

# BSC Audit Scope 2019/20

August 2019



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# BSC AUDIT SCOPE 2019/20

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## DIRECTION FOR THE BALANCING AND SETTLEMENT CODE (BSC) AUDIT

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For the audit year 2019/20, ELEXON has more closely aligned the BSC Audit Scope to the Risk Operating Plan (ROP), which has identified eight Settlement Risks (subject to ROP consultation responses and approval) that ELEXON and the BSC Audit should particularly concentrate on:

- **SR003** – SVA Metering Equipment installation, programming, maintenance and Commissioning
- **SR005** – SVA Metering Equipment Fault resolution
- **SR007** – Retrieval of SVA Metered Data
- **SR011** – Unmetered Supplies
- **SR016** – SVA Metering System Energisation status
- **SR018** – Revenue protection
- **SR021** – Retrieval and processing of CVA Metered Data
- **SR023** – CVA Metering Equipment Fault resolution

ELEXON have 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
- 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

Testing will also be carried out over SoLR processes to provide assurance both over ELEXON's internal operation of this process and with respect to gaining Suppliers.

Sections that are greyed out indicate that these areas will not be covered in the 2019/20 except at Parties that have material issues raised against those areas.

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## SCOPE OF THE BSC AUDIT

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This document details the scope of the BSC Audit and terms of reference for the BSC Auditor for 1 April 2019 to 31 March 2020.

The scope of the BSC Audit for 2019/20 will include the functions and processes described below.

### SVA Process Assessment – Settlement Risks and Testing

#### 1. Risk 01 – 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 01 includes:

Role	SVA Work Papers
SMRA	<ul style="list-style-type: none"><li>• Processing of standing data changes received from Suppliers and LDSO</li><li>• Validity of standing data</li><li>• Processing of Objections and Objection Removal (on Change of Supply)</li><li>• Processing of retrospective amendments</li><li>• Resolution of D0023 rejections</li></ul>
Supplier	<ul style="list-style-type: none"><li>• Processes and controls operated by a Supplier to ensure key processes are operating</li><li>• Updates of Registration Details</li></ul>

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### 2. Risk 02 – 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 02 includes:

Role	SVA Work Papers
SMRA	<ul style="list-style-type: none"><li>Processing of standing data changes received from Suppliers and LDSO</li><li>Validity of standing data</li><li>Processing of SMRS Refresh Requests</li><li>Processing of retrospective amendments</li><li>Resolution of D0023 rejections</li></ul>
Supplier	<ul style="list-style-type: none"><li>Processes and controls operated by a Supplier to ensure key processes are operating</li><li>Processing of data flows - backlogs</li></ul>

### 3. Risk 03 – 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 Audit work undertaken against Risk 03 will be targeted in line with the 2019 PAF Review Technical Assurance of Metering recommendations to ensure that assurance work is focused on the areas of greatest risk.

3.3 BSC Audit testing for Settlement Risk 03 includes:

Role	SVA Work Papers
HHMOA	<ul style="list-style-type: none"><li>Processes around Commissioning</li></ul>
LDSO	<ul style="list-style-type: none"><li>Commissioning</li></ul>

### 4. Risk 04 - 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 04 includes:

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Role	SVA Work Papers
HHDC	<ul style="list-style-type: none"> <li>Processing of standing data changes received from Supplier and MOA</li> </ul>
HHMOA	<ul style="list-style-type: none"> <li>Processing of reconfiguration, replacement or removal of metering equipment</li> <li>Processing of changes in Measurement Class between NHH and HH</li> <li>Processing of changes in Measurement Class between HH and NHH</li> <li>Identification and notification of complex sites</li> <li>Backlogs</li> </ul>
LDSO	<ul style="list-style-type: none"> <li>Completeness of provision of site technical details</li> </ul>
NHHDC	<ul style="list-style-type: none"> <li>Processing of standing data changes received from Suppliers and MOA</li> </ul>
NHHMOA	<ul style="list-style-type: none"> <li>Processing of reconfiguration, replacement or removal of metering equipment</li> <li>Processing of changes in Measurement Class between NHH and HH</li> <li>Processing of changes in Measurement Class between HH and NHH</li> <li>Backlogs</li> </ul>

### 5. Risk 05 – 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 05 includes:

Role	SVA Work Papers
HHDC	<ul style="list-style-type: none"> <li>Reporting of consumption on de-energised Meter (D0001) to Supplier and MOA</li> <li>Resolution of Inconsistencies</li> </ul>
HHMOA	<ul style="list-style-type: none"> <li>Processing of requests to investigate inconsistencies (faults)</li> </ul>
NHHMOA	<ul style="list-style-type: none"> <li>Processing of requests to investigate inconsistencies (faults)</li> </ul>
Supplier	<ul style="list-style-type: none"> <li>Fault Resolution Processes</li> </ul>

