

ELEXON

BSC AUDIT SCOPE 2021/22

June 2021

Public

Contents

Contents	1
Direction for the Balancing and Settlement Code (BSC) Audit	2
Risk Operating Plan (ROP) alignment and COVID-19 Pandemic recovery	2
Additional Considerations	3
Materiality Threshold	3
Reporting	3
Scope of the BSC Audit	4
Supplier Volume Allocation (SVA) Process Assessment – Settlement Risks and Testing	4
SVA Process Assessment – Industry roles in Scope	10
CVA Assurance Opinion - BSC Systems and BSC Agents	11
Additional Considerations	14
Areas Out of Scope	14

Direction for the Balancing and Settlement Code (BSC) Audit

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

The energy market continues to react and change in light of lockdowns and other restrictions across the country. 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 unprecedented challenges in the current environment.

The Risk Operating Plan (ROP) for the Performance Assurance Operating Period (PAOP) 2021/22 outlines four focused risk areas:

ROP Focus	BSC Audit Considerations	Recommended action	Associated Risks
Supporting the recovery of the market, following the COVID-19 pandemic	Retrieval rates from properties are likely to remain impacted by COVID-19 lockdowns and other restrictions for some time, the focus should be on ensuring that all processes that impact on the quality of retrieved data are as effective and efficient as possible, to maximise the quality of the data received.	Processes that were put under unique stress during COVID-19 lockdown will continue to be investigated, such as the Disaster Recovery process, effectiveness of remote working and implementation of changes to policies will be reviewed. Work Papers will be updated to include controls based questions where not currently present.	05, 06, 07, 08, 10, 12
Provide improved Performance Assurance within the Central Volume Allocation (CVA) Market	To improve the overall availability and visibility of Performance Assurance data within the CVA Market	The Audit Report will provide additional information and focus on CVA Meter Operation Agent (MOAs) and Central Systems Risks	19, 20, 21, 22, 23
Understand and mitigate, where possible, the impact of any potential transition of Risk to the Retail Energy Code (REC)	The REC, which plans to give effect to Retail Code Consolidation, is expected to take effect on 1 September 2021 and is likely to significantly impact the vires Elexon and the PAB have for SVA MOA BSC processes which affect the risks in the Risk Evaluation Register (RER).	Elexon and the BSC Auditor will be progressing with HHMOA and NHHMOA audits for the 2021/22 audit period to: - Gain an understanding of the current issues within that segment of the Market; - Assess the outcome of Error and Failure Resolution plans put in place following the 2020/2021 audit; and - Provide a clear view of Meter Operator performance as part of our handover to the Retail Energy Code.	All SVA Risks
Address actions arising from Market Issues identified within the BSC Audit	A number of Market Issues were identified in the BSC Audit. To address these, along with other areas of feedback received from BSC Parties during the BSC Audit, The ROP includes the Market Issues and accompanying actions.	The Audit will continue to gather information on the existing Market Issues and potential new ones.	All Risks

ELEXON has selected these risks based on:

- The characteristics and assessment of the risk, in which risks which had large impacts and/or volatilities were prioritised;
- The steer obtained from reviewing the PAB Strategy and feedback from industry; and
- Review of the effectiveness of previous Performance Assurance Techniques applied over the years

In addition to the areas of testing identified by the ROP, the frequency and triggers for certain BSC Audit testing will remain as follows:

- Testing of standard systems will only occur where a change to the system has been made; and
- Processes will only be tested where there has been at least one instance of this process being operated within the audit period

Sections that are greyed out indicate that these areas will not be covered in the 2021/22 except at Parties that have material issues raised against those areas.

Additional Considerations

To ensure the quality and accuracy of the data in DTN flows, additional questions have been added to all Performance Assurance Party testing, focusing particularly on controls.

To ensure the smooth running of the Audit, Elexon and the BSC Auditor will continue to follow Government Guidelines for Covid-19 lockdown in regards to remote Auditing.

