Balancing and Settlement Code

BSC Service Description for Central Data Collection

Date:

AMENDMENT RECORD

Version	Date	Description of Changes	Changes Included	Author
1.0	27/03/01	Baseline version		NETA Programme
2.0	13/08/02	Release 2	CP548, CP563	CVA Programme
3.0	10/12/02	Changes for CDCA Improvement Project and the December 02 Release	CP571, P55, CP753,CP511, CP629, CP637	CVA Programme
4.0	24/06/03	Changes for the CVA Programme Jun 03 Release plus changes to remove a derogation arising from the implementation of P55/CP753 in the Dec 02 Release	CP756 P55 CP753	CVA Programme
5.0	01/08/03	Changes for Modification P62	P62	CVA Programme
6.0	05/11/03	November 03 Release	P82, P99, P107	CVA Programme
7.0	30/06/04	Change Proposals for June 04 Release	CP609, CP988	CVA Programme
8.0	BETTA Effective Date	CVA Feb 05 Release	CP1091, BETTA 6.3	CVA Programme
9.0	28/06/06	June 06 Release	P190, CP1152	Change Implementation Team
10.0	22/02/07	February 07 Release	CP1153 v2.0	Change Implementation Team
11.0	23/08/07	P197 Release	P197	ELEXON
12.0	28/02/08	February 08 Release	CP1201	ELEXON
13.0	26/06/08	June 08 Release	CP1219	ELEXON
14.0	26/02/09	February 09 Release	CP1255	Change Implementation Team
15.0	25/06/09	June 09 Release	P215	Change Implementation Team
16.0	24/06/10	June 10 Release	CP1324	ISG111/03
17.0	04/11/10	November 10 Release	P257	Panel
18.0	03/11/11	November 11 Release	P253	ISG127/02

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SCHEDULE 1- BSC OPERATING SERVICES

PART F – SERVICE DESCRIPTION FOR CENTRAL DATA COLLECTION

1.   OVERVIEW

1.1   This is the Service Description for the CDCA appointed by the BSCCo for the purpose of providing a central data collection service relating to Metering Systems collecting, processing and aggregating metered data associated with Metering Systems registered with the CRA;

1.2   The purpose of this Service Description is to describe:-

(a)   the responsibilities and obligations of the CDCA for the collection, validation, processing and aggregation of metered data within the timescales required to enable Settlement to meet the Payment Calendar; and

(b)   the actions to be taken by the CDCA where metered data is incorrect, incomplete or missing and the processes of data estimation and substitution;

1.3   This Service Description also describes the key interfaces between the CDCA and BSC Agents such as the CRA and the SAA, BSC Trading Parties and MOAs;

1.4   The CDCA shall:-

(a)   establish and maintain a database of registration data provided by the CRA and BSC Trading Parties;

(b)   receive, validate and maintain Meter Technical Details associated with each Metering System for each Boundary Point;

(c)   carry out Metering System Proving Tests on all new registrations of Metering Equipment, including any registration transfers of Metering System from SMRS to CMRS, or where there has been a change to hardware for a Boundary Point;

(d)   collect, validate and record Meter data, estimating metered values where necessary;

(e)   carry out Meter Advance Reconciliation;

(f)   aggregate and process Meter volume data, using the latest available Metered Data, Line Loss Factors, Aggregation Rules, Registration Data and Meter Technical Details for the relevant Settlement Day;

(g)   support BSCCo in establishing the network mapping statement and then after in respect of any dispute;

(h)   receive notification of Load Periods and Sample Settlement Periods from BSCCo for Reference Years, by 5 October;

(i)   Not used;

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(j)   not accept estimated meter data from Parties which are submitted later than 45WD before the scheduled Final Reconciliation Settlement run;

(k)   develop and maintain a contingency plan;

(l)   provide a disaster recovery service and develop and maintain a disaster recovery plan;

(m)   provide the BSC Auditor with access to those things required by Section H5.5.2 of the Code which include:

- the systems, system specifications, and other systems documents used by the CDCA in connection with performing its duties as BSC Agent;

- the premises, personnel, data, information and records;

(n)   provide a help-desk service; and

(o)   receive details of Disconnected BM Units; and

(p)   report estimates of Demand Disconnection Volumes to the SAA.

1.5   The terms, definitions and abbreviations used in this Service Description shall have the meanings given in the Glossary and the Part A of this Agreement;

1.6   The CDCA shall meet the performance standards that are required to be achieved in the delivery of this service as detailed in Part G of Schedule 1 of this Agreement;

1.7   This Service Description does not cover any Metering Systems that are registered with the SMRA administered by LDSOs in Great Britain.

2.   PERIOD OF RESPONSIBILITY

2.1   The CDCA shall perform the responsibilities and obligations set out in this Service Description for the relevant Boundary Points for all Settlement Days for which the CDCA is appointed by BSCCo.

3.   SERVICE AVAILABILITY

3.1   The CDCA shall make its systems and processes available such that the collection, aggregation, validation and transfer of aggregated Meter volume data is completed for each Settlement Period within the timescales required to meet Settlement.

4.   REGISTRATION OBLIGATIONS

The CDCA shall:-

4.1   provide a database which allows for the addition, modification and deletion of Aggregation Rules and other information and data provided by BSC Parties and BSC Agents;

4.2   maintain an audit trail of all Aggregation Rules as provided by the relevant BSC Trading Party(s) relating to Metering Systems registered with the CRA and identified to the CDCA;

      4.2.1   where Aggregation Rules are provided via e-mail, perform an authentication check validating the password and the sender's e-mail address against those held within the system for the authorised signatory. Aggregation Rules provided via e-mail can only be authenticated if the signatory has a password registered with the CRA.

