The BSC Audit

BSC Audit Approach

SVA MARKET | 30 JUNE 2022

Contents

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Executive Summary

Significant findings

The Balancing and Settlement Code (BSC) Audit of 2021/22 was conducted with a backdrop of significant market turmoil. Although there is a decrease in the quantity of Settlement Impact findings with the Supplier Volume Allocation (SVA) market, this statistic needs to be considered within the broader context.

There were 144 material findings across the Performance Assurance Parties (PAPs) in scope for testing this year, compared to 168 last year. However, a further 43 material findings and 12 non-Settlement impacting (immaterial) findings were closed due to Suppliers exiting the market as a result of SoLR activity, and also due to a number of PAPs choosing to outsource some Agent roles (thus closing the findings related to their previous agent).

This report has therefore evolved to increase the focus on the impact to Settlement Risks of the BSC Audit findings, as set out in Elexon's Risk Evaluation Register (RER).

Our focus

BSC Audit continues to closely align itself with other Performance Assurance Techniques (PATs), and the 2022/23 BSC Audit will focus on the two Key SVA Focus Areas and risks (see Appendix 3) as outlined in the Risk Evaluation Register (RER) and the Risk Operation Plan (ROP) and further detailed in the BSC Audit Scope.

Key Changes to Approach

- Earlier Planning and notification of audits to allow Parties to plan for the audits accordingly.
- Remote Audits will be the default method for all audits, however site visits can be conducted, if permissible and either requested by the PAP or considered to be advantageous by Elexon and/or the BSC Auditor.
- Enquiry questions will be sent ahead of audits (virtual or physical) to increase efficiency and effectiveness of time spent with Parties and allow the Parties to focus more on Business as Usual activities
- Refinement of workpapers to align with changes to the 2022/23 BSC Audit Scope.
- Continued refinements and enhancements to Data Transfer Network (DTN) tests.
- Supplier Volume Allocation Meter Operator Agent (SVA MOA) are no longer being tested as they are no longer owned by Elexon and thus not in scope for the 2022/23 audit.

*99% coverage is measured as the percentage of MPANs passing through the processes and procedures reviewed at market participants. Not all of these MPANs will have been individually reviewing due to the sampling approach taken to test some processes.

2022/23 BSC Audit Year stats

70+ Performance Assurance Parties (PAPs) in scope

99% MPAN coverage

800+ Planned workpapers

25+ Experienced auditors involved

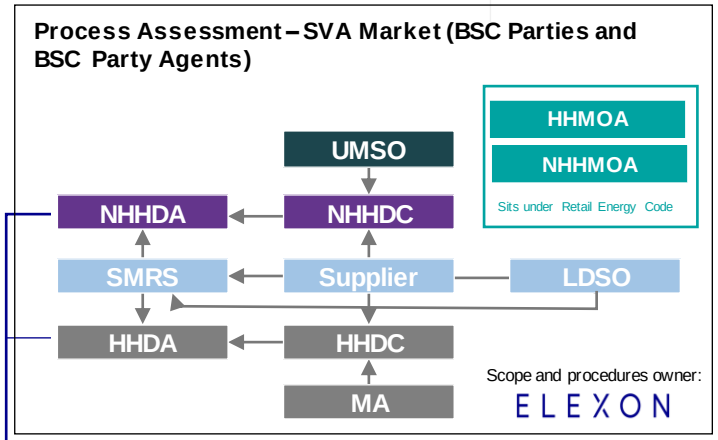
The BSC Audit approach

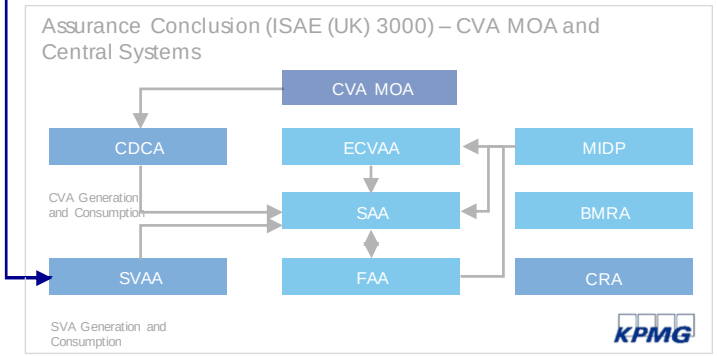
The BSC Audit will be delivered in two distinct streams of work:

- 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 audit 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 (UK) 3000 Assurance Conclusion (the approach of which is covered in a separate Approach Document);

Key differences in activities performed in SVA Market compared to CVA / Central Systems Agents:

- Increased risk based approach to scoping based on Elexon Risk Evaluation Register and the two focus risks / events;
- 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;
- Improvements to the Audit Planning Memorandum (APM) documents, giving further detailed information related to the audits;
- 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.