Materiality Threshold

The BSC Auditor will 'Qualify' its audit Opinion for the ISAE3000 CVA MOA and Central Systems Audit if it cannot provide reasonable assurance that the total level of error in Settlement is less than the materiality threshold.

The materiality threshold for the BSC Audit for 2021/22 will be 1.1TWh, which represents approximately 0.5% of the total annual electricity supplied across Great Britain in 2020.

Reporting

Unless otherwise agreed with the BSC Panel, the BSC Audit Report for 2021/22 will be presented to the Panel in June 2022.

Scope of the BSC Audit

This section details the scope of the BSC Audit and terms of reference for the BSC Auditor for 1 April 2021 to 31 March 2022.

The scope of the BSC Audit for 2021/22 will include the functions and processes described below, split into the SVA Process Assessment, and CVA ISAE3000 Opinion Audit.

Supplier Volume Allocation (SVA) Process Assessment – Settlement Risks and Testing

1. Risk 001 – SVA Registration

- 1.1 The risk that a Metering Point is registered incorrectly or not at all, such that metered data is not collected or aggregated resulting in erroneous, estimated or missing data in Settlement
- 1.2 BSC Audit testing for Settlement Risk 001 includes:

Role	SVA Work Papers
Supplier Meter Registration Agent (SMRA)	Processing of standing data changes received from Suppliers and Licenced Distribution System Operator (LDSO) Validity of standing data Processing of Objections and Objection Removal (on Change of Supply) Processing of retrospective amendments Resolution of D0023 ¹ rejections
Supplier	Processes and controls operated by a Supplier to ensure key processes are operating Updates of Registration Details

2. Risk 002 – SVA Attributes

- 2.1 The risk that SVA Metering System attributes held in the Supplier Meter Registration Service (SMRS) or by any party in the Supplier Hub are incorrect resulting in erroneous or estimated data in Settlement.
- 2.2 BSC Audit testing for Settlement Risk 002 includes:

Role	SVA Work Papers
SMRA	Processing of standing data changes received from Suppliers and LDSO Validity of standing data Processing of SMRS Refresh Requests Processing of retrospective amendments Resolution of D0023 rejections
Supplier	Processes and controls operated by a Supplier to ensure key processes are operating Processing of data flows - backlogs

3. Risk 003 – SVA Metering Equipment installation, programming, maintenance and commissioning

- 3.1 The risk that SVA Metering Equipment is installed, programmed or maintained incorrectly where commissioning is performed incorrectly or not at all resulting in erroneous or estimated data in Settlement
- 3.2 BSC Audit testing for Settlement Risk 003 includes:

Role	SVA Work Papers
Half Hourly Meter Operator Agent (HHMOA)	Processes around Commissioning
LDSO	Commissioning

¹ D0023 – Failed Instructions

(<https://dtc.mrasco.com/DataFlow.aspx?FlowCounter=0023&FlowVers=1&searchMockFlows=False>)

BSC Audit Scope 2021/22

4. Risk 004 - SVA Notification of change to Metering Equipment

4.1 The risk that Changes to Metering Equipment are not notified, such that all members of the Supplier Hub do not use the correct Meter Technical Details resulting in erroneous or estimated data in Settlement

4.2 BSC Audit testing for Settlement Risk 004 includes:

Role	SVA Work Papers
Half Hourly Data Collector (HHDC)	Processing of standing data changes received from Supplier and MOA
HHMOA	Processing of reconfiguration, replacement or removal of metering equipment Processing of changes in Measurement Class between Non Half Hourly (NHH) and Half Hourly (HH) Processing of changes in Measurement Class between HH and NHH Identification and notification of complex sites Backlogs
LDSO	Completeness of provision of site technical details
Non Half Hourly Data Collector (NHHDC)	Processing of standing data changes received from Suppliers and MOA
Non Half Hourly Meter Operator Agent (NHHMOA)	Processing of reconfiguration, replacement or removal of metering equipment Processing of changes in Measurement Class between NHH and HH Processing of changes in Measurement Class between HH and NHH Backlogs

5. Risk 005 – SVA Fault resolution

5.1 The risk that a fault with SVA Metering Equipment is not resolved, such that metered data is recorded incorrectly or cannot be retrieved resulting in erroneous or estimated data in Settlement.

