Redlined BSCP502 text for CP1474 'Updating the CoMC processes to facilitate the elective HH Settlement of SMETS Meters'

This CP makes changes to BSCP502 'Half Hourly Data Collection for SVA Metering Systems Registered in SMRS'.

We have redlined these changes against Version 26.0.

These redlined changes will be incorporated into the most recent baselined version of BSCP502 at the time of go-live.

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Balancing and Settlement Code

BSC PROCEDURE

HALF HOURLY DATA COLLECTION FOR SVA METERING SYSTEMS REGISTERED IN SMRS

BSCP502

~~Version 26.0~~

Date: ~~30 June 2016~~

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BSC Procedure 502

relating to

Half Hourly Data Collection for SVA Metering Systems Registered in SMRS

1. Reference is made to the Balancing and Settlement Code for the Electricity Industry in Great Britain, and in particular, to the definition of "BSC Procedure".

2. This is BSC Procedure 502, ~~Version 26.0~~ relating to Half Hourly Data Collection for SVA Metering Systems registered in SMRS.

3. This BSC Procedure is effective from ~~30 June 2016~~.

4. This BSC Procedure has been approved by the Panel.

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AMENDMENT RECORD

Version	Date	Description of Changes	Changes Included	Mods/ Panel/ Committee Refs
2.0	Code Effective Date	Approved for use by the Panel.		
3.0	Code Effective Date	Version alignment changes from AP502 (NCR329) and changes for transfers between CMRS and SMRS embodied (NCR114).	NCR114, NCR329	
4.0	04/03/02	CP691 relating to HH proving and validation embodied.	CP691	SVG/09/117
5.0	03/02/03	SVA Documentation Batch Release; CP772 and CP838.	CPs 774, 762, 779, 801, 805, 810, 772, 838	SVG/21/263, SVG/22/274, SVG/22/275
6.0	29/05/03	SVA May Release.	CP873, CP899	SVG/23/291, SVG/25/342
7.0	01/08/03	Updated for Modification P62.	P62	SVG/29/390
8.0	28/08/03	August 03 SVA Document Batch Release.	CPs 854, 912	SVG/29/389 SVG/30/397
9.0	04/11/03	SVA November 03 Release	P107	SVG/33/442
10.0	04/11/04	SVA November 04 Release	CPs 955, 1025, 1032	SVG/43/003
11.0	23/02/05	SVA February 05 Release and BETTA 6.3	CPs 982, 1034, 1042, 1044, 1045, 1048, 1091and BETTA 6.3	SVG48/004
12.0	03/11/05	SVA November 05 Release	CPs, 1068, 1072, 1095, 1139 and P176	SVG56/004
13.0	29/06/06	June 06 Release	CP1143, CP1144, CP1145, CP1147	SVG64/02
14.0	28/06/07	June 07 Release Updated terminology in preparation for P197 Release	CP1172 (part) CP1176 (part) CP1173 P197	ISG66/06 SVG66/04 ISG68/02 SVG67/17 SVG70/03
15.0	01/11/07	November 07 Release	CP1183 v2.0 and CP1200	SVG74/03
16.0	28/02/08	February 08 Release	CP1166 v.3.0 CP1213 CP1214	SVG79/02 SVG81/01
17.0	26/06/08	June 08 Release	CP1192 v2.0	SVG81/01

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Version	Date	Description of Changes	Changes Included	Mods/ Panel/ Committee Refs
18.0	26/02/08	February 09 Release	CP1261	ISG93/02
19.0	25/02/10	February 10 Release	CP1299 CP1302 CP1303	SVG102/01 SVG103/02 SVG103/02
20.0	04/11/10	November 10 Release	CP1338	SVG116/05
21.0	03/11/11	November 11 Release	P253	SVG127/13
22.0	29/11/12	November 12 Release	CP1377	SVG140/04
23.0	13/06/14	13 June 2014	P299	P224/06
24.0	25/06/15	25 June 2015	CP1409 CP1411 CP1429	SVG160/06 SVG160/08 SVG170/03
25.0	05/11/15	5 November 2015	P300 CP1431 CP1432 CP1440 CP1439 CP1444 P305	P228/06 SVG171/02 SVG171/03 SVG173/05 SVG174/04 SVG176/05 SVG176/03
26.0	30/06/16	30 June 2016	CP1452	SVG180/05

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[1] The section numbering used in this BSC Procedure must not change in order to keep this document in line with the referencing used in the MRA and other BSCPs listed in Section 1.5.

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1. Introduction

1.1 Purpose and Scope of the Procedure

This BSC Procedure defines the processes that the Half Hourly Data Collector (HHDC) shall use to carry out the work for data collection (including data retrieval, estimation and data processing) for SVA Metering Systems with half hourly (HH) Metering Equipment (referred to in the rest of this document as "HH SVA Metering Systems") operating within the Supplier Volume Allocation (SVA) arrangements.

It describes the key interfaces and timetables for sending appropriate HH SVA Metering System (MS) data values to the appropriate HH Data Aggregator (HHDA) on behalf of the relevant Supplier registered in Supplier Meter Registration Service (SMRS).

HH Meter readings shall be derived from HH MS with each MS being assigned a unique Metering System Identifier (MSID).

This BSC Procedure, in respect of Unmetered Supplies, covers the validation rules and data estimation for half hourly data; all other requirements, including data collection, are covered in BSCP520.

The purpose of this BSC Procedure is to ensure that the data retrieval and data processing work of the HHDC is carried out in an orderly and timely manner.

This BSC Procedure focuses on the interfaces between the HHDC and other agencies seen from the perspective of the HHDC.