4.3.   take account of the effective Settlement Days when each Boundary Point is registered for inclusion in Settlement;

4.4.   maintain an audit trail of all changes relating to registration data, together with any supporting reports to and from the BSC Trading Party and CRA;

4.5.   validate, in accordance with the relevant BSC Procedures, details of each Metering System, BM Unit, Boundary Point and Systems Connection Point received (via the CRA) from the BSC Trading Party or its Agent against other data held by the CDCA. In the event that the CDCA receives a Meter Serial Number (MSN) exceeding 10 characters, the CDCA shall liaise with the MOA or BSC Trading Party, as appropriate, to agree a reduction and will update their systems accordingly;

4.6   provide a read-only database of registration data provided by the CRA;

4.6A   fulfil the obligations set out in section 24 for the Transfer of Registrations of Metering Systems between CMRS and SMRS;

4.7.   record and store all relevant details as received from the CRA to enable the CDCA to fulfill its function as the CDCA and where the CRA has failed to submit data or where data has failed validation, to contact the CRA to request correct data. These details shall include the following:

4.8.   At BSC Trading Party Level:

      (a)   Name, address, telephone / fax numbers(s), email address(es) and any other relevant contact information;

      (b)   Nominated contact(s) and telephone / fax number(s);

      (c)   Authorised signatory(s) / functions and authorised Keys;

4.9   At Interconnector Level:

      (a)   Interconnector Administrator identifier;

      (b)   Name, address, telephone / fax numbers(s), email address(es) and any other relevant contact information;

      (c)   Nominated contact(s) and telephone / fax number(s);

      (d)   Interconnector Id.

4.10   At MOA Level:

    (a)   MOA type;

    (b)   MOA identifier;

    (c)   Name, address, telephone / fax numbers(s), email address(es) and any other relevant contact information;

    (d)   Qualification status;

    (e)   Qualification effective start date;

    (f)   TAA identifier;

4.11.   At Metering System Level:

    (a)   Metering System identifier;

    (b)   Associated MOA;

    (c)   Effective from date;

    (d)   Energisation status;

    (e)   GSP Group identifier (where appropriate);

    (f)   Location;

4.12   At Boundary Point Level:

    (a)   Boundary Point identifier;

    (b)   Associated Metering System identifier(s);

    (c)   Mapping of Metering System to Boundary Point;

4.13   System Connection Points

    (a)   Grid Supply Point (GSP)

    (b)   GSP Group

    (c)   Distribution System Connection Point (DSCP)

4.14   At BM Unit Level:

    (a)   BM Unit identifier;

    (b)   BM Unit Lead Party identifier;

    (c)   Effective start and end dates;

    (d)   Component Boundary Point identifier(s);

(e)   GSP identifier (where appropriate);

(f)   Exempt Export Status

4.15   At Trading Unit Level:

(a)   Trading Unit identifier;

(b)   Component BM Unit identifier(s);

(c)   Effective start and end dates;

(d)   Production or consumption flag.

5.   METERING OBLIGATIONS

The CDCA shall:-

5.1.   receive, validate and maintain records of Meter Technical Details (including passwords where appropriate) associated with each Metering System for each Boundary Point as received from the relevant MOA or Registrant;

5.2.   take account of any updates received from time to time from the relevant MOA or Registrant in the maintenance of records of Meter Technical Details and the use of such details;

5.3.   maintain an audit trail of all changes relating to Meter Technical Details, together with any supporting reports to and from the relevant MOA or Registrant;

5.4.   validate Meter Technical Details received from the MOA or Registrant against other data held by the CDCA to ensure their accuracy and validity.

6.   METERING PROTOCOLS

The CDCA shall:-

6.1.   ensure that its data collection systems are equipped with the appropriate protocols for every type of Outstation with which it is responsible for communicating, and collecting metered data from, for Settlement purposes;

6.2.   procure and install any such newly approved protocols onto its data collection systems when notified by an MOA of its impending use, such that data can be collected from the Meter.

7.   METERING SYSTEM PROVING TESTS

The CDCA shall:-

7.1.   carry out Metering System Proving Tests on all new registrations of Metering Equipment for a Boundary Point or Systems Connection Point or where there has been a change to hardware for a Boundary Point, including any registration transfers of Metering Systems from SMRS to CMRS, or Systems Connection Point which is directly related to the collection of metered data;

7.2.   check all communication links on new Metering System registrations prior to the collection of data for Settlement purposes and transfer the test data received to the relevant MOA responsible for that Metering System for validation of accuracy;

7.3.   only use metered data collected from new Metering System installations in Settlements when validation has been completed and acknowledged by the MOA that the metered data is correct and when the Metering System has been registered by the CRA;

7.4   where the CDCA has undertaken a Metering System Proving Test and is notified by the MOA that the data received is correct, confirm to the CRA that the Metering System Proving Test is successful and that the Aggregation Rules for the BM Unit have been registered.

7.5.   where the CDCA has undertaken a Metering System Proving Test and forwarded the collected Meter data to the MOA for validation and is notified by the relevant MOA that the metered data received from the CDCA is incorrect, determine in conjunction with the MOA the reason(s) for such inaccuracies or incompleteness, and rectify accordingly;

7.6.   report any proving, validation and communications errors associated with any Metering System to the relevant MOA.