5.2 BSC Audit testing for Settlement Risk 005 includes:

Role	SVA Work Papers
HHDC	Reporting of consumption on de-energised Meter (D0001 ²) to Supplier and MOA Resolution of Inconsistencies
HHMOA	Processing of requests to investigate inconsistencies (faults)
NHHMOA	Processing of requests to investigate inconsistencies (faults)
Supplier	Fault Resolution Processes
NHHDC	Correct incorrect register Mapping Resolution of D0023 rejections Resolution of D0095 rejections

6. Risk 006 – SVA Meter Technical Details transfer and processing

6.1 The risk that on a Change of Agent, Meter Technical Details are not transferred or processed correctly or at all, such that parties do not use the latest Meter Technical Details resulting in erroneous or estimated data in Settlement.

6.2 BSC Audit testing for Settlement Risk 006 includes:

Role	SVA Work Papers
HHDC	Processing of standing data changes received from Supplier and MOA
HHMOA	Processing of changes of Meter Operator Agent / changes of Supplier Processing of changes of Data Collector Agent Processing of registration transfers between Central Meter Registration Service (CMRS) and SMRS Processing of registration transfers between SMRS and CMRS Identification and notification of complex sites Backlogs

² D0001 - Request Metering System Investigation

(<https://dtc.mrasco.com/DataFlow.aspx?FlowCounter=0001&FlowVers=1&searchMockFlows=False>)

BSC Audit Scope 2021/22

NHHDC	Processing of standing data changes received from Suppliers and MOA Backlogs of standing data flows and meter readings
NHHMOA	Processing of changes of Meter Operator Agent / changes of Supplier Processing of changes of Data Collector Agent Backlogs

7. Risk 007 – SVA Retrieval of Metered Data

- 7.1 The risk that SVA Metered Data is not retrieved, such that the proportion of estimated data being used in Settlement contributes to performance standards not being met resulting in estimated data in Settlement
- 7.2 Elexon has determined that the following activities and Performance Assurance Techniques adequately cover Risk 007:
- PARMS serial standard SP08 Supplier Charges
 - Monthly Risk Report monitoring NHH Supplier 97% performance standard monitoring and HH Supplier 99% performance standard monitoring
 - Error and Failure Resolution corrective activities
 - OSM weekly monitoring and communications

8. Risk 008 – SVA Processing of Metered Data

- 8.1 The risk that SVA Metered Data is not processed or transferred correctly, or at all resulting in erroneous or estimated data in Settlement.
- 8.2 BSC Audit testing for Settlement Risk 008 includes:

Role	SVA Work Papers
HHDC	Processing of standing data changes received from Supplier and MOA Processing of HH consumption Validity of consumption Data estimation Backlogs of Incoming/Outgoing flows Resolution of Inconsistencies Processing of Metering System Related Details (D0170 ³) on request after Change of Supplier/Agent event
NHHDC	Processing of standing data changes received from Suppliers and MOA Validity of standing data Processing of meter readings collected via hand held unit Processing of meter readings collected via manual meter sheet or other paper record Processing of meter readings collected via Supplier (D0010 ⁴) or other electronic method Validity of meter readings Override of reads which have failed validation Validity of meter reading withdrawals Processing of meter reading withdrawals Processing of Deemed Meter Advances (DMA) on Change of Supplier Validity of DMA Processing of DMA after Final Reconciliation (RF) where have an Estimate Annual Consumption (EAC) with no Annual advance(AA) at RF and a meter reading has been received post RF Re-performance of DMA calculation performed by EAC/AA calculator Requests for calculation of EAC/AA Adequacy of controls over large EAC/AA

³ D0170 – Request for Metering System related details

(<https://dtc.mrasco.com/DataFlow.aspx?FlowCounter=0170&FlowVers=1&searchMockFlows=False>)