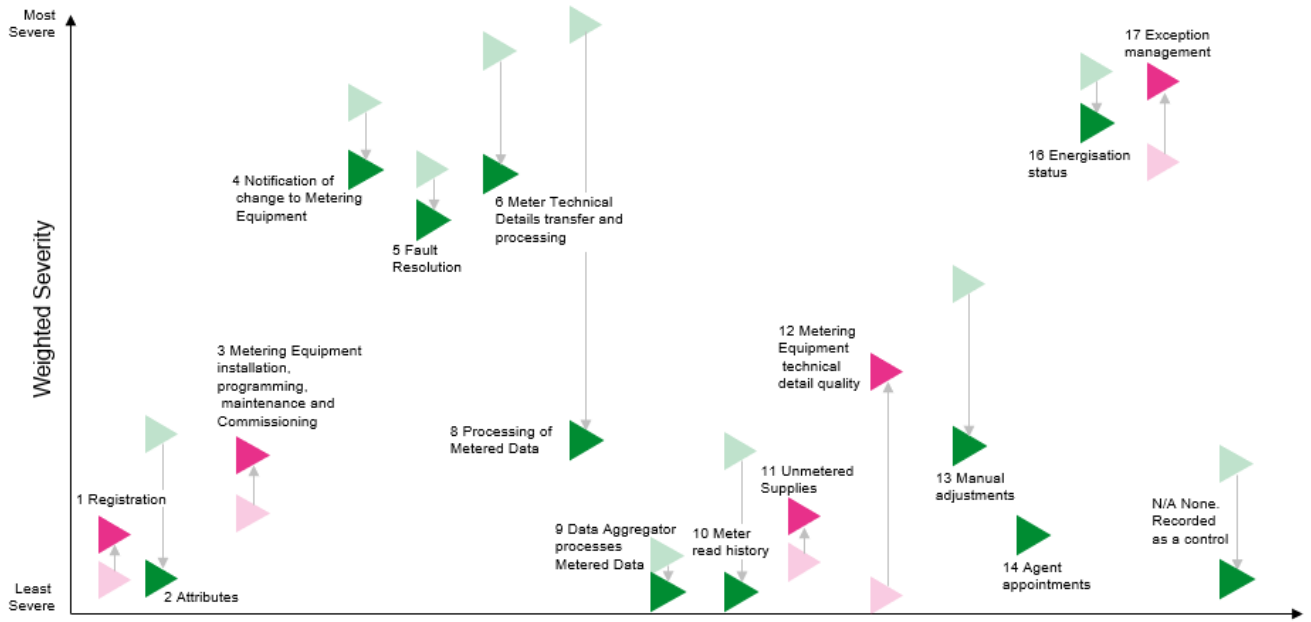
Summary of BSC Audit Findings in 2021/22

BSC Audit 2021/22 findings summary

- There has been a decrease in the number of identified material findings in the SVA Market from 168 to 144. This decrease has primarily come from findings being closed due to suppliers ceasing to trade, outsourcing of Agent activities or Market Participant Identity (MPID) migrations. It should be noted that while only 144 findings were noted, 43 findings were closed from the previous year as a result of SoLR. This skews the figure slightly and should be noted.

Within the findings a number of themes have emerged:

- 40% of all material findings were raised at just five PAPs (51% last year). What this statistic doesn't take into account is how many processes were audited at these PAPs. This year, there was an introduction of the concept of a 'Hit Rate' (i.e. the number of findings raised compared to the number of processes audited) to provide an alternative lens on PAP performance. This highlights three additional PAPs that have a higher than 50% hit rate, where material findings are raised on more than half of the processes audited.
- 93% of high and medium findings has improved from prior year, with the figure decreasing to 53% when we exclude the findings that have been closed due to Agents no longer operating in the market (1 high finding and 15 medium findings were closed as a result).
- This year the number of material findings within the SVA MOA role has slightly increased (from 65 last year to 70). 70% of these findings relate to three specific risks; Energisation status, Meter Technical Details transfer and processing and Notification of change to Metering Equipment). This increase is also due to agents exiting the market and MPID migration activities. Although there has been an increase overall, only 13 account for high and medium findings, the same figure as 2020/21.