7.7   provide monthly information to BSCCo in relation to Proving Tests for input into the Performance Assurance Reporting and Monitoring System (PARMS).

8.   COLLECTION OF METERING SYSTEM DATA

The CDCA shall:

8.1.   collect metered data, in accordance with the parameters detailed in Section 8.2 of this Service Description, from all Metering Systems registered with the CRA, as follows (but not limited to):-

(a)   at a point of connection with a Generator and the Total System;

(b)   at a GSP;

(c)   at an Interconnector;

(d)   at a point of connection between two Distribution Systems;

(e)   at a point of connection between a non-embedded customer and the Total System;

(f)   at any premises which consume energy that are electrically connected to a Distribution System that are not registered with a SMRA;

(g)   at any Exemptable Generating Plant, the Export and Import metered data, or the Export metered data where the Import Metering System is registered in a SMRS.

8.2.   collect and record Meter period data from all Metering Systems at connections as detailed in Section 8.1 of this Service Description, as follows:

(a)   Export Active Energy;

(b)   Import Active Energy;

(c)   Export Reactive Energy; and

(d)   Import Reactive Energy;

Where a Metering System produces metered data (for a Settlement Period) which is collected in units of power (i.e. kW or MW, or kVAr or MVAr) rather than Active Energy or Reactive Energy: convert such metered data to an Active Energy or Reactive Energy value by multiplying by Settlement Period Duration;

8.3.   collect Meter period data relating to the parameters detailed in Section 8.2 of this Service Description from all Main Meters and Check Meters, and or the corresponding data collector outstation registers, where installed and operational, and which are used for Settlement purposes;

8.4.   collect all metered data in Settlement Timescales, taking into account the requirements of Section 8.5 of this Service Description;

8.5   make provisions to collect the Meter period data manually, by visit to site, where collection of Meter period data via a communication link is not possible. Where the Meters are located Offshore at an Offshore Power Park Module, make arrangements, as agreed with the Registrant, to collect the Meter period data manually.

8.6.   provide the relevant BSC Trading Party and MOA with exception reports when the data is either not available for collection or the data is deemed to be invalid;

8.7.   record and store all Meter period data collected from Metering Systems and any cumulative register readings which may be used for Meter Advance Reconciliation purposes. The data items recorded and stored shall include, but not be limited to the following:-

(a)   Metering System identifier;

(b)   Settlement Day;

(c)   Settlement Period (1-50);

(d)   Energy Volume Reading (MWh);

(e)   Import / Export Indicator (I/E); and

(f)   Date of Reading.

8.8   ensure that all processing of collected data is completed and passed to the SAA in sufficient time in order that the Aggregation processes are completed and available for Interim Initial Settlement and Initial Settlement.

9.   VALIDATION OF METERED DATA

The CDCA shall:-

9.1.   validate all metered data as follows:

(a)   that data is received from the correct number of channels;

(b)   that the difference between Main Meter and Check Meters or the relevant outstation channel data associated with the Main Meter and Check Meters do not vary by more than the limits agreed with BSCCo;

(c)   where variation in excess of that prescribed in b) above is evident, investigate the reason(s);

(d)   that data is received for the correct number of periods since last retrieval;

(e)   that the Meter or associated outstation time is within ±20 seconds of Universal Co-ordinated Time at each interrogation;

(f)   investigate any alarms identified during the data collection process;

(g)   that nominal maximum or minimum values have not been exceeded;

(h)   where the outstation provides a cumulative total register for a channel providing period data for Settlement, check that the difference between successive cumulative readings is equal to the sum of the Meter period energy over the same time interval (known as "pulse checking" or "mini-MAR"). The tolerance for this will be ±5%;

9.2.   in addition to the validation rules specified in 9.1 above, use such other validation rules as may be appropriate in order to verify the validity of the metered data;

9.3   retain records of the originally collected metered data and any alarm flags recorded in the Meter or data collector outstation, as appropriate, the reason for failure where the value is invalid and the reason for accepting any data previously flagged as suspect.

10.   MISSING OR INCORRECT DATA – DATA ESTIMATION

The CDCA shall:-

10.1.   estimate metered values, in accordance with the estimation rules agreed with BSCCo, where errors in the Meter period data are notified to the CDCA by the relevant MOA, or any other source, or where the CDCA believes the data to be in incorrect;

10.2.   retain any original value of Meter period data collected, whether such value is processed before or after receipt of any details of invalid data from the MOA, or any other source, and any alarm flags which may be set in the Meter or associated data collector outstation;

10.3   estimate a value for each period for which metered data is either missing or incorrect, in accordance with the agreed rules, and apply a flag to indicate that the metered data has been estimated (no estimations will be carried out for missing or incorrect Reactive metered data);

10.4.   Not used

10.5   Not used

10.6.   use an alternative method for producing an estimate in circumstances where it is known that the agreed data estimation methods above would not be appropriate;

10.6a.   use its own estimated data in the event of a Party not having submitted estimated meter data by the close of business on the day 45 WD before the scheduled Final Reconciliation Settlement Run;

10.7.   notify the Registrant and relevant MOA of the data estimation method used where an alternative method has been used in accordance with Section 10.6;

10.8.   make every endeavour to complete any data estimation and procure agreement to those data estimations from the Registrant in the required timescales in order to submit the estimated or substituted data to the Interim Initial Settlement and Initial Settlement processes;

10.9.   where the Meter period data has been estimated, provide an estimated data report to the relevant BSC Trading Party involved in the trade of the BM Unit and the LDSO. This report shall identify the dates and times for which the Meter period data has been estimated and details of the estimation procedure;

10.10.   retain any original value of Meter period data collected, and any alarm flags which may be set in the Meter or associated data collector outstation;

10.11   notwithstanding paragraph 10.8, in the event that the Registrant's agreement with the estimated data could not be obtained, the CDCA shall nevertheless use the data in Settlement.