⁴ D0010 – Meter Readings

(<https://dtc.mrasco.com/DataFlow.aspx?FlowCounter=0010&FlowVers=2&searchMockFlows=False>)

BSC Audit Scope 2021/22

	Re-performance of calculation performed by EAC/AA calculator Backlogs of standing data flows and meter readings Resolution of D0023 ⁵ rejections Resolution of D0095 ⁶ exceptions Processing of Metering System Related Details (D0010 and D0152 ⁷) on request after Change of Supplier/Agent event
Supplier	[NHH only] Processes surrounding the identification and correction of potentially erroneous EACAA
NHHMOA	Zero Reads Process

9. Risk 009 – SVA Data Aggregator Processes Metered Data

9.1 The risk that 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 resulting in erroneous, missing or estimated data in Settlement

9.2 BSC Audit testing for Settlement Risk 009 includes:

Role	SVA Work Papers
Hourly Data Aggregator (HHDA)	Processing of Market Domain Data (MDD) Validity of MDD Processing of standing data changes received from SMRS Validity of standing data Obtaining and processing of Line Loss Factors (LLF) from ELEXON website Processing and validation of Balancing Mechanism Unit (BMU) data received from Supplier Validity of HH consumption data Re-performance of Aggregation Sending of Supplier Purchase Matrix (SPMs) to Supplier Volume Allocation Agent (SVAA) Data/Flow processing backlogs at DA Reporting of anomalies to HHDC Agents and Suppliers (D0235 ⁸)
Non Half Hourly Data Aggregator (NHHDA)	Processing and validity of MDD Processing of standing data changes and consumption received from SMRS and NHHDC Validity of standing data and consumption Re-performance of Aggregation Sending of SPMs to SVAA Notification of MPANs excluded from the RF Data/Flow processing backlogs at DA Level of outstanding D0023 flows reported by NHHDA

10. Risk 010 – SVA Meter read history

10.1 The risk that on Change of Supplier or Agent, Meter read history is incorrect or not transferred such that sufficient history is not available for validating and estimating energy volumes resulting in erroneous or estimated data in Settlement

10.2 BSC Audit testing for Settlement Risk 010 includes:

Role	SVA Work Papers
HHDC	Processing of Metering System Related Details (D0170) on request after Change of Supplier/Agent event
NHHDC	Processing of Metering System Related Details (D0010 and D0152) on request after Change of Supplier/Agent event

⁵ D0023 – Failed Instructions

(<https://dtc.mrasco.com/DataFlow.aspx?FlowCounter=0023&FlowVers=1&searchMockFlows=False>)

⁶ D0095 – Non Half Hourly Data Aggregation Exception Report

(<https://dtc.mrasco.com/DataFlow.aspx?FlowCounter=0095&FlowVers=1&searchMockFlows=False>)

⁷ D0152 - Metering System EAC/AA Historical Data

(<https://dtc.mrasco.com/DataFlow.aspx?FlowCounter=0152&FlowVers=1&searchMockFlows=False>)

⁸ D0235 - Half Hourly Aggregation Exception Report

(<https://dtc.mrasco.com/DataFlow.aspx?FlowCounter=0235&FlowVers=1&searchMockFlows=False>)

BSC Audit Scope 2021/22

11. Risk 011 – SVA Unmetered Supplies

11.1 The risk that Unmetered Supplies volumes are calculated incorrectly or not at all, resulting in erroneous or missing data in Settlement.

11.2 BSC Audit testing for Settlement Risk 011 includes:

Role	SVA Work Papers
Meter Aggregator (MA)	Retention and maintenance of Equivalent Meter Technical Details (EMTD) and other information required to perform MA functions Receipt and recording of summary inventory records received Fault reporting (notification of missing / unavailable data) and notification of data availability Calculation of deemed meter volumes and provision of output into Settlement
Unmetered Supplies Operator (UMSO)	Maintenance and provision of connection agreements Maintenance and provision of Unmetered Supplies (UMS) inventories Completeness, accuracy and validity of calculation and provision of NHH EACs Creation and provision of UMS Certificates Provision of Standard Settlement Configuration and Profile Class details including disconnections and energisation status
NHHDA	Re-performance of Aggregation
HHDC	Processing of standing data changes received from Supplier and MOA
NHHDC	Processing of standing data changes received from Suppliers and MOA

