- The 'Targeted' scope was introduced to cover specific processes that pose a greater risk in an Audited entity.

Improvements for 2019/20

- New data flow analysis. Improvements in code, new code development and preparation for desktop audits.
- Testing procedure improvements and the reduction of HHDA testing.
- Methodology Design including improvements to entity selection and changes in the EFR process.
- Communication improvements including improvements in APMs and re-training staff.
- Developing the methodology for desktop audits.

Audit Transformation Timeline:



Appendix A: BSC Audit findings rating methodology

Overview

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. 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 at 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 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.
- **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.

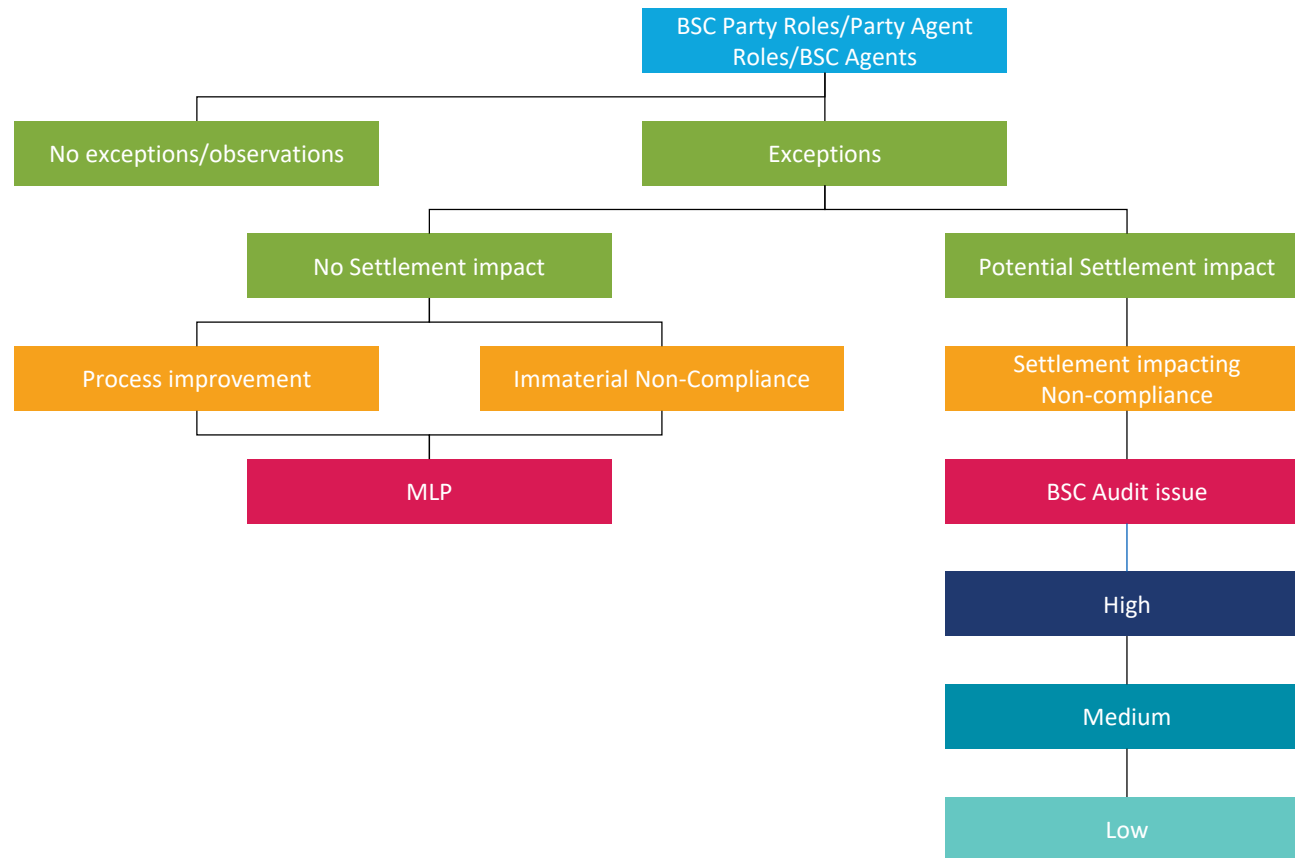
How will the impact of these factors be determined?

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 not
- 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), including 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 on the following page summarises the rating methodology followed.

Appendix A: BSC Audit findings rating methodology



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	EFR	Error and Failure Resolution	NHHMOA	Non Half Hourly Meter Operator Agent
APM	Audit Planning Memorandum	ELEXON	ELEXON Limited	PAB	Performance Assurance Board
Approach	BSC Auditor's Audit Approach for the year ended 31 March 2019	FAA	Funds Administration Agent	PAF	Performance Assurance Framework
Audit Year	Year ended 31 March 2019	HHDA	Half Hourly Data Aggregator	PAP	Performance Assurance Party
BM	Balancing Mechanism	HHDC	Half Hourly Data Collector	PAT	Performance Assurance Technique
BMRA	Balancing Mechanism Reporting Agent	HHMOA	Half Hourly Meter Operator Agent	Panel	BSC Panel
BMU	Balancing Mechanism Unit	LDSO	Local Distribution System Operator	SAA	Settlement Administration Agent
BSC	Balancing & Settlement Code	MA	Meter Administrator	SF	Initial Settlement Run
BSCP	Balancing & Settlement Code Procedure	MIDP	Market Index Data Provider	SSM	Statement of significant matters
CDCA	Central Data Collection Agent	MLP	Management Letter Point	Statement	Statement of significant matters
Code	Balancing & Settlement Code	MPAN	Metering Point Administration Number	SMRS	Supplier Meter Registration Service
CoMC	Change of Measurement Class	MPID	Market Participant Identifier	SVA	Supplier Volume Allocation
CRA	Central Registration Agent	MSID	Metering System Identifier	SVAA	Supplier Volume Allocation Agent
CVA	Central Volume Allocation	MTD	Meter Technical Details	TAA	Technical Assurance Agent
CVA MOA	Central Volume Allocation Meter Operator Agent	MOA	Meter Operator Agent	TDC	Trading Disputes Committee
DTN	Data Transfer Network	NHH	Non Half Hourly	TWh	TeraWatt Hour(s)
EAC	Estimated Annual Consumption	NHHDA	Non Half Hourly Data Aggregator	UMSO	UnMetered Supplies Operator
ECVAA	Energy Contract Volume Aggregation Agent	NHHDC	Non Half Hourly Data Collector		

ELEXON