The chart above shows the movement and weighted severity* (compared to prior year) of findings categorised by Settlement Risks. The previous year's position of a finding is indicated by a partially transparent triangle. Arrows indicate the direction of change and the solid triangle dictates the current year impact position (where there has been no material change in weighted severity, the triangles remain in the same position as last year).

*Weighted severity is calculated by multiplying the number of open findings by the finding rating.

Operational approach

1. Planning → 2. Entity engagement → 3. Fieldwork and data modelling → 4. Clearance meetings and reporting

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 audits.
Where possible, DTN Data will be used to reduce the volume of data that parties need to provide.
Pre-site enquiry questionnaires will be sent to PAPs after the initial planning meeting to make the time with PAPs during the audit more valuable.

3. Fieldwork and data modelling

Audits will generally take place between October 2022 and March 2023 and will be primarily conducted remotely. The timing of this work will be agreed with entities during the entity engagement phase. We will also utilise remote auditing techniques and structured ordering of Party Audits to minimise the impact on Parties while retaining the level of assurance expected from the BSC Audit.

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. The BSC Audit will continue to focus on the quality of data processing as well as the timeliness of sending flows.

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 continue to be 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 audit dates, leading to a more efficient use of time during the audit itself.

Operational approach (continued)

3. Fieldwork and data modelling (continued)

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. This will involve reviewing all issues and their ratings to ensure they are applied consistently across all audited agents.

4. Clearance Meetings and Reporting

Observations

At the conclusion of each audit, 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 categorised as follows:

- Settlement impacting non-compliance
- Immaterial non-compliance
- Process improvement

See Appendix 1 for how these categories are defined.

Reporting

Following clearance meetings, immaterial non-compliance and process improvement observations will be reported to the audited entity as Management Letter Points' (MLPs) within an overall audit issues document that will also set out the Settlement impacting non-compliances noted from testing.

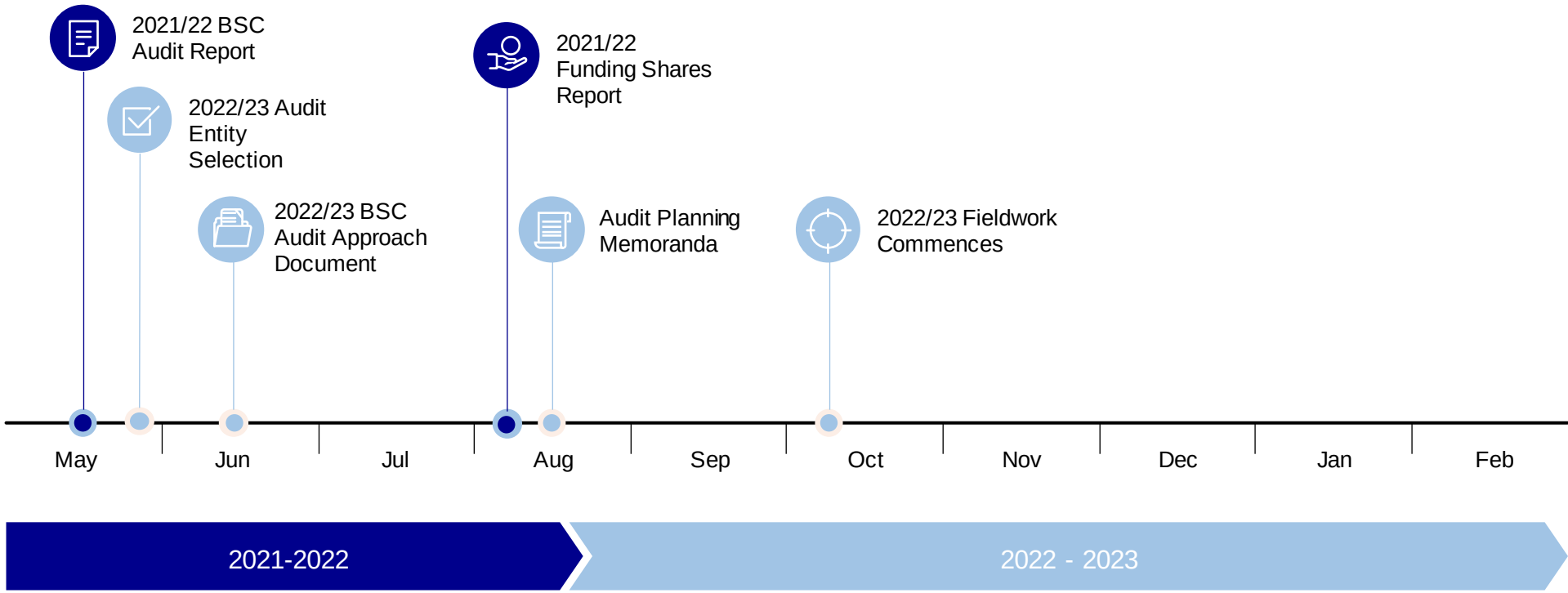
Operational approach (continued)