12. Risk 012 – SVA Metering Equipment Technical Detail Quality

12.1 The risk that SVA Metering System technical details are created incorrectly resulting in erroneous or estimated data in Settlement

12.2 BSC Audit testing for Settlement Risk 012 includes:

Role	SVA Work Papers
HHMOA	Identification and notification of complex sites Quality of MTDs
NHHMOA	Processing of reconfiguration, replacement or removal of metering equipment Processing of requests to investigate inconsistencies (Faults) Processing of changes in Measurement Class between NHH to HH Processing of changes in Measurement Class between HH to NHH Processing of changes of Meter Operator Agent/ Changes of Supplier Processing of Changes of Data collector Agent
LDSO	Completeness of provision of site technical details

13. Risk 013 – SVA Manual adjustments

13.1 The risk that Manual adjustments to Metered Data are not completed correctly, or at all resulting in erroneous data in Settlement.

13.2 BSC Audit testing for Settlement Risk 013 includes:

Role	SVA Work Papers
NHHDC	Correct Incorrect Register Mapping Processing of meter reading withdrawals Validity of DMA Follow up EAC/AA exception report Follow up of EAC/AA filter exceptions Adequacy of controls over large EAC/AA Gross Volume Correction (GVC) - Compensating Crystallised Errors Implementation of Modification P196 Long term vacant sites (NHH)

BSC Audit Scope 2021/22

Supplier	[NHH only] Compensating Crystallised Errors [NHH only] Long Term Vacant Sites [NHH only] Processes surrounding the identification and correction of potentially erroneous EACAA Processes and controls operated by a Supplier to ensure key processes are operating
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14. Risk 014 – SVA Agent appointments

14.1 The risk that 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 resulting in Estimated data in Settlement

14.2 BSC Audit testing for Settlement Risk 014 includes:

Role	SVA Work Papers
Supplier	Processes and controls operated by a Supplier to ensure key processes are operating Appointments and de-appointments Process Change of Measurement Class (COMC)

15. Risk 015 – SVA Reference data

15.1 The risk that SVA reference data is not created or transferred correctly, or at all, resulting in erroneous data in Settlement.

15.2 BSC Audit testing for Settlement Risk 015 includes:

Role	SVA Work Papers
	No work papers currently in scope.

16. Risk 016 – SVA Energisation status

16.1 The risk that 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 resulting in erroneous or estimated data in Settlement.

16.2 BSC Audit testing for Settlement Risk 016 includes:

Role	SVA Work Papers
HHDC	Processing of standing data changes received from Supplier and MOA
HHMOA	Processing of changes to Energisation Status Backlogs
LDSO	Completeness of disconnection of Metering Systems Changes to energisation status
NHHDC	Processing of standing data changes received from Suppliers and MOA Visits to De-energised sites Backlogs of standing data flows and meter readings
NHHMOA	Processing of changes to Energisation Status Backlogs
Supplier	Processes and controls operated by a Supplier to ensure key processes are operating

17. Risk 017 – SVA Exception management

17.1 The risk that Exception reports are not sufficiently managed, such that material exceptions are not addressed at all or in a timely manner resulting in default or estimated data in Settlement.