This BSC Procedure should also be used in conjunction with BSCP68 for the Transfer of Registrations of Third Party Generator / Generating Plant between SMRS and CMRS and vice versa.

This BSC Procedure contains guidance on the completion of a 'Complex Site Supplementary Information Form' for the D0268 'Half Hourly Meter Technical Details' data flow where the HH MS is deemed to be at a Complex Site.

This BSC Procedure also explains how HHDCs must estimate Demand Disconnection Volumes as and when required following a Demand Control Event.

1.2 Main Users of Procedure and their Responsibilities

This BSC Procedure should be used by Suppliers and their agent(s) (including Meter Operator Agents (MOAs), HHDAs and HHDCs), the SVA Agent, and by each Licensed Distribution System Operator (LDSO) and the Transfer Co-ordinator.

The HHDC shall perform the responsibilities and obligations set out in the Party Agent Service Line PSL100 and this BSC Procedure for a SVA MS for all Settlement Days for which the HHDC is appointed by the Supplier in a SMRS.

The HHDC shall use Qualified systems and processes so approved in accordance with BSCP537 in carrying out the collection of data from SVA Metering Equipment.

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The HHDC shall ensure that its systems and processes so approved in accordance with BSCP537 used for the purposes of collecting data have protocols for every Meter type (including an Equivalent Meter) for which it is responsible.

The HHDC's system shall be set in accordance with Co-ordinated Universal Time (UTC) at least once every day.

On change of HHDC to a new HHDC or a new NHHDC and irrespective of whether there is a Change of Measurement Class (CoMC), the HHDC shall retain responsibility for data collected for all Settlement Days that he was appointed by the Supplier in SMRS.

The HHDC shall send active energy data to the HHDA in kWh and in clocktime.

Where the HHDC has not received data in sufficient time to enable it to fulfil its obligations as HHDC, it shall request from the Supplier or its agent that the data that has not been received be supplied forthwith.

The HHDC shall prepare and maintain plans that will enable the Supplier's obligations under the Code to continue to be met notwithstanding the expiry or termination of the HHDC's appointment as the HHDC. The plans, which the HHDC undertakes to implement on any such expiry or termination, will include the transfer of data and other information to an incoming HHDC appointed by the Supplier in accordance with sections 3.2.4 and 3.2.7 of this BSCP.

On expiry or termination of the HHDC's appointment as HHDC in respect of a SVA MS the outgoing HHDC shall continue to retain data and support the Trading Disputes process, as specified in 10.2 and 10.3 of PSL100, for all Settlement Days that he was appointed by the Associated Supplier in SMRS.

The HHDC shall maintain and use records (as updated from time to time) of the Meter Technical Details (MTD), including energisation status received from the MOA (or MA for an Equivalent Meter) for each meter and communication system comprising each SVA MS for which it is responsible, together with access and site location details in respect of all such SVA MSs.

The HHDC shall have the capability to collect and record all Meter Period Value data for Reactive Power (with associated alarms), cumulative readings and maximum demand readings by Meter register that are required for the LDSO, and shall use this capability to collect (and report to the Supplier and LDSO) Meter Period Value data for Reactive Power for all those SVA MS for which it is responsible and for which the Meter Technical Details indicate that the Meter is configured to record such data.

The HHDC's system shall be capable of receiving, processing and transmitting all required data accurately and within the timescales agreed by the Panel, Suppliers and LDSOs, and shall be capable of supporting metered data (processed and unprocessed) and associated standing data for all SVA MSIDs for which the HHDC is appointed (with allowance for growth) for the retention periods specified.

The HHDC must only provide Suppliers with data relating to SVA MSs against which the Suppliers are contracted with the HHDC, and must ensure that LDSOs are

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not provided with data relating to SVA MSs supplied by the distribution networks of other LDSOs.

Where the same Metering Equipment (ME) is being utilised for the measurement of the Import and/or Export Active Energy for more than one MSID at a site, the Supplier(s) shall ensure that the same MOA is appointed for all of the MSIDs involved to comply with the requirements of the Code. Similarly, where a common Outstation is being utilised for the Import and/or Export Active Energy for more than one MSID, the Supplier(s) shall ensure that the same HHDC is appointed for all of the MSIDs involved. These obligations shall be fulfilled by mutual agreement between the Suppliers involved, except in the case of there being an Import Supplier and an Export Supplier where the obligation rests with the Export Supplier to appoint the same agent(s) as the Import Supplier.

When a Demand Disconnection occurs as part of a Demand Control Event, the HHDC must provide Data Aggregators with a Settlement Period level estimate of the Demand Disconnection Volume for each impacted MSID where they are the appointed DC.

The SVAA will be managing the Market Domain Data in addition to performing the Supplier Volume Allocation role, and therefore SVAA is the Market Domain Data Manager (MDDM).

1.3 Use of the Procedure

The remaining sections in this document are:

Section 2 - This section is no longer in use.

Section 3 - Interface and Timetable Information: this section defines in more detail the requirements of each business process. In addition, there may be references to 'D' (Data Transfer Catalogue) and 'P' (BSC SVA Data Catalogue) data flows in the 'Information Required' column.

Section 4 - Appendices: this section contains supporting information.

1.4 Balancing and Settlement Code Provision

This BSC Procedure has been produced in accordance with the provisions of the Balancing and Settlement Code (BSC). In the event of an inconsistency between the provisions of this BSC Procedure and the Code, the provisions of the Code shall prevail.

The requirements of HHDCs under the Code can be found in BSC Sections J 'Party Agents' and S 'Supplier Volume Allocation'. An overview of these requirements is as follows:

The functions of a HHDC are defined in BSC Section J as follows: to retrieve, validate and process metering data from Half Hourly Meters and Equivalent Meters in respect of SVA Metering Equipment in accordance with the provisions of Section S.