10.12   if appropriate, in cases where the same Metering Equipment comprises a Metering System from which data is being collected by both the CDCA and an SVA HHDC, i.e. Exemptable Generating Plant, and the data is missing or suspect, the CDCA shall check the status of that data with the relevant SVA HHDC.

10.13   shall receive from the BMRA and maintain details of Demand Control Events.

10.14   where notified by the Transmission Company and/or relevant LDSO, ensure estimates of Demand Disconnection Volumes for any BM Units subject to Demand Disconnection are shared with the SAA. The CDCA shall receive estimated Demand Disconnection Volume data from the BSCCo. The BSSCo will calculate estimates of Demand Disconnection Volumes and will make every endeavour to procure the Registrants approval for these estimates.

11.   METERING SYSTEM FAULTS

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The CDCA shall:-

11.1.   record all details received from the relevant Party or MOA in respect of Metering Equipment faults;

11.2.   check that any information received is from the MOA registered with the CRA for that Metering System;

11.3.   confirm the details of the fault report with the MOA and act upon the information received, either separately or jointly with the MOA, to ensure that valid data is sent to the SAA;

11.4.   record and report to the MOA all suspected metering faults detected while performing its responsibilities.

11.5.   carry out site inspections where necessary to gain Meter Readings;

11.6   liaise with the TAA as necessary; and

11.7   provide monthly information to BSCCo in relation to metering faults for input into the Performance Assurance Reporting and Monitoring System (PARMS).

12.   METER ADVANCE RECONCILIATIONS

The CDCA shall:-

12.1.   produce a Meter Reading Schedule for each Metering System on an annual basis, at least three months ahead of the commencement of that Meter Reading Schedule and forward to the Registrant of the Metering System and the relevant MOA;

12.2.   schedule Meter reading visits as follows:

- at least every 12 months for Meters with integral Outstations that provide a cumulative reading of the prime Meter register equivalent to the total consumption or production of that Meter;

- at least every 6 months for other Meters with integral Outstations;

- at least every 3 months for Meters with external Outstations[CP1324]; and

- for Meters, with external Outstations, located Offshore at Offshore Power Park Modules:

  - within 3 Months of commencement of the Meter Reading Schedule for the first Meter reading visit; and

  - at least every 12 months for each Meter reading visit thereafter.

12.3.   keep a list of which Meters qualify for which frequency of visit;

12.4   ensure, or procure that Meter reading is carried out on the registers of all physical Meters recording active energy and the active energy registers of associated data

collector outstations, where applicable, which provide Meter period data collected by the CDCA for Settlement purposes, in accordance with Section 12.2;

12.5   in all cases, ensure that authorisation for access is granted where the CDCA uses the services of a third party to procure Meter readings;

12.6   ensure that records of all active energy Meter readings are input into the Meter Advance Reconciliation process, recording the relevant dates and times of readings, and comparing the advance of the register reading with the sums of the Meter period data relevant to that register reading over the same time period;

12.7   validate physical Meter reading times as being in Universal Co-ordinated Time or local clock time and take this potential variation into account when comparing the sum of half-hourly values in the reconciliation;

12.8   validate the results of each Meter Advance Reconciliation and provide the relevant MOA, Registrant and, in the event of an MAR error, the BSCCo with a reconciliation report detailing the actual difference calculated for each active energy Meter or associated outstation register;

12.9   in conjunction with the relevant MOA, undertake an investigation, where a discrepancy is detected between the active energy Meter register or associated data collector outstation register and the sum of the respective Meter period data used in Settlements which is in excess of ±0.1%;

12.10   when investigating a discrepancy in excess of that defined in Section 12.9, take into account any period where data estimations have been substituted in the half-hourly Settlement data;

12.11   take appropriate remedial action to resolve the discrepancy, and notify the relevant BSC Trading Party of the remedial action(s) taken, if any, accordingly;

12.12   provide the SAA with a reconciliation report, where there is an error in excess of that defined in Section 12.9, of this Service Description, that may be used as evidence in the resolution of a Dispute, which may be raised by the relevant BSC Trading Party;

12.13   When attending a site the CDCA should perform, or ensure that its appointed agent performs, a visual inspections to ensure that:-

  (a)   there is no evidence of damage to the Metering Equipment;

  (b)   there is no evidence of fuse failure;

  (c)   all indicator lamps are operational;

  (d)   there is no evidence of tampering with the Metering Equipment;

  (e)   there is no evidence of safety measures being compromised;

  (f)   the appropriate metering seals are correctly applied to the Metering Equipment in accordance with prescribed standards which will be

equivalent to Appendix 8 of Schedule 5 of the Meter Operation Code of Practice Agreement; and

(g)   there are no de-energised circuits.

12.14   For Meters with integral Outstations that provide a cumulative reading of the prime Meter register equivalent to the total consumption or production of that Meter, carry out an in-house daily mini-MAR, as defined in Section 9.1h.