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### 6. Risk 06 – 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 06 includes:

Role	SVA Work Papers
HHDC	<ul style="list-style-type: none"><li>Processing of standing data changes received from Supplier and MOA</li></ul>
HHMOA	<ul style="list-style-type: none"><li>Processing of changes of Meter Operator Agent / changes of Supplier</li><li>Processing of changes of Data Collector Agent</li><li>Processing of registration transfers between CMRS and SMRS</li><li>Processing of registration transfers between SMRS and CMRS</li><li>Identification and notification of complex sites</li><li>Backlogs</li></ul>
NHHDC	<ul style="list-style-type: none"><li>Processing of standing data changes received from Suppliers and MOA</li><li>Backlogs of standing data flows and meter readings</li></ul>
NHHMOA	<ul style="list-style-type: none"><li>Processing of changes of Meter Operator Agent / changes of Supplier</li><li>Processing of changes of Data Collector Agent</li><li>Backlogs</li></ul>

### 7. Risk 07 – 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 BSC Audit testing for Settlement Risk 07 includes:

Role	SVA Work Papers
HHMOA	<ul style="list-style-type: none"><li>Backlogs</li></ul>
NHHMOA	<ul style="list-style-type: none"><li>Backlogs</li><li>Final Meter exchange (MEX) removal reads submitted as “0”</li></ul>



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Supplier	<ul style="list-style-type: none"> <li>Processing of data flows - backlogs</li> </ul>
HHDC	<ul style="list-style-type: none"> <li>Processing of Metering System Related Details (D0170) on request after Change of Supplier/Agent event</li> <li>Processing of HH consumption</li> <li>Validity of consumption</li> <li>Performance of MAR</li> <li>Resolution of Inconsistencies</li> <li>Backlogs of Incoming/Outgoing flows</li> </ul>
NHHDC	<ul style="list-style-type: none"> <li>Processing of meter readings collected via hand held unit</li> <li>Processing of meter readings collected via manual meter sheet or other paper record</li> <li>Processing of meter readings collected via Supplier (D0010) or other electronic method</li> <li>Validity of meter readings</li> </ul>

### 8. Risk 08 – 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 08 includes:

Role	SVA Work Papers
HHDC	<ul style="list-style-type: none"> <li>Processing of standing data changes received from Supplier and MOA</li> <li>Processing of HH consumption</li> <li>Validity of consumption</li> <li>Data estimation</li> <li>Backlogs of Incoming/Outgoing flows</li> <li>Resolution of Inconsistencies</li> <li>Processing of Metering System Related Details (D0170) on request after Change of Supplier/Agent event</li> </ul>
NHHDC	<ul style="list-style-type: none"> <li>Processing of standing data changes received from Suppliers and MOA</li> <li>Validity of standing data</li> <li>Processing of meter readings collected via hand held unit</li> </ul>

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	<ul style="list-style-type: none"> <li>• Processing of meter readings collected via manual meter sheet or other paper record</li> <li>• Processing of meter readings collected via Supplier (D0010) or other electronic method</li> <li>• Validity of meter readings</li> <li>• Override of reads which have failed validation</li> <li>• Validity of meter reading withdrawals</li> <li>• Processing of meter reading withdrawals</li> <li>• Processing of DMA on Change of Supplier</li> <li>• Validity of DMA</li> <li>• Processing of DMA after RF where have an EAC with no AA at RF and a meter reading has been received post RF</li> <li>• Re-performance of DMA calculation performed by EAC/AA calculator</li> <li>• Requests for calculation of EAC/AA</li> <li>• Adequacy of controls over large EAC/AA</li> <li>• Re-performance of calculation performed by EAC/AA calculator</li> <li>• Backlogs of standing data flows and meter readings</li> <li>• Resolution of D0023 rejections</li> <li>• Resolution of D0095 exceptions</li> <li>• Processing of Metering System Related Details (D0010 and D0152) on request after Change of Supplier/Agent event</li> </ul>
Supplier	<ul style="list-style-type: none"> <li>• [NHH only] Processes surrounding the identification and correction of potentially erroneous EACAA</li> </ul>

### 9. Risk 09 – 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 09 includes:

Role	SVA Work Papers
HHDA	<ul style="list-style-type: none"> <li>• Processing of MDD</li> <li>• Validity of MDD</li> <li>• Processing of standing data changes received from SMRS</li> <li>• Validity of standing data</li> </ul>