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HHDCs are subject to the Qualification Requirements of Section J.

The principal functions of a HHDC are defined in S2.3.1 as:

(a) to collect metered data;

(b) to validate data and provide reports;

(c) to enter validated metered data into the relevant data collection system;

(d) to maintain relevant standing data;

(e) to undertake Meter Advance Reconciliation to reconcile half hourly energy values with meter advances;

(f) to sum register level data to produce SVA Metering System level data;

(g) to provide SVA Metering System level data to the relevant Half Hourly Data Aggregator; and

(h) to provide validated metered data and SVA Metering System reports to the relevant Supplier and the relevant Distribution System Operator.

1.5 Associated BSC Procedures

BSCP01	Overview of Trading Arrangements
BSCP11	Trading Disputes
BSCP32	Metering Dispensation
BSCP68	Transfer of Registration between CMRS and SMRS
BSCP503	Half Hourly Data Aggregation for Metering Systems Registered in SMRS
BSCP504	Non-Half Hourly Data Collector for SVA Metering Systems Registered in SMRS
BSCP508	Supplier Volume and Allocation Agent
BSCP515	Licensed Distribution
BSCP514	SVA Meter Operations for Metering Systems Registered in SMRS
BSCP520	Unmetered Supplies Registered in SMRS
BSCP537	Qualification Process for SVA Parties, SVA Party Agents and CVA MOAs
BSCP550	Shared SVA Metering Arrangement of Half Hourly Import and Export Active Energy

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1.6 Acronyms and Definitions

1.6.1 Acronyms

The terms used in this BSC Procedure are defined as follows.

BSC	Balancing and Settlement Code
BSCP	BSC Procedure
CMRS	Central Meter Registration Service
CoMC	Change of Measurement Class
Complex Site	See Appendix 4.9
CoP	Code of Practice
CoS	Change of Supplier
CT	Current Transformer
DC	Data Collector
DCC	Data Communications Company
DSBR	Demand Side Balancing Reserve
DTN	Data Transfer Network
EAC	Estimated Annual Consumption
EM	Equivalent Meter
HH	Half Hourly
HHDA	Half Hourly Data Aggregator
HHDC	Half Hourly Data Collector
HHU	Hand Held Unit
Id	Identifier
kvarh	kilovoltamperes reactive hour
kWh	Kilowatt hour
LDSO	Licensed Distribution System Operator
LLF	Line Loss Factor
MAR	Meter Advance Reconciliation
MDD	Market Domain Data
MDDM	Market Domain Data Manager
MOA[2]	Meter Operator Agent
MS	Metering System
MSID	Metering System Identifier
MTD	Meter Technical Details
NHH	Non-Half Hourly
NHHDC	Non-Half Hourly Data Collector

[2] MOA refers to the HH MOA unless otherwise stated.

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Ref	Reference
SFIC	Systems Fault Information Centre
SMETS	Smart Metering Equipment Technical Specifications
SMRS	Supplier Meter Registration System
SSD	Supply Start Date
SVAA	Supplier Volume Allocation Agent
UTC	Co-ordinated Universal Time
VT	Voltage Transformer
WD	Working Day

1.6.2 Definitions

Full definitions of the above acronyms are, where appropriate, included in the Balancing and Settlement Code.

'Active Power MSID' is an MSID with a Measurement Quantity ID equal to Active Import (AI) or Active Export (AE).

'HHDC-serviced Metering System' is a Metering System where the HHDC is responsible for collecting data directly from the Metering System.

'Manually Intervened (with regard to proving tests)' is defined under Appendix 4.6 'Proving of Half Hourly Metering Systems'.

'Complex Site' is defined under Appendix 4.9 'Guide to Complex Sites'.

'Equivalent Meter' is defined in BSC Section U and BSCP520. It is the hardware and software used to calculate half hourly consumption for an Unmetered Supply.

'Supplier-serviced Metering System' is a Metering System where the Supplier obtains data from a SMETS compliant Meter, either directly or using a service provider.

2 This Section is no longer in use.

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3 Interface and Timetable Information

3.1 Market Data Activities.

3.1.1 SVAA sends Market Domain Data.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.1.1	If required.	Request MDD.	HHDC.	MDDM.	HHDC Id.	Electronic or other method, as agreed
3.1.1.2	When published by SVAA or within 1 WD of request from HHDC.	Send MDD.	SVAA.	HHDC[3].	D0269 Market Domain Data Complete Set. D0270 Market Domain Data Incremental Set. P0186 Half Hourly Default EAC. The HHDC shall record and use such MDD as is considered appropriate by the Panel (having regard to the HHDC's functions) and shall, in particular, use only MDD for those items in relation to which there is a MDD entry[4]	Electronic or other method, as agreed. Manual Process.
3.1.1.3	Within 4 working hours of receipt of MDD.	Send acknowledgement that data has been received.	HHDC.	MDDM.	P0024 Acknowledgement.	Electronic or other method, as agreed.
3.1.1.4	If file not readable & / or not complete.	Send notification & await receipt of MDD.	HHDC.	MDDM.	P0035 Invalid Data.	Electronic or other method, as agreed.

[3] On receipt of any new MDD, the HHDC shall ensure that all MDD affecting the accuracy of Settlement which is manually entered by the HHDC shall be validated against the source data supplied by the SVAA to the HHDC by means of double entry keying before the data is recorded by the HHDC and used in performing its functions.