12.15   If the daily mini-MAR exceeds the stated tolerance, and it is considered to be a significant error, the CDCA shall report it to the registrant as a Metering Fault.

13.   WORK ON CVA METERING SYSTEMS

The CDCA shall:-

13.1.   receive all notifications of work on Metering Equipment from the relevant MOA;

13.2   receive, and promptly respond to, requests from the relevant MOA to remotely interrogate Metering Systems;

13.3   receive Meter readings from MOAs taken before a Metering System seal has been broken and after it has been resealed.

14.   CHANGE OF METER OR OUTSTATION

The CDCA shall:-

14.1.   liaise with the MOA, where advised by the MOA that a Meter or associated data collector outstation is to be changed or re-programmed, to collect the Meter period data and any cumulative register readings from such Meter or associated data collector outstation prior to the removal or re-programming of the Meter or data collector outstation;

14.2   on replacement or reprogramming of the Meter or associated data collector outstation, carry out a Metering System Proving Test, as necessary, prior to using the collected Meter period data in Settlements.

15.   LOSS FACTORS

The CDCA shall:-

15.1   receive, record and maintain all Line Loss Factors relating to any Metering System received from BSCCo.

15.2   where values are not received from BSCCo, apply default Line Loss Factors according to the following:

(a)   for a new Metering System where no Line Loss Factors have been previously received by the CDCA or are otherwise unavailable, the default values shall be unity (1.00000).

(b)   for an existing Metering System whose Line Loss Factors have expired and no new Line Loss Factors have been submitted or approved, then the latest set of Line Loss Factors approved for that Metering System shall be used by default.

15.3   For the purposes of paragraph 15.2b,

(a)   For a given Settlement Day, the set of Line Loss Factors to be used by default will be those that were approved for the same Settlement Day in the previous year, regardless of whether or not it was a Working Day.

(b)   If the current day is the 29th February, the default Line Loss Factors to be applied shall be those for the 28th February in the previous year.

(c)   When clock change days become involved, default Line Loss Factors have to be applied so as to ensure that the number of Settlement Periods in a day are matched correctly:

     (i)   If the day on which default Line Loss Factors have to be used is a clock change day, the set of Line Loss Factors approved for the corresponding clock change day in the previous year shall be applied.

     (ii)   If for a given Settlement Day, the corresponding day in the previous year was a clock change day, the CDCA shall apply the set of Line Loss Factors that were approved for the Settlement Day immediately after the relevant clock change day.

(d)   If there is still no data available from the previous year, the default value of 1.00000 shall be applied for the relevant Line Loss Factors.

15.4   Default Line Loss Factors shall be applied until such time as BSCCo provides a new set of Line Loss Factors submitted by a LDSO.

15.5   The CDCA shall apply sets of approved Line Loss Factors as provided by BSCCo, and will receive confirmation as to whether any sets are to be applied retrospectively.

15.6   The CDCA shall apply such Line Loss Factors, as required, to the Meter period data values collected from the relevant Meters or associated data collector outstations after validation, and prior to Aggregation.

16. RETENTION OF METERED DATA

The CDCA shall:-

16.1.   maintain and provide on-line access to raw Meter period data and post-validation Meter period data for a period of not less twenty-eight (28) months for each Metering System identifier;

16.2.   produce recoverable archives of volume data, at all levels identified in Section 22 inclusive of this Service Description, for audit purposes;

16.3. maintain records and store all metered data in a secure off site environment, for a period of not less than 7 years. The CDCA may use tape or disk archive for this purpose and the data should be in ASCII readable format, be non-perishable and suitably labelled;

16.4. archive data on a weekly basis;

16.5 where the metered data is stored off-line the CDCA shall make suitable arrangements for access to such data as provided for in Schedule 3 Part A of this Agreement.

17.   TIMEKEEPING

The CDCA shall:-

17.1. set the CDCA data retrieval Instation systems in accordance with Co-ordinated Universal Time. The CDCA data retrieval Instation shall be synchronised to Co-ordinated Universal Time every 15 minutes as part of an automated routine;

17.2. check all Outstation clocks at each retrieval of metered data and synchronise as necessary to UTC according to the following process:

- The CDCA data retrieval Instation system shall, as part of an automated routine, at each data retrieval of Metered data synchronise Outstation Clocks to UTC.

- The CDCA shall generate an error report for all Outstation clocks that will not auto synchronise and are > 9 seconds adrift.

- The CDCA shall, on a daily basis, manually contact all Outstations on the error report and attempt to synchronise the Outstation to UTC.

- The CDCA shall make two attempts to manually synchronise any Outstation and if this fails, shall report the failure to the registered MOA and the BSC Party as a Metering System Fault.

- The CDCA shall issue a summary report to the Client on a monthly basis detailing all clock drift initiated Metering System Faults.

17.3 ensure that any hand-held interrogation unit used for retrieving metered data at site is set to UTC at least once every 24 hours, at all times maintaining the hand-held interrogation unit within the accuracy requirements for CoP1 Metering (i.e. <+/-10 seconds of UTC).