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	<ul style="list-style-type: none"> <li>• Obtaining and processing of Line Loss Factors from ELEXON website</li> <li>• Processing and validation of BM unit data received from Supplier</li> <li>• Validity of HH consumption data</li> <li>• Re-performance of Aggregation</li> <li>• Sending of SPMs to SVAA</li> <li>• Data/Flow processing backlogs at DA</li> <li>• Reporting of anomalies to HHDC Agents and Suppliers (D0235)</li> </ul>
NHHDA	<ul style="list-style-type: none"> <li>• Processing and validity of MDD</li> <li>• Processing of standing data changes and consumption received from SMRS and NHHDC</li> <li>• Validity of standing data and consumption</li> <li>• Re-performance of Aggregation</li> <li>• Sending of SPMs to SVAA</li> <li>• Notification of MPANs excluded from the RF</li> <li>• Data/Flow processing backlogs at DA</li> <li>• Level of outstanding D0023 flows reported by NHHDA</li> </ul>
NHHDC	<ul style="list-style-type: none"> <li>• Re-performance of DMA calculation performed by EAC/AA calculator</li> <li>• Re-performance of calculation performed by EAC/AA calculator</li> </ul>

### 10. Risk 10 – 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 10 includes:

Role	SVA Work Papers
HHDC	<ul style="list-style-type: none"> <li>• Processing of Metering System Related Details (D0170) on request after Change of Supplier/Agent event</li> </ul>
NHHDC	<ul style="list-style-type: none"> <li>• Processing of Metering System Related Details (D0010 and D0152) on request after Change of Supplier/Agent event</li> </ul>

### 11. Risk 11 – SVA Unmetered Supplies

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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 11 includes:

Role	SVA Work Papers
MA	<ul style="list-style-type: none"><li>Retention and maintenance of EMTD and other information required to perform MA functions</li><li>Receipt and recording of summary inventory records received</li><li>Fault reporting (notification of missing / unavailable data) and notification of data availability</li><li>Calculation of deemed meter volumes and provision of output into settlement</li></ul>
UMSO	<ul style="list-style-type: none"><li>Maintenance and provision of connection agreements</li><li>Maintenance and provision of UMS inventories</li><li>Completeness, accuracy and validity of calculation and provision of NHH EACs</li><li>Creation and provision of UMS Certificates</li><li>Provision of Standard Settlement Configuration and Profile Class details including disconnections and energisation status</li></ul>
NHHDA	<ul style="list-style-type: none"><li>Re-performance of Aggregation</li></ul>
HHDC	<ul style="list-style-type: none"><li>Processing of standing data changes received from Supplier and MOA</li></ul>
NHHDC	<ul style="list-style-type: none"><li>Processing of standing data changes received from Suppliers and MOA</li></ul>

### 12. Risk 12 – 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 12 includes:

Role	SVA Work Papers
HHMOA	<ul style="list-style-type: none"><li>Identification and notification of complex sites</li><li>Quality of MTDs (new paper not yet developed)</li></ul>
LDSO	<ul style="list-style-type: none"><li>Completeness of provision of site technical details</li></ul>

### 13. Risk 13 – SVA Manual adjustments

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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 13 includes:

Role	SVA Work Papers
NHHDC	<ul style="list-style-type: none"><li>• Correct Incorrect Register Mapping</li><li>• Processing of meter reading withdrawals</li><li>• Validity of DMA</li><li>• Follow up EAC/AA exception report</li><li>• Follow up of EAC/AA filter exceptions</li><li>• Adequacy of controls over large EAC/AA</li><li>• GVC - Compensating Crystallised Errors</li><li>• Implementation of modification P196 Long term vacant sites (NHH)</li></ul>
Supplier	<ul style="list-style-type: none"><li>• [NHH only] Compensating Crystallised Errors</li><li>• [NHH only] Long Term Vacant Sites</li><li>• [NHH only] Processes surrounding the identification and correction of potentially erroneous EACAA</li><li>• Processes and controls operated by a Supplier to ensure key processes are operating</li></ul>

### 14. Risk 14 – 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 14 includes:

Role	SVA Work Papers
Supplier	<ul style="list-style-type: none"><li>• Processes and controls operated by a Supplier to ensure key processes are operating</li><li>• Appointments Process</li><li>• COMC (new paper not yet developed)</li></ul>

### 15. Risk 15 – 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 15 includes:

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Role	SVA Work Papers
	No work papers currently in scope.