[4] In the event of any dispute as to whether an item of MDD is appropriate or, as the case may be, affects the accuracy of Settlement, the decision of the Panel shall be conclusive.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.1.5	After receiving notification.	Send corrected MDD. Return to 3.1.1.2.	SVAA.	HHDC.	Refer to 3.1.1.2 for data flows.	Electronic or other method, as agreed.
3.1.1.6	As soon as possible after data in correct format.	Update records.	HHDC[4]		The HHDC shall record and use such MDD as is considered appropriate by the Panel (having regard to the HHDC's functions) and shall, in particular, use only MDD for those items in relation to which there is a MDD entry [5]	Internal Process.

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3.2 Registration Activities.

3.2.1 New connection or Registration Transfers from CMRS to SMRS[5] - metered supply~~.~~

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.1.1	On appointment of new HHDC.	Send appointment details for MS, including start date and IDs of HHDA and MOA. The sending of the D0302 is optional for Supplier-serviced Metering Systems.	Supplier.	HHDC.	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms[8]. D0289 Notification of MC/EAC/PC [6]. D0302 Notification of Customer Details.	Electronic or other method, as agreed.
3.2.1.2	Upon receipt of SVA MS details.	Record SVA MS details. Validate SVA MS details received from the Supplier against MDD received from the SVAA.	HHDC.		Sufficient details of HHDC's appointment in respect of a SVA MS to enable the HHDC to perform its HHDC functions. These details shall include the relevant SVA MSID and the Identifiers for the MOA and, as the case may be, the HHDA, the LDSO and the applicable GSP Group. The details shall also include the Settlement Days for which the HHDC and HHDA are appointed.	Internal Process.
For HHDC-serviced Metering Systems						
3.2.1.3	Within 5 WD of the installation and commissioning of MS.	Send initial Meter register readings Send MTD and Energisation Status.	MOA[7].	Supplier / HHDC / LDSO HHDC	D0010 Meter Readings. D0268 Half Hourly Meter Technical Details. If site is complex, send Complex Site Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.

[5] If a Registration Transfer from CMRS, proceed in accordance with BSCP68, Section 3.2
[6] Refer to Appendix 4.2 for rules on when the EAC should be used by the HHDC for data estimation purposes.
[7] The MOA shall provide the energisation status at MS or feeder level. If the energisation status is provided at feeder level, the HHDC shall assume that the MS is de-energised if all feeders are de-energised, and energised if one or more feeders is energised

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.1.4	On agreement of reading schedule with Supplier.	Send Meter reading schedule.	HHDC.	Supplier, LDSO	D0012 Confirmation of the Inclusion of the Metering Point in the Reading Schedules.	Electronic or other method, as agreed.
3.2.1.5	From HHDC appointment start date.	Collect HH Metered Data.	HHDC.		Refer to Section 3.4.1.	Internal Process.
3.2.1.6	In accordance with timescales in Appendix 4.6.	Prove MS.	MOA.	HHDC.	Refer to Appendix 4.6.	Electronic or other method, as agreed.
For Supplier-serviced Metering Systems						
3.2.1.7	From HHDC appointment start date.	Collect HH Metered Data.	Supplier.		Refer to Section 3.4.	Electronic or other method, as agreed.

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3.2.3 Change of Supplier for an existing SVA Metering System (No Change of MOA, HHDC or HHDA).

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.3.1	On appointment of HHDC.	Send appointment details of MS, including start date and IDs of HHDA and MOA.	New Supplier.	HHDC.	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms[8]. D0289 Notification of MC/EAC/PC[6~~7~~6]~~.~~	Electronic or other method, as agreed.
3.2.3.2	Upon receipt of SVA MS details.	Record SVA MS details. Validate SVA MS details received from the Supplier against MDD received from the SVAA.	HHDC.		Sufficient details of HHDC's appointment in respect of a SVA MS to enable the HHDC to perform its HHDC functions. These details shall include the relevant SVA MSID and the Identifiers for the MOA and, as the case may be, the HHDA, the LDSO and the applicable GSP Group. The details shall also include the Settlement Days for which the HHDC and HHDA are appointed.	Internal Process.
3.2.3.3	On agreement of reading schedule with new Supplier.	Send Meter reading schedule.	HHDC.	New Supplier, LDSO	D0012 Confirmation of the Inclusion of the Metering Point in the Reading Schedules Sending of the D0012 is optional for Supplier-serviced Metering Systems.	Electronic or other method, as agreed.
3.2.3.4	From HHDC appointment start date for new Supplier.	Collect HH Metered Data for new Supplier including an initial Meter reading.	HHDC/ New Supplier.		Refer to Section 3.4.~~1.~~	Internal Process.
3.2.3.5	On termination of appointment of HHDC.	Send appointment termination date for MS.	Old Supplier.	HHDC.	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other method, as agreed.

[8] The D0155 shall be used to inform the HHDC of the Supplier read schedule for SMETS Meters by notifying the Retrieval Method of 'S' and an appropriate value of Regular Reading Cycle.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.3.6	For HHDC-serviced Metering Systems. Within 10 WD after end of HHDC appointment to old Supplier.	Complete HH Metered Data collection activities for the old Supplier.	HHDC.		Refer to Section 3.4.1.	Internal Process.