18.   INPUT/OUTPUT DATAFLOWS

18.1 The input/output dataflows from/to the CDCA are detailed in Appendix A.

19.   REPORTING

The CDCA shall:-

19.1.   provide the relevant BSC Trading Party, relevant Licensed Distribution System Operator and the Transmission Company with a Metering System data collection report relating to the raw Meter period data collected from each Meter or associated outstation. This report shall be provided on the day after Settlement Day;

19.2.   provide exception reports to the relevant BSC Trading Party for all exceptions during the validation of collected metered data, Aggregation Rules, aggregation volumes and Meter Advance Reconciliation. For each exception the following data items shall be submitted:-

(a)   Metering System identifier;

(b)   BSC Trading Party identifier;

(c)   Settlement Period(s); and

(d)   Exception description and related validation rule;

19.3.   provide standard aggregation reports of Interconnector Meter Flow volume, BM Unit aggregated Meter volumes and GSP Group Take to the appropriate BSC Trading Party;

19.4.   forward the Meter period data for all Metering Systems at GSPs and at points of connection between two Distribution Systems, to the Nominated LDSOs[1], where required;

19.5.   forward the Meter period data for all Metering Systems at GSPs, Metering systems at Transmission System Boundary Points (TSBPs) and at points of connection between two Distribution Systems, to NGC where required;

19.6   provide performance reports on the meter operation, data collection and data aggregation functions to BSCCo.

19.7   support the Technical Assurance Agent (TAA) by:

(a)   submitting an electronic list of all Metering system IDs registered in the Central Meter Registration Service (CMRS), together with associated information to BSCCo. The lists shall be provided four times a year on dates agreed with the BSCCo. The information will be forwarded to the TAA to initiate the sample selection process.

(b)   providing the TAA with Meter Technical Details for each requested Metering System ID.

(c)   supporting the TAA in a comparison of the metered energy data for one half hour recorded at the time of the Inspection Visit with the consumption data held by the CDCA for that same half hour period; and

(d)   supporting the TAA by making further consumption data available for the investigation of any non-compliance.

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[1] The Nominated LDSO is the LDSO who has obligations to submit the GSP Group Metered Volume Aggregation Rules.

19.8 Forward all Metered Volumes for Credit Qualifying BM Units[2] which are not Supplier BM Units that have been received by the CDCA for each Settlement Period to the ECVAA, in accordance with Appendix B.

19.9 Forward any estimated Demand Disconnection Volumes to the SAA for use in the next available Settlement Run.

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[2] A BM Unit is a Credit Qualifying BM Unit if it is not an Interconnector BM Unit, and where either the Production /Consumption flag is Production, or it is an Exempt Export BM Unit, or if it has been assigned BM Unit Credit Qualifying Status by the Panel, in accordance with Section K 3.7 of the BSC.

20.   METERING SYSTEM COMMUNICATION LINKS

The CDCA shall:-

20.1   be responsible, in conjunction with the relevant MOA, for the administration of all communication links with Metering Systems after the communication links have been procured and installed by the Registrant;

20.2   in the event of any fault or failure of any communication link or any error or omission in collected data or all necessary data not being available from Outstations collect or procure the collection of such data by manual on-site interrogation;

20.3   comply (without charge to the Registrant) with any reasonable request by the Registrant to provide access to Communications Equipment to the Registrant and to other persons nominated by the Registrant for the purposes of retrieving metering data.

21.   MARKET DATA OBLIGATIONS

The CDCA shall:-

21.1.   receive such market related data as necessary to enable the CDCA to carry out its obligations under this Service Description and, on successful validation of the data received, input the data into its systems. Market related data shall include, but shall not be limited to, the data listed below:-

(a)   Settlement Calendar, received from the SAA;

(b)   Qualified MOAs, received from the CRA;

21.2.   where the CDCA, for whatever reason(s), is unable to validate or input the data received into its systems the CDCA, report all facts to BSCCo;

21.3   only input into its systems market data that is received from authorised sources.

22.   METER VOLUME AGGREGATION AND PROCESSING

The CDCA shall:-

22.1.   carry out Meter volume Aggregation as defined in this Service Description using the Aggregation Rules received from the relevant BSC Trading Party;

22.2.   receive, from the BSC Trading Party, the following information in support of Aggregation Rules:

(a)   Metering System identifier;

(b)   Aggregation Rule(s) for each of BM Unit, GSP, GSP Group and Interconnector;

(c)   Other information, as may be required, to support the Aggregation Rules. This may include, but shall not be limited to the following:-

          (i)   network diagrams;

          (ii)   NGC connection agreement;

          (iii)   installation documentation;

    (d)   Aggregation Rules for GSP Group Take are calculated and submitted by the CDCA after being agreed by the appointed LDSO;

22.3.   validate all Aggregation Rules received from the relevant BSC Trading Party pursuant to Section R 3.4 of the Code;

22.4.   undertake a site visit, where necessary, in order to verify the validity of the Aggregation Rules;

22.5.   aggregate the collected or estimated metered data pursuant to Section R 5.4 of the Code;

22.6   Not used

22.7   Not used

22.8   Not used

22.9.   in determining the BM Unit volumes for Embedded Generation and Embedded Demand, apply the relevant Line Loss Factors to the Boundary Point volumes for each Settlement Period;

22.10.   in respect of GSP Group Take, aggregate all Metering System energy volumes relating to that GSP Group to produce a GSP Group Take for each Settlement Period;

22.11.   adjust the GSP Group Take for Distribution System Connection Points, any Embedded Generation or Embedded Demand registered with the CRA, Direct Connected Consumer Demand and External Interconnected Demand;

22.12.   ensure that, where the aggregation of data contains a value which has previously been estimated, the flag assigned at the time of estimation remains with the aggregated volume data throughout Settlement;

22.13   re-run its processes, where metered data has changed after a Settlement Run, to enable the SAA to include the revised metered data, for the periods affected, in subsequent reconciliation runs.