### 16. Risk 16 – 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 16 includes:

Role	SVA Work Papers
HHDC	<ul style="list-style-type: none"><li>Processing of standing data changes received from Supplier and MOA</li></ul>
HHMOA	<ul style="list-style-type: none"><li>Processing of changes to Energisation Status</li><li>Backlogs</li></ul>
LDSO	<ul style="list-style-type: none"><li>Completeness of disconnection of Metering Systems</li><li>Changes to energisation status</li></ul>
NHHDC	<ul style="list-style-type: none"><li>Processing of standing data changes received from Suppliers and MOA</li><li>Visits to De-energised sites</li><li>Backlogs of standing data flows and meter readings</li></ul>
NHHMOA	<ul style="list-style-type: none"><li>Processing of changes to Energisation Status</li><li>Backlogs</li></ul>
Supplier	<ul style="list-style-type: none"><li>Processes and controls operated by a Supplier to ensure key processes are operating</li></ul>

### 17. Risk 17 – 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 17 includes:

Role	SVA Work Papers
HHDA	<ul style="list-style-type: none"><li>Reporting of anomalies to HHDC Agents and Suppliers (D0235)</li></ul>

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HHDC	<ul style="list-style-type: none"><li>Resolution of Inconsistencies</li></ul>
NHHDA	<ul style="list-style-type: none"><li>Level of D0095 exceptions as reported by NHHDA</li></ul>
NHHDC	<ul style="list-style-type: none"><li>Resolution of D0023 rejections</li><li>Resolution of D0095 exceptions</li></ul>
Supplier	<ul style="list-style-type: none"><li>[HH only] Processes surrounding the identification and correction of HH data quality exceptions (D0235)</li><li>[NHH only] Processes surrounding the identification and correction of NHH data quality exceptions (D0095)</li></ul>

### 18. Risk 18 – 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 18 includes:

Role	SVA Work Papers
Supplier	<ul style="list-style-type: none"><li>Processes and controls operated by a Supplier to ensure key processes are operating</li></ul>

## SVA PROCESS ASSESSMENT – INDUSTRY ROLES IN SCOPE

### 19. Supplier Meter Registration Data

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).

### 20. Data Retrieval & Data Processing (Data Collection)

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.

### 21. Data Aggregation

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

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### 22. Meter Operation

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.

### 23. Licensed Distribution System Operation

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.

### 24. Unmetered Supplies

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.

### 25. Meter Administration

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

### 26. 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 despatch and receipt of data messages.

### 27. 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.

## CVA Assurance Opinion - BSC Systems and BSC Agents

### 28. Central Registration

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.

The BSC Audit will include:

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



### 29. Aggregate and Check Contract Volume

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.

The BSC Audit will include:

- 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

### 30. Credit Cover Management

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.

The BSC Audit will include:

- Application of Credit Cover rules as defined within the BSC

### 31. Balancing Mechanism Reporting

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.

The BSC Audit will include:

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

### 32. Calculation of Market Index Data

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.

The BSC Audit will include:

- 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)

### 33. Calculation and Aggregation of Metered Data

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).

The BSC Audit will include:

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

### 34. Calculate Settlement Debits and Credits

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 FAA.

The BSC Audit will include:

- 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

### 35. Funds Transfer

The FAA manages the funds transfer process.

The BSC Audit will include:

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

### 36. Market Domain Data

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

- Organisation Data includes company name and identifiers for Distributor, Supplier and relevant Supplier Agents.
- Classification Data includes Valid Measurement Requirement Profile Classes, Time Pattern Regimes and Standard Settlement Configurations.

The BSC Audit will include:

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

### 37. Supplier Volume Allocation & Reconciliation

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.

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

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

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The Teleswitch Agent provides the Teleswitch Data.

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.

The BSC Audit will include application of key standing and dynamic data items used by the SVAA including:

- 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

### 38. Trading Disputes

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

The BSC Audit will include:

- 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

### 39. Balancing Mechanism

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.

### 40. Implementation of Specific BSC Changes

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.

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## ADDITIONAL CONSIDERATIONS

### 41. Off The Shelf

The majority of the newer 'off the shelf' PAPs do not breach the 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 be adopting 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.)

## 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.

## MATERIALITY THRESHOLD

The BSC Auditor will 'Qualify' its audit opinion if it cannot provide reasonable assurance that the total level of error in Settlement is less than the materiality threshold (2019/20 1.2TWh).

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## REPORTING

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Unless otherwise agreed with the BSC Panel, the BSC Audit Report for 2019/20 will be presented to the Panel in June 2020.