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3.2.4 Change of HHDC for an existing SVA Metering System.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.4.1	On appointment of new HHDC.	Send appointment details of MS, including start date and IDs of relevant HHDAs, MOA and old HHDC. The sending of the D0302 is optional for Supplier-serviced Metering Systems.	Supplier.	New HHDC.	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms[8] ~~.~~ D0289 Notification of MC/EAC/PC[6]~~76~~ ~~.~~ D0302 Notification of Customer Details.	Electronic or other method, as agreed.
3.2.4.2	Upon receipt of SVA MS details.	Record SVA MS details. Validate SVA MS details received from the Supplier against MDD received from the SVAA and send the D0011 to the Supplier.	New HHDC.	Supplier	D0011 Agreement of Contractual terms. Sufficient details of HHDC's appointment in respect of a SVA MS to enable the HHDC to perform its HHDC functions. These details shall include the relevant SVA MSID and the Identifiers for the MOA and, as the case may be, the HHDA, the LDSO and the applicable GSP Group. The details shall also include the Settlement Days for which the HHDC and HHDA are appointed.	Electronic or other method, as agreed.~~Internal Process.~~
3.2.4.3	On appointment of new HHDC.	Send appointment termination date for MS.	Supplier.	Old HHDC.	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other method, as agreed.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
For HHDC-serviced Metering Systems.						
3.2.4.4	Within 5 WD of notification of new HHDC.	Send MTD and details of any current faults.	MOA.	New HHDC.	D0002 Fault Resolution Report or Request for Decision on Further Action. D0268 Half Hourly Meter Technical Details. If site is complex, send Complex Site Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.
3.2.4.5	In accordance with timescales in Appendix 4.6.	Prove MS in accordance with the rules defined in Appendix 4.6.	MOA.	New HHDC.	Refer to Appendix 4.6.	Electronic or other method, as agreed.
3.2.4.6	On agreement of reading schedule with Supplier.	Send Meter reading schedule.	New HHDC.	Supplier, LDSO.	D0012 Confirmation of the Inclusion of the Metering Point in the Reading Schedules	Electronic or other method, as agreed.
3.2.4.7	From HHDC appointment start date.	Collect HH Metered Data, including an initial Meter reading.	New HHDC~~.~~		Refer to Section 3.4.1.	Internal Process.
3.2.4.8	Before Final Reconciliation Volume Allocation Run[9].	Request 14 months of historic HH Metered Data	New HHDC.	Old HHDC.	D0170 Request for SVA Metering System Related Details.	Electronic or other method, as agreed.
3.2.4.9	Within 5 WD of request for historic data.	Send historic HH Metered Data as available.	Old HHDC.	New HHDC.	D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix.	Electronic or other method, as agreed.
3.2.4.10	If required	Request final Meter read	New HHDC	Old HHDC		Letter/Fax/Email
3.2.4.11	Within 5 WD of 3.2.4.10	Send final Meter read	Old HHDC	New HHDC	D0010 Meter Readings	Electronic or other method, as agreed.

[9] The new HHDC should not send the D0170 flow prior to the HHDC Effective From Date on their D0155 'Notification of Meter Operator or Data Collector Appointment and Terms' flow received from their associated Supplier.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.4.12	If there is a separate outstation (or integral outstation that does not provide a cumulative electronic reading) and within 10 WD of the later of the HHDC appointment start date and receipt of Meter Technical Details (unless physical read acquired through site visit within 10 WD of appointment start date); or if required by Supplier.	Request final physical Meter Read	New HHDC	Old HHDC	This reading is required for use in the Meter Advance Reconciliation process - Appendix 4.8 - Meter Advance Reconciliation[10].	Letter/Fax/Email
3.2.4.13	Within 5 WD of 3.2.4.12	Send final physical Meter Read	Old HHDC	New HHDC	D0010 Meter Readings	Electronic or other method, as agreed.
For Supplier-serviced Metering Systems.						
3.2.4.14	From HHDC appointment start date.	Collect HH Metered Data.	Supplier			Internal Process.
3.2.4.15	As required and before Final Reconciliation Volume Allocation Run .	Request 14 months of historic HH Metered Data.	New HHDC.	Old HHDC.	D0170 Request for SVA Metering System Related Details.	Electronic or other method, as agreed.
3.2.4.16	Within 5 WD of request for historic data.	Send historic HH Metered Data as available.	Old HHDC.	New HHDC.	DXXXX Half Hourly Advances for Inclusion in Aggregated Supplier Matrix.	Electronic or other method, as agreed.

[10] This Meter Advance Reconciliation will require historic HH Metered Data from the old HHDC, and the new HHDC shall therefore ensure that step 3.2.4.7 is carried out in time for this data to be received.

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3.2.5 Change of MOA (no change of SVA Metering System).

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.5.1	On appointment of new MOA.	Send ID of new MOA.	Supplier.	HHDC.	D0148 Notification of Change to Other Parties.	Electronic or other method, as agreed.
For HHDC-serviced Metering Systems[11].						
3.2.5.2	Within 5 WD of receipt of MTD from old MOA.	Send MTD to HHDC.	New MOA.	HHDC.	D0268 Half Hourly Meter Technical Details. If site is complex, send Complex Site Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.
3.2.5.3	In accordance with timescales in Appendix 4.6.	Prove MS in accordance with the rules defined in Appendix 4.6	New MOA.	New HHDC.	Refer to Appendix 4.6.	Electronic or other method, as agreed.

3.2.6 Change of HHDA for an existing SVA Metering System.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.6.1	On appointment of new HHDA.	Send start date and ID of the new HHDA for the MS.	Supplier.	HHDC.	D0148 Notification of Change to Other Parties.	Electronic or other method, as agreed.