17.2 BSC Audit testing for Settlement Risk 017 includes:

Role	SVA Work Papers
HHDA	Reporting of anomalies to HHDC Agents and Suppliers (D0235)
HHDC	Resolution of Inconsistencies
NHHDA	Level of D0095 exceptions as reported by NHHDA

BSC Audit Scope 2021/22

NHHDC	Resolution of D0023 rejections Resolution of D0095 exceptions
Supplier	[HH only] Processes surrounding the identification and correction of HH data quality exceptions (D0235) [NHH only] Processes surrounding the identification and correction of NHH data quality exceptions (D0095)

18. Risk 018 – SVA Revenue protection

18.1 The risk that Revenue Protection processes are not managed sufficiently, such that unrecorded energy volumes are excluded from Settlement resulting in erroneous or missing data in

18.2 BSC Audit testing for Settlement Risk 018 includes:

Role	SVA Work Papers
Supplier	Processes and controls operated by a Supplier to ensure key processes are operating

SVA Process Assessment – Industry roles in Scope

Supplier Meter Registration Agents

Each Supplier Meter Registration Agent (SMRA) identifies all Metering Systems attached to a Distribution Network. The SMRA will hold the history of Supplier registrations for each Metering System. They provide information on unmetered exit points with the history of their Supplier registrations. In addition, SMRAs will provide Line Loss Factor Classes. The contractual relationship between Suppliers and SMRAs is encapsulated in the Master Registration Agreement (MRA).

Data Retrieval & Data Processing (Data Collectors)

Retrieval encompasses Meter reading and detection of potential Meter reading faults (on behalf of the MOA).

Data Processing is the validation and conversion of Meter readings into energy consumption, the estimation of missing data using an approved method and the transmission of this data to the DA.

Data Aggregation

Data Aggregation is the aggregation of Supplier or BM Unit specific energy consumption data, after the application of LLF for HH metered data, to produce the aggregated data.

Meter Operators

MOAs hold key information on all Metering Systems attached to the Distribution System including Meter history and technical details. MOAs are also responsible for the installation and removal of Meters and their general maintenance in compliance with the relevant Codes of Practice. MOAs form part of the Supplier hub and as such operate several key interfaces with other Supplier Agents (particularly Data Collectors).

The BSC Audit will not directly cover accuracy of metering or standards of metering installation, however the findings of the Technical Assurance Agent (TAA) under the Technical Assurance of Metering (TAM) technique will be sent to the BSC Auditor for consideration in its reporting.

Audit of CVA MOAs to be targeted is based on previous audit issues identified and the number of actions completed by the Agent during the year.

Licensed Distribution System Operators

Licensed Distribution System Operators (LDSOs) are responsible for the overall management and maintenance of Distribution Systems in addition to the registration of Metering Systems in SMRS.

Unmetered Supply Operators

BSC Audit Scope 2021/22

LDSOs are responsible for the Unmetered Supplies Operator (UMSO) function. UMSOs are responsible for managing any Unmetered Supplies (UMS) attached to a Distribution Network, and are required to provide specific details to Suppliers and Supplier Agents in order that they can meet their Settlement obligations.

Meter Administrators

Meter Administrators are responsible for calculating the half-hourly allocation for HH SVA UMS and providing this information to the DC.

Supplier Systems and Associated Internal Procedures

Suppliers are responsible for managing their Supplier Agents and for providing key data to their Supplier Agents as set out in the BSC and BSC Procedures.

Data Transfer

The Data Transfer Service and NETA network service are outside the scope of the BSC Audit but the audit will include reviews at market participants' premises to check dispatch and receipt of data messages.

Off The Shelf Model

The majority of the newer 'off the shelf' Performance Assurance Parties (PAPs) do not breach the Metering System Identifier (MSID) threshold to fall in scope for the BSC Audit; this is perceived as a gap between the Qualification process and the BSC Audit process. While the size of these smaller PAPs limits their potential impact on Settlement, there are concerns in some cases that some 'off the shelf' PAPs may not have sufficient experience and processes in place in order to operate effectively in terms of Settlement.

ELEXON will utilise the following approach in response to the changing market where looking exclusively at MSID thresholds may no longer be appropriate in all instances.

The BSC Audit will include:

- 1 to 4 'off the shelf' PAPs (varied roles) targeted for a full intensity audit, irrespective of whether or not they fall in scope through MSID threshold. ELEXON will aim to target managed services groups and PAPs demonstrating poor behaviour. (A proportional number of smaller PAPs which do meet the MSID threshold and have performed well in previous audits will be removed from scope to compensate.)