22.14   Validation Rules for Transfer of Registration from SMRS to CMRS and vice versa

        The validation carried out by the CDCA should ensure that:-

22.14.1 For Registration transfers from SMRS to CMRS:-

    (a)   Aggregation Rules have been registered for the BM Units;

    (b)   BM Units are correctly associated with the Metering Systems by the Aggregation Rules.

22.14.2   For Registration transfers from CMRS to SMRS:-

   (a)   BM Units are correctly associated with the Metering Systems by the Aggregation Rules.

22.14.3   use the latest available Metered Data, Line Loss Factors, Aggregation Rules, Registration Data and Meter Technical Details.

22.15   perform a Volume Allocation Run in respect of CVA (a "Credit Cover Volume Allocation Run") in accordance with Section U 2.3.2 of the BSC, for the purposes of providing the ECVAA with Metered Volume Data to be used in the calculation of the Credit Cover arrangements.

23.   METER VOLUME DATA TRANSFER

   The CDCA shall:

23.1.1   transfer Meter volume data, in order to meet Settlement timescales, in accordance with the requirements and timescales specified in Appendix B.

23.1.2   respond to any request from the SVAA in respect of data missing from the GSP Group Take.

24.   TRANSFER OF REGISTRATION OF METERING SYSTEMS BETWEEN CMRS AND SMRS

   The CDCA shall:-

   For a Registration transfer from SMRS to CMRS:-

   (a)   Receive notification of proposed transfer from new Registrant including:

   - Details of registrant;

   - Details of MSIDs to be transferred;

   - Schematic diagram;

   - Registration Effective From Date in CMRS;

   (b)   Receive Aggregation Rules from the new Registrant;

   (c)   Submit Aggregation Rules to the LDSO and BSCCo;

   (d)   Receive Meter Technical Details from MOA or Registrant;

   (e)   Submit Meter Technical Details to the LDSO and BSCCo;

   (f)   Organise a Proving Test with the MOA;

   (g)   Validate Registration transfer using the validation rules in 22.14 'Validation Rules for Transfer of Registration from SMRS to CMRS and vice versa' and inform BSCCo as to whether or not the transfer is valid;

(h)   On receipt of notification of Registration transfer approval or rejection from BSCCo:

- notifying of transfer rejection, terminate the process and do not enter data into system; or

- notifying of transfer approval and confirmed Registration Effective From Date (REFD), update records by entering all data received regarding the registration transfer including confirmed REFD and confirm to BSCCo that this update has taken place;

(i)   Revise GSP Group Aggregation Rules;

(j)   If LDSO notifies discrepancies in the GSP Group Aggregation Rules then resolve, update the GSP Group Aggregation Rules and send to the LDSO and the BSCCo;

(k)   Confirm with BSCCo that registration transfer is successfully completed;

(l)   Perform Proving Test with the MOA and inform BSCCo that this has occurred;

(m)   Send initial Meter reading to New CVA Registrant and old HHDC, if requested;

(n)   Confirm to BSCCo that the Transfer has been successfully completed and realistic values are being obtained.

For a Registration transfer from CMRS to SMRS:-

(a)   Receive notification of proposed transfer from BSCCo including:

- Details of registrant;

- Details of MSIDs to be transferred;

- Schematic diagram;

- Registration Effective To Date in CMRS;

(b)   Validate Registration transfer using the validation rules in 22.14 'Validation Rules for Transfer of Registration from SMRS to CMRS and vice versa' and inform BSCCo as to whether or not the transfer is valid;

(c)   Revise GSP Group Aggregation Rules;

(d)   Send the revised GSP Group Aggregation Rules to the LDSO and BSCCo;

(e)   On receipt of notification of Registration transfer approval or rejection from BSCCo:

- notifying of transfer rejection, terminate the process and do not enter data into system; or

- notifying of transfer approval and confirmed Registration Effective From Date (REFD), update records by entering all data received regarding the registration transfer including confirmed Registration Effective To Date (which is **1 calendar day** before the confirmed REFD) and confirm to BSCCo that this update has taken place;

(f)   If LDSO notifies discrepancies in the GSP Group Aggregation Rules then resolve, update the GSP Group Aggregation Rules and send to the PDSO and BSCCo;

(g)   Confirm with BSCCo and old CVA Registrant that the de-registration of the Metering System is complete in CMRS.

25   TRADING DISPUTE

25.1   The CDCA shall support the Trading Disputes process as agreed with the Client such that Settlement Data shall be retained:

(a)   up to at least 28 months after the relevant Settlement Day for use in a Settlement Run; and

(b)   thereafter, until 40 months after the relevant Settlement Day, in a form that may be retrieved, if requested, within 10 Business days, for use in an Extra-Settlement Determination.

26   SUPPORT DERIVATION OF TLF

26.1   The CDCA shall:

(a)   receive Load Periods and Sample Settlement Periods from BSCCo; and

(b)   provide Metered Volume data to the TLFA in respect of these Sample Settlement Periods by 05 November following the Reference Year to which they relate.

26.2   The CDCA shall support BSCCo on request in the establishment and maintenance, and support for queries and disputes on the network mapping statement.