[11] No further action required for Supplier-serviced Metering Systems

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3.2.7 Concurrent Change of Supplier and HHDC for an existing SVA Metering System.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.7.1	On appointment of new HHDC by new Supplier.	Send appointment details of MS, including start date and IDs of HHDA, MOA and old HHDC.	New Supplier.	New HHDC.	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms[8]~~.~~ D0289 Notification of MC/EAC/PC[6]. D0302 Notification of Customer Details.	Electronic or other method, as agreed.
3.2.7.2	Upon receipt of SVA MS details.	Record SVA MS details. Validate SVA MS details received from the Supplier against MDD received from the SVAA and send D0011to the Supplier.	New HHDC.	New Supplier.	D0011 Agreement of Contractual terms. Sufficient details of HHDC's appointment in respect of a SVA MS to enable the HHDC to perform its HHDC functions. These details shall include the relevant SVA MSID and the Identifiers for the MOA and, as the case may be, the HHDA, the LDSO and the applicable GSP Group. The details shall also include the Settlement Days for which the HHDC and HHDA are appointed.	Electronic or other method, as agreed~~Internal Process~~.
3.2.7.3	On termination of appointment of old HHDC to old Supplier.	Send appointment termination date for MS.	Old Supplier.	Old HHDC.	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other method, as agreed.
For HHDC-serviced Metering Systems.						
3.2.7.4	Within 10 WD after end of old HHDC appointment to old Supplier.	Complete data collection activities for the old Supplier.	Old HHDC.		Refer to Section 3.4.1.	Internal Process.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.7.5	Within 5 WD of 3.2.7.4	Send MTD and details of any current faults.	MOA	New HHDC	D0002 Fault Resolution Report or Request for Decision on Further Action. D0268 Half Hourly Meter Technical Details. If site is complex, send Complex Site Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.
3.2.7.6	In accordance with timescales in Appendix 4.6.	Prove MS.	MOA.	New HHDC.	Refer to Appendix 4.6.	Electronic or other method, as agreed.
3.2.7.7	On agreement of reading schedule between new Supplier and new HHDC.	Send Meter reading schedule.	New HHDC.	Supplier, LDSO	D0012 Confirmation of the Inclusion of the Metering Point in the Reading Schedules.	Electronic or other method, as agreed.
3.2.7.8	From appointment start date of new HHDC to new Supplier.	Collect HH Metered Data for new Supplier including an initial Meter reading.	New HHDC.		Refer to Section 3.4.1.	Internal Process.
3.2.7.9	Before Final Reconciliation Volume Allocation Run[9]	Request 14 months of historic Metered Data	New HHDC.	Old HHDC.	D0170 Request for Metering System Related Details.	Electronic or other method, as agreed.
3.2.7.10	Within 5 WD of request for historic data.	historic HH Metered Data as available.	Old HHDC.	New HHDC.	D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix.	Electronic or other method, as agreed.
3.2.7.11	If required	Request final Meter read	New HHDC	Old HHDC		Letter/Fax/Email.
3.2.7.12	Within 5 WD of 3.2.7.11	Send final Meter read	Old HHDC	New HHDC	D0010 Meter Readings	Electronic or other method, as agreed.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.7.13	If there is a separate outstation (or integral outstation that does not provide a cumulative electronic reading) and within 10 WD of the later of the HHDC appointment start date and receipt of Meter Technical Details (unless physical read acquired through site visit within 10 WD of appointment start date); or if required by Supplier.	Request final physical Meter Read	New HHDC	Old HHDC	This reading is required for use in the Meter Advance Reconciliation process - Appendix 4.8 - Meter Advance Reconciliation[12].	Letter/Fax/Email.
3.2.7.14	Within 5 WD of 3.2.7.13	Send final physical Meter Read	Old HHDC	New HHDC	D0010 Meter Readings	Electronic or other method, as agreed.
For Supplier-serviced Metering Systems.						
3.2.7.15	From HHDC appointment start date.	Collect HH Metered Data.	Supplier.			Internal Process.
3.2.7.16	As required and before Final Reconciliation Volume Allocation Run.	Request 14 months of historic HH Metered Data.	New HHDC.	Old HHDC.	D0170 Request for SVA Metering System Related Details.	Electronic or other method, as agreed.
3.2.7.17	Within 5 WD of request for historic data.	Send historic HH Metered Data as available.	Old HHDC.	New HHDC.	DXXXX Half Hourly Advances for Inclusion in Aggregated Supplier Matrix.	Electronic or other method, as agreed.

[12] This Meter Advance Reconciliation will require historic HH Metered Data from the old HHDC, and the new HHDC shall therefore ensure that step 3.2.4.8 is carried out in time for this data to be received

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3.3 Metering Activities.

3.3.1 Coincident Change of Measurement Class from N~~on-~~H~~alf~~ H~~ourly~~ to H~~alf~~ H~~ourly SVA Metering System, coincident with~~ and ~~c~~Change of Supplier~~, HHDC, HHDA and MOA~~[13]. for HHDC-serviced Metering Systems.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.1.1	Prior to CoMC date change[14] or Within 5 WD of coincident CoS and CoMC change[15].	Send notification of appointment, including start date and associated Agent details.	New Supplier.	HHDC.	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms. D0289 Notification of MC/EAC/PC. D0302 Notification of Customer Details.	Electronic or other method, as agreed.
3.3.1.2	Within 5 WD of change or Within 5 WD of coincident CoS and CoMC change.	Send initial Meter reading(s) with date and time in GMT. Send MTD	HHMOA.	Supplier / HHDC[16] / LDSO. HHDC	D0010 Meter Readings. D0268 Half Hourly Meter Technical Details If site is complex, send Complex Site Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.
3.3.1.3	On agreement of Meter reading schedule with Supplier following 3.3.1.2.	Send Meter reading schedule.	HHDC.	Supplier, LDSO	D0012 Confirmation of the Inclusion of the Metering Point in the Reading Schedules.	Electronic or other method, as agreed.
3.3.1.4	From HHDC appointment start date.	Collect HH Metered Data.	HHDC.		Refer to Section 3.4.1.	Internal Process.
3.3.1.5	In accordance with timescales in Appendix 4.6.	Prove MS.	HHMOA.	HHDC.	Refer to Appendix 4.6.	Electronic or other method, as agreed.