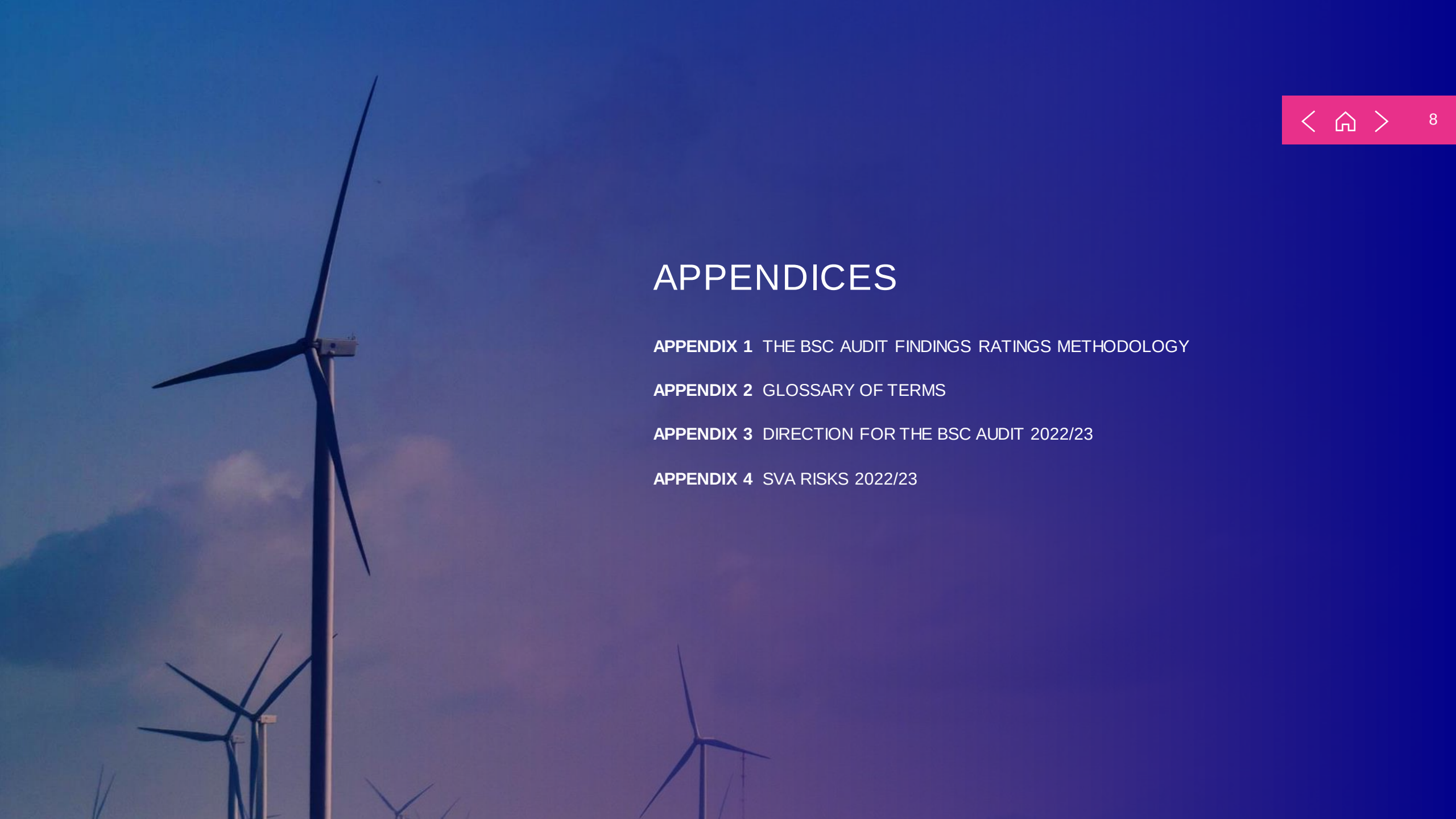
All Settlement Impacting Non-compliances will be reported.

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 sign and return 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 on the right.