CVA Assurance Opinion - BSC Systems and BSC Agents

19. Central Registration

19.1 The Central Registration Agent (CRA) collects, validates, stores and distributes shared reference data used by other related business processes. This includes the registering of all Meter Points, Metering Systems, Balancing Mechanism (BM) Units, Trading Units, and sets of Aggregation Rules for each BSC Party.

19.2 The BSC Audit testing includes:

- Maintenance of the BM Credit Assessment Export Capability (BMCAEC)
- Maintenance of the BM Credit Assessment Import Capability (BMCAIC)

20. Aggregate and Check Contract Volume

20.1 The Energy Contract Volume Aggregation Agent (ECVAA) accepts or rejects Energy Contract Volume Notifications (ECVNs) and Metered Volume Reallocation Notifications (MVRNs). The ECVAA aggregates valid ECVNs and MVRNs to determine the Account Bilateral Contract Volume for each Party's Energy Account. The ECVAA reports the Account Bilateral Contract Volume for each Party and Settlement Period for that Settlement Day to the Settlement Administration Agent (SAA) on a daily basis.

20.2 The BSC Audit testing includes:

- Acceptance of ECVN and MVRN
- Aggregation of valid Energy Contract Volume Reallocation Notifications and Metered Volume Reallocation Notifications
- Submission of data to the Settlement Administration Agent

BSC Audit Scope 2021/22

21. Credit Cover Management

21.1 Credit monitoring of BSC Parties is the responsibility of the Funds Administration Agent (FAA), ECVAA and BSCCo. Letters of credit/cash are lodged with the FAA. The ECVAA calculates the Credit Cover Percentage and notifies BSCCo if the agreed Default limits are exceeded.

21.2 The BSC Audit testing includes:

- Application of Credit Cover rules as defined within the BSC

22. Balancing Mechanism Reporting

22.1 The Balancing Mechanism Reporting Agent (BMRA) publishes a range of public market information for users of the service and calculates data for submission to Settlement.

22.2 The BSC Audit testing includes:

- The consistency of the data that is included within the reports that are published by the BMRA

23. Calculation of Market Index Data

23.1 The Market Index Data Providers (MIDPs) calculate and provide to the BMRA and SAA a market price in respect of each Settlement Period on a half hourly and daily basis. The market price reflects the price of wholesale electricity in the short-term market.

23.2 The BSC Audit testing includes:

- The controls surrounding the calculation and transfer of the Market Index Data to the BMRA and SAA
- Determination and calculation of the Market Index Data (in accordance with the Market Index Definition Statement).

24. Calculation and Aggregation of Metered Data

24.1 The Central Data Collection Agent (CDCA) collects and aggregates the metered data from Metering Systems registered in CRA. The volumes for missing or disputed data are estimated in accordance with the BSC and reported to the Central Volume Allocation Meter Operator Agent (CVA MOA) and BSCCo. The Grid Supply Point (GSP) Group Take is calculated in accordance with the Settlement timetable (published on the BSC Website). This information is passed to the Supplier Volume Allocation Agent (SVAA) and is used as the basis for calculating the Supplier Volume Allocation (SVA).

24.2 The BSC Audit testing includes:

- Completeness of Commissioning and Proving Test records
- Aggregation of metered data registered in CDCA
- Calculation of GSP Group Take

25. Calculate Settlement Debits and Credits

25.1 The SAA receives calculated Supplier Volume Allocations, Contract Volume and reallocation data, GSP Group Take and Information Imbalance Price. The SAA performs the Interim, Initial Settlement and Reconciliation runs according to the Settlement timetable and calculates the Credits and Debits resulting from the Settlement of Balancing Mechanism actions and Imbalance cash-out. Settlement reports are sent to BSC Parties to validate, and to the Funding Administration Agent (FAA).

25.2 The BSC Audit testing includes:

- Calculation of Credits and Debits to BSC Parties via Balancing Mechanism and the imbalance Settlement arrangements
- Calculation of Main and Market Prices as used in imbalance Settlement arrangements.