[13] This process can also be used where there is only a CoMC, not a coincident CoS and CoMC.
[14] Where there is a CoMC only, the HHDC shall be appointed from the date of the actual CoMC.
[15] Where there is a coincident CoS and CoMC, the HHDC shall be appointed from the Supply Start Date (SSD).
[16] Meter changes do not normally occur at midnight, therefore the HHDC should estimate consumption (in accordance with Appendix 4.2) from midnight of his appointment date until confirmation of the Meter change is received. To prevent "double counting" of consumption, the HHDC shall use a 'zero' advance between midnight on the SSD and the time of the Meter reading provided by the HHMOA.

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3.3.2 Coincident Change of Measurement Class from H~~alf~~ H~~ourly~~ to N~~on~~ H~~alf HH~~~~ourly SVA Metering System coincident with~~ and ~~c~~Change of Supplier[13]~~, NHHDC, NHHDA and MOA[12][11]~~. for HHDC-serviced HH Metering Systems.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.2.1	Before planned date of change of measurement class.	Send Id of new NHHMOA and request to collect final HH Metered Data.	Current Supplier.	HHDC.	D0005 Instruction on Action.	Electronic or other method, as agreed.
3.3.2.2	Within 3 WD of 3.3.2.1 and before planned date of change of measurement class.	Arrange date by when final HH Metered Data should be collected. (Note that for the day of the change consumption for the half hour periods after the time of the change are set to zero).	HHDC.	NHHMOA.	D0005 Instruction on Action.	Electronic or other method, as agreed.
3.3.2.3	On date and time agreed in 3.3.2.2.	Collect final HH Metered Data.	HHDC.			Internal Process.
3.3.2.4	Immediately following 3.3.2.3.	Confirm final HH Metered Data collection.	HHDC.	NHHMOA.	The MOA will telephone the HHDC when the MOA is on site or is ready to reconfigure the MS remotely. Following the HHDC collecting the data, the HHDC will provide confirmation to the MOA.	Telephone.
3.3.2.5	Within 5 WD of receipt of final Meter register reading.	Send final Meter register reading.	HHMOA.	HHDC / Supplier.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.3.2.6	On termination of appointment of HHDC.	Send appointment termination date for MS.	Current Supplier.	HHDC.	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other method, as agreed.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.2.7	If no Meter register reading received within 10 WD of CoMC and initial reading required[17]	Request initial Meter register reading.	NHHDC	Supplier		Post / Fax / Email
3.3.2.8	Within 10 WD of 3.3.2.7	Send initial Meter register reading.	Supplier	NHHDC	D0010 Meter Readings	Electronic or other method as agreed.

[17] An initial Meter reading is required for a co-incident CoS and CoMC. It is optional for a CoMC only.

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3.3.3 Energise a SVA Metering System.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.3.1	Within 5 WD of changing energisation status or Within 10 WD for Supplier-serviced Metering Systems. or Within 5 WD of receipt of change of energisation status.	Send change of energisation status and the initial Meter register reading. Send change of energisation status and, if requested, the initial Meter register reading.	MOA[18].	Supplier, LDSO. HHDC[19]	D0139 Confirmation or Rejection of Energisation Status Change.	Electronic or other method, as agreed.
3.3.3.2	Upon receipt of notification of SVA MS energisation status change.	Record notification by MOA or Supplier of SVA MSs which have been energised and the dates on which they were energised.	HHDC.		Details of SVA MSs which have been energised and the dates on which they were energised.	Internal Process.

[18] If the LDSO carried out the energisation then the MOA shall only send the D0139 to the HHDC.
[19] If an HHDC is aware that their record of the energisation status of a Metering System is inconsistent with the energisation status of the Metering system on site, the HHDC should notify both the HHMOA and the Supplier as soon as possible after becoming aware of the inconsistency, by email or another method, as agreed.

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3.3.4 De-energise a SVA Metering System.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
If MOA De-energises (LV MS)						
3.3.4.1	Within 3 WD of request to de-energise MS from Supplier and before planned date for de-energisation.	Arrange with HHDC to collect HH Metered Data. For Supplier--serviced Metering Systems, the Supplier, rather than the HHDC, will collect the HH Metered Data. Steps 3.3.4.1 to 3.3.4.3 do not apply.	MOA.	HHDC.	D0005 Instruction on Action.	Electronic or other method, as agreed.
3.3.4.2	On date and time agreed in 3.3.4.1.	Collect HH Metered Data.	HHDC.		Refer to Section 3.4.1.	Internal Process.
3.3.4.3	Immediately following 3.3.4.2	Confirm HH Metered Data collection.	HHDC.	MOA.	The MOA will telephone the HHDC when the MOA is on site. Following the HHDC collecting the data, the HHDC will provide confirmation to the MOA.	Telephone.
3.3.4.4	Within 5 WD of changing energisation status~~.~~ or Within 10 WD for Supplier-serviced Metering Systems.	Send change of energisation status and final Meter register reading.	MOA.	HHDC[19] Supplier, LDSO.	D0139 Confirmation or Rejection of Energisation Status Change.	Electronic or other method, as agreed.
3.3.4.5	Upon receipt of notification of SVA MS energisation status change.	Record notification by MOA or Supplier of SVA MSs which have been de-energised and the dates on which they were de-energised.	HHDC		Details of SVA MSs which have been de-energised and the dates on which they were de-energised.	Internal Process.
If LDSO De-energises (HV MS)						