APPENDICES

Appendix 1 - The BSC Audit Findings Ratings 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 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 MLPs.

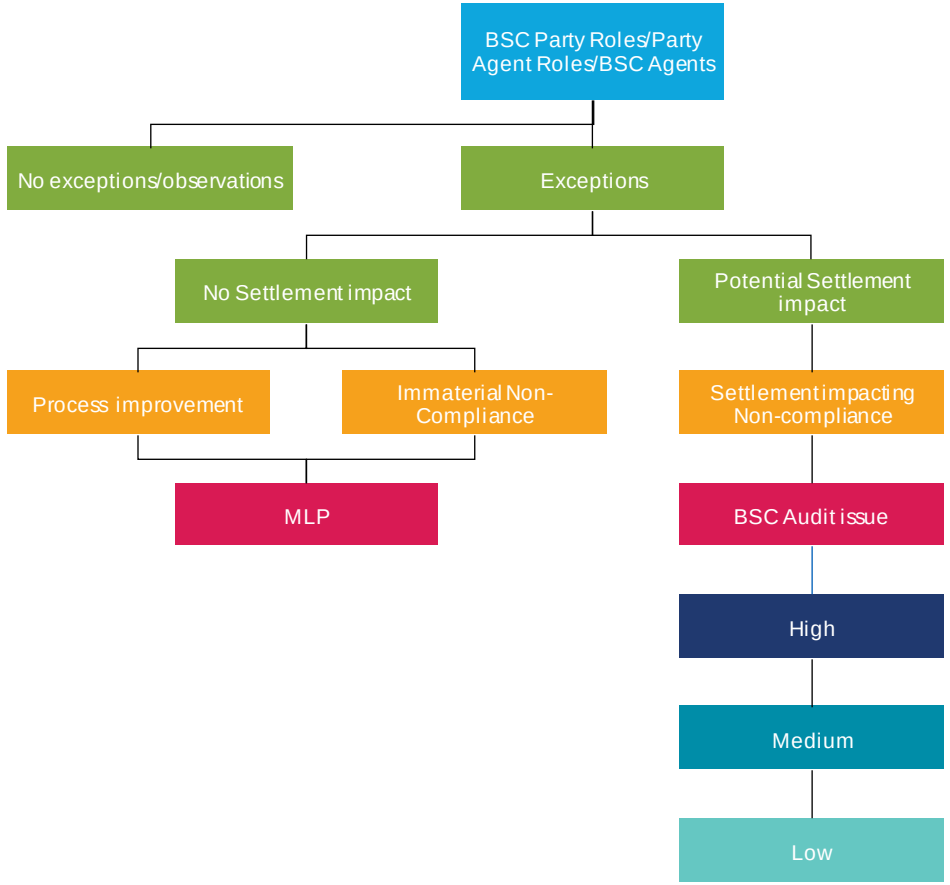
Appendix 1 - The BSC Audit findings Ratings Methodology

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 right of this page summarises the rating methodology followed.



Appendix 2 - 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	**Elexon**	Elexon Limited	**PAF**	Performance Assurance Framework
APM	Audit Planning Memorandum	**FAA**	Funds Administration Agent	**PAP**	Performance Assurance Party
Approach	BSC Auditor's Audit Approach for the year ended 31 March 2023	**HHDA**	Half Hourly Data Aggregator	**PAT**	Performance Assurance Technique
Audit Year	Year ended 31 March 2023	**HHDC**	Half Hourly Data Collector	**Panel**	BSC Panel
BM	Balancing Mechanism	**HHMOA**	Half Hourly Meter Operator Agent	**RER**	Risk Evaluation Register
BMRA	Balancing Mechanism Reporting Agent	**LDSO**	Local Distribution System Operator	**ROP**	Risk Operation Plan
BMU	Balancing Mechanism Unit	**MA**	Meter Administrator	**SAA**	Settlement Administration Agent
BSC	Balancing & Settlement Code	**MIDP**	Market Index Data Provider	**SF**	Initial Settlement Run
BSCP	Balancing & Settlement Code Procedure	**MLP**	Management Letter Point	**SoLR**	Supplier of Last Resort
CDCA	Central Data Collection Agent	**MPAN**	Metering Point Administration Number	**SSM**	Statement of significant matters
Code	Balancing & Settlement Code	**MPID**	Market Participant Identifier	**Statement**	Statement of significant matters
CoMC	Change of Measurement Class	**MSID**	Metering System Identifier	**SMRS**	Supplier Meter Registration Service
CRA	Central Registration Agent	**MTD**	Meter Technical Details	**SVA**	Supplier Volume Allocation
CVA	Central Volume Allocation	**MOA**	Meter Operator Agent	**SVAA**	Supplier Volume Allocation Agent
CVA MOA	Central Volume Allocation Meter Operator Agent	**NHH**	Non Half Hourly	**TAA**	Technical Assurance Agent
DTN	Data Transfer Network	**NHHDA**	Non Half Hourly Data Aggregator	**TDC**	Trading Disputes Committee
EAC	Estimated Annual Consumption	**NHHDC**	Non Half Hourly Data Collector	**TWh**	TeraWatt Hour(s)
ECVAA	Energy Contract Volume Aggregation Agent	**NHHMOA**	Non Half Hourly Meter Operator Agent	**UMSO**	UnMetered Supplies Operator
EFR	Error and Failure Resolution	**PAB**	Performance Assurance Board		