26. Funds Transfer

26.1 The FAA manages the funds transfer process.

26.2 The BSC Audit testing includes:

- Calculations of the charges for each BSC Party for each Settlement Run

BSC Audit Scope 2021/22

- Aggregation of instructions for Initial Settlement related transfers of money into one charge/payment per BSC Party per day
- Production of Advice Notes/Statements to be sent to BSC Parties on the basis of the required charge payments

27. Market Domain Data

27.1 Market Domain Data (MDD) is standing data required for the operation of SVA. The data falls into two categories - Organisation Data and Classification Data:

27.1.1 Organisation Data includes company name and identifiers for Distributor, Supplier and relevant Supplier Agents.

27.1.2 Classification Data includes Valid Measurement Requirement Profile Classes, Time Pattern Regimes and Standard Settlement Configurations.

27.2 The BSC Audit testing includes:

- Completeness and consistency of data items entered into MDD
- Input of key data items received from MDD by Data Aggregators (DAs) including LLFs

28. Supplier Volume Allocation & Reconciliation

28.1 Supplier Volume Allocation & Reconciliation is the aggregation of Supplier/BM Unit Purchase Matrices to a GSP Group and calculation/recalculation of the Deemed Take for each GSP Group.

28.2 The Temperature Provider is sub-contracted by the SVAA to provide Noon Temperature Data.

28.3 The Time of Sunset Provider is sub-contracted by the SVAA to provide Time of Sunset Data.

28.4 The Teleswitch Agent provides the Teleswitch Data.

28.5 The Profile Administrator is the agent contracted by BSCCo to derive sets of regression coefficients for each Profile Class. The Profile Administrator will monitor the accuracy of profiles delivered from the Profile coefficients.

28.6 The BSC Audit testing includes:

- NHH data (from Supplier Purchase Matrix)
- HH data
- Daily Profile variables (Noon Temperature Data, Time of Sunset Data, Teleswitch Data)
- GSP Group Take (from CDCA)
- LLFs
- Application of regression coefficients
- Application of time of sunset/Teleswitch data
- Application of Default data (including BM Units)
- Production of daily Profiles
- Calculation of Deemed Take
- Calculation of volumes by BM Unit

29. Trading Disputes

29.1 The Trading Disputes process is used to correct errors in Settlement.

29.2 The BSC Audit testing includes:

- Procedures and documentation for registration and logging of Trading Disputes in respect of Reconciliation Settlement Runs
- Procedures and documentation in operation for the registration/logging of queries and requests for assistance
- Resolution of Trading Disputes and application of dispute payments

30. Balancing Mechanism

30.1 The System Operator shall be audited by the BM Auditor against the requirements of Section H 5.1.6 of the BSC, which relates to the compilation and submission of data to the SAA.

Additional Considerations

All BSC Parties and Central Systems have to implement changes approved by the BSC Panel. The releases are issued three times a year (February, June and November) and have to be fully implemented in the affected systems to ensure compliance with the BSC.

The BSC Audit will include:

- Checks to ensure 0 to 3 BSC Modifications or Change Proposals selected by ELEXON have been successfully implemented by Suppliers, Supplier Agents and Licensed Distribution System Operators. (Changes will be selected based on potential material impact.) This testing will focus on confirming the successful and compliant implementation of the relevant change(s) rather than looking at Parties' change management processes.

Areas Out of Scope

The activities/ data which fall outside the scope of the BSC Audit are detailed below.

Activity/ Data	Reason For Exclusion
Customer billing.	Outside scope of BSC.
Production of Transmission Network Use of System (TNUoS)/ Distribution Use of System (DUoS) reports.	Outside scope of BSC - does not form part of calculation and allocation of funds under the BSC.
MRA disputes procedures.	Outside scope of BSC – included within the Master Registration Agreement.
Contractual relationship between Parties and their Party Agents and between BSCCo and BSC Agent.	Does not form part of the calculation and allocation of Trading Charges under the BSC.
Electricity Market Reform (EMR)	Outside scope of BSC.