APPENDIX A – INPUT/OUTPUT DATAFLOWS

A1 - CDCA Input Dataflows

Input Flow Description	Flow Received from
Meter Technical Details	MOA or Registrant
Registered Meter data	CRA
BSC Party registration of aggregation rules	Registrant
Meter readings of raw Metering System volumes	Physical Metering System
Physical Meter reading for MAR	Physical Metering System
BSC Party estimation confirmation	Registrant
Line Loss Factors/Generation scaling factors	LDSO
Metering System faults	MOA
Confirmation of Metering System Proving Test	MOA
Metering System Technical Assurance data	TAA
General communication	MOA/TAA
Settlement Calendar	SAA
Load Periods and Sample Settlement Periods	BSCCo
Demand Control Event details	BMRA
Demand Disconnection details	Transmission Company LDSO
Estimated BM Unit Demand Disconnection Volumes	BSCCo

A2 - CDCA Output Dataflows

Output Flow Description	Flow Sent to
Meter reports	Registrant (including LDSOs)
Meter reports	SAA
Aggregation reports for Meters	Registrant
MAR report	MOA
	Registrant
Interconnector Metered Flow	SAA
BM Unit Metered Volume	SAA
	SO
	ECVAA
Aggregated BM Unit Demand Disconnection Volume	SAA
GSP Group Take	SVAA
	SAA
	SO
Estimation Data	Registrant
Metering System Proving Test data	MOA
Meter aggregation rules report	Registrant
Performance reports	BSCCo
Meter protocol update	MOA
Meter reports	SO
Exception reports	Registrant
Meter readings of raw Metering System volumes	Registrant
General communication	MOA/TAA
Metering system Technical Assurance data	TAA
Meter Status Report	Registrant (including LDSOs)
	MOA
Meter Technical Details Report	Registrant (including LDSOs) / MOA / System Operator

Metered Volume data for Sample Settlement Periods	TLFA
MOA Proving Tests Report	BSCCo
MOA Fault Resolution Report	BSCCo

APPENDIX B – TIMESCALES AND CONTENT FOR THE TRANSFER OF METER VOLUME DATA

The CDCA shall transfer Meter volume data in accordance with table below.

Timescale	From	To	Information Required	Expected Content
Settlement Day + 1	CDCA	Relevant BSC Trading Party	Meter readings of raw Metering System volumes	Raw Meter readings.
Settlement Day + 1, Settlement Day + 3, and Settlement Day + 14, or as appropriate to comply with the Payment Calendar and the Settlement Calendar	CDCA	SAA	Aggregated Interconnector Meter Flow volumes	• Interconnector identifier; • Settlement Day; • Settlement Periods (1-46), (1-48), (1-50); • Energy volume reading (MWh); • Estimation indicator (Y/N); and • Revision indicator (Y/N); • Import/Export indicator.
			Aggregated BM Unit Metered Volumes Aggregated BM Unit Demand Disconnection Volumes (if appropriate)	• BM Unit identifier; • Settlement Day; • Settlement Periods (1-46), (1-48), (1-50); • Energy volume reading (MWh); • Estimation indicator (Y/N; • Revision indicator (Y/N); • Import/Export indicator.

Timescale	From	To	Information Required	Expected Content
			Aggregated GSP Group Take	• GSP Group identifier; • Settlement Day; • Settlement Periods (1-46), (1-48), (1-50); • Energy volume reading (MWh); • Estimation indicator (Y/N); and • Revision indicator (Y/N). • Import/Export indicator
Settlement Day + 1 and Settlement Day + 14, or as appropriate to comply with the Payment Calendar and the Settlement Calendar	CDCA	The relevant BSC Trading Party	Aggregated Interconnector Meter flow volumes	• Interconnector identifier; • Settlement Day; • Settlement Periods (1-46), (1-48), (1-50); • Energy Volume Reading (MWh); • Estimation Indicator (Y/N); and • Revision indicator (Y/N). • Import/Export indicator

Timescale	From	To	Information Required	Expected Content
			Aggregated BM Unit Metered Volumes Aggregated BM Unit Demand Disconnection Volumes (if appropriate)	• BM Unit identifier; • Settlement Day; • Settlement Periods (1-46), (1-48), (1-50); • Energy volume reading (MWh); • Estimation indicator (Y/N; • Revision indicator (Y/N); • Import/Export indicator
			Aggregated GSP Group Take	• GSP Group identifier; • Settlement Day; • Settlement Periods (1-46), (1-48), (1-50); • Energy volume reading (MWh); • Estimation indicator (Y/N); and • Revision indicator (Y/N). • Import/Export indicator
Settlement Day + 3 and Settlement Day + 14, or as appropriate to comply with the Payment Calendar and the Settlement Calendar	CDCA	NGC	Information required to support TUoS charging	To be specified

Timescale	From	To	Information Required	Expected Content
Settlement Day + 3 and Settlement Day + 14, or as appropriate to comply with the Payment Calendar and the Settlement Calendar	CDCA	SVAA	GSP Group Take	• GSP Group identifier; • Settlement Day; • Settlement Periods (1-46), (1-48), (1-50); • Energy volume reading (MWh); • Estimation indicator (Y/N); and • Revision indicator (Y/N). • Import/Export indicator.
Settlement Day + 2	CDCA	ECVAA	Metered Volume Data for Credit Qualifying BM Units which are not Supplier BM Units	• BM Unit identifier; • Settlement Day; • Settlement Periods (1-46), (1-48), (1-50); • Energy volume reading (MWh);