Appendix 3 – Direction for the BSC Audit 2022/23

Risk Operating Plan (ROP) alignment and COVID-19 Pandemic recovery

The energy market continues to react and change in light of the change in demand in the electricity wholesale market. Elexon and the Performance Assurance Board (PAB) wish to ensure that assurance activities strike the right balance of effective control and monitoring of performance within the market, whilst recognising and responding to the pressures and challenges in the current environment.
The Risk Operating Plan (ROP) for the Performance Assurance Operating Period (PAOP) 2022/23 outlines two focused risk areas:

ROP Focus	Description	Recommended action	Associated Risks
Post-COVID-19 pandemic market recovery	Although restrictions in the UK have been loosened, it is anticipated that the operations of BSC parties and agents will still be impacted due to access issues, availability of staff, backlogs and changed in consumer behaviour.	Ensure that parties are able to monitor and enhance their performance. Furthermore, liaise with the Retail Energy Code as they will lead MOA assurance.	03, 05, 07
Processes associated with SoLR events	Due to the rise in price of wholesale electricity there has been an increase in Supplier defaults and thus an increase in SoLR events. This increase may cause an increase in error. 86% of market participants (who participated in the Assurance Survey, predicted they will have an increase in SoLR events, which will in turn impact their operations	Elexon and the BSC Auditor will continue to assess the scope of the transition and adapt where appropriate, however no specific action will be undertaken to change the Audit for the current period.	04, 05, 08, 10, 14, 17

Appendix 4 – SVA risks 2022/23

Risk Reference	Risk Description
001	SVA Metering Point is registered incorrectly or not at all, such that metered data is not collected or aggregated
002	SVA Metering System attributes held in the Supplier Meter Registration Service (SMRS) or by any party in the Supplier Hub areincorrect
003	SVA Metering Equipment is installed, programmed or maintained incorrectly including where Commissioning is performed incorrectly or not at all
004	Changes to SVA Metering Equipment are not notified, such that all members of the Supplier Hub do not use the current Meter Technical Details
005	A fault with SVA Metering Equipment is not resolved, such that metered data is recorded incorrectly or cannot be retrieved
006	On a change of agent, Meter Technical Details are not transferred or processed correctly or at all, such that parties do notuse the latest Meter Technical Details
007	SVA Metered data is not retrieved, such that the proportion of estimated data being used in Settlement contributes to performance standards not being met
008	SVA metered data is not processed or transferred correctly, or at all
009	The Data Aggregator does not process metered data correctly or at all, including transfer to SVAA, such that the energy volumes required for Settlement are incorrect or missing
010	On change of Data Collector, meter read history is incorrect or not transferred such that sufficient history is not availablefor validating and estimating energy volumes
011	Unmetered Supplies volumes are calculated incorrectly or not at all
012	SVA Metering System technical details are created incorrectly
013	Manual adjustments to Metered Data are not completed correctly, or at all
014	Agents are not appointed or de-appointed correctly, such that SMRS is not complete or up to date, members of the Supplier Hub do not hold the correct MPID of other Hub members or the appropriate agents are not appointed
015	SVA reference data is not created or transferred correctly, or at all
016	The energisation status held in SMRS or by any party in the Supplier Hub does not match the physical energisation status of the SVA Metering System
017	Exception reports are not sufficiently managed, such that material exceptions are not addressed at all or in a timely manner
018	Revenue protection processes are not managed sufficiently, such that unrecorded energy volumes are excluded from Settlement
025	Balancing Services provided by Virtual Lead Parties allow error to enter Settlement, such that the energy volumes required for Settlement are incorrect or missing