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.4.6	Within 2 WD of agreeing date and time for de-energisation with LDSO MS and before planned date for de-energisation.	Arrange with HHDC to collect HH Metered Data.	MOA.	HHDC.	D0005 Instruction on Action.	Electronic or other method, as agreed.
3.3.4.7	On date and time agreed in 3.3.4.5.	Collect HH Metered Data.	HHDC.		Refer to Section 3.4.1.	Internal Process.
3.3.4.8	Immediately following 3.3.4.6	Confirm HH Metered Data collection.	HHDC.	MOA.	The MOA will telephone the HHDC when the MOA is on site. Following the HHDC collecting the data, the HHDC will provide confirmation to the MOA.	Telephone.
3.3.4.9	Within 5 WD of receipt of change of energisation status.	Send change of energisation status and, if requested, the final Meter register reading.	MOA.	HHDC[19]	D0139 Confirmation or Rejection of Energisation Status Change.	Electronic or other method, as agreed.
3.3.4.10	Upon receipt of notification of SVA MS energisation status change.	Record notification by MOA or Supplier of SVA MSs which have been de-energised and the dates on which they were de-energised.	HHDC.		Details of SVA MSs which have been de-energised and the dates on which they were de-energised.	Internal Process.

3.3.5 Disconnection[20] of a SVA Metering System following De-energisation.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.5.1	On confirmation from SMRS of disconnection.	Send end date for MS.	Supplier.	HHDC.	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other method, as agreed.

[20] For Registration Transfers from SMRS to CMRS use process described in BSCP68, Section 3.1

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3.3.6 Reconfigure or Replace SVA Metering System - No Change of Measurement Class ~~.~~ for HHDC-serviced Metering Systems[21].

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.6.1	Within 3 WD of request from Supplier to replace / reconfigure MS and before data collection date.	Arrange with HHDC to collect HH Metered Data.	MOA.	HHDC.	D0005 Instruction on Action.	Electronic or other method, as agreed.
3.3.6.2	On date or time agreed in 3.3.6.1.	Collect HH Metered Data.	HHDC.		Refer to Section 3.4.1.	Internal Process.
3.3.6.3	Immediately following 3.3.6.2.	Confirm HH Metered Data collection.	HHDC.	MOA.	The MOA will telephone the HHDC when the MOA is on site. Following the HHDC collecting the data, the HHDC will provide confirmation to the MOA.	Telephone.
3.3.6.4	Within 5 WD of the replacement / reconfiguration of the MS	Send final Meter register reading for replaced / reconfigured MS or notification that Meter register reading not obtainable.	MOA.	Supplier / HHDC / LDSO.	D0010 Meter Readings. D0002 Fault Resolution Report or Request for Decision on further Action. Also refer to Section 3.4.1 for processing data for old configuration.	Electronic or other method, as agreed.
3.3.6.5	Within 5 WD of the replacement / reconfiguration of the MS	Send initial Meter register reading for replacement MS / new configuration. Send MTD.	MOA.	Supplier / HHDC LDSO. HHDC	D0010 Meter Readings. D0268 Half Hourly Meter Technical Details. If site is complex, send Complex Site Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.

[21] For Supplier-serviced Metering Systems, the reconfiguration and replacement processes are set out in BSCP514 'SVA Meter Operations for Metering Systems registered in SMRS'.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.6.6	After planned date for replacement / reconfiguration of MS.	Collect HH Metered Data for replacement MS / new configuration.	HHDC.		Refer to Section 3.4.1.	Internal Process.
3.3.6.7	In accordance with timescales in Appendix 4.6.	Prove MS.	MOA.	HHDC.	Refer to Appendix 4.6.	Electronic or other method, as agreed.

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3.3.8 Change of Measurement Class from Below 100kW to Above 100kW or Vice Versa.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.8.1	Within 5 WD of identification of CoMC change.	Send notification of Measurements Class change as either above or below 100kW.	Supplier.	HHDC.	D0289 Notification of MC/EAC/PC[6~~7~~6]~~.~~	Electronic or other method, as agreed.
3.3.8.2	Within 1 WD of 3.3.8.1.	Record revised Measurement Class type.	HHDC.			Internal Process.

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3.3.9 Change of Feeder Status – Energise Feeder[22].

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.9.1	Within 5 WD of changing feeder status.	If requested, send Meter register reading. Send MTD.	MOA[23].	HHDC . Supplier / HHDC / LDSO.	D0010 Meter Readings. D0268 Half Hourly Meter Technical Details. If site is Complex, send Complex Site Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.
3.3.9.2	In accordance with timescales in Appendix 4.6.	Prove MS if feeder has been energised for the first time.	MOA.	HHDC.	Refer to Appendix 4.6.	Electronic or other method, as agreed.

[22] This process shall only be used for multi-feeder sites. Where a single feeder site is to be energised or de-energised, processes 3.3.1 or 3.3.2 shall be used as appropriate.
[23] The LDSO may perform this role.

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3.3.10 Change of Feeder Status – De-energise Feeder[22]~~.~~

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.10.1	Within 3 WD of request to de-energise feeder and before data collection date or as the HHMOA sees necessary.	Arrange with HHDC to collect HH Metered Data.	MOA[23].	HHDC.	D0005 Instruction on Action.	Electronic or other method, as agreed.
3.3.10.2	On the date and time agreed in 3.3.10.1.	Collect HH Metered Data.	HHDC.			Internal Process.
3.3.10.3	Immediately following 3.3.10.2.	Confirm HH Metered Data collection.	HHDC.	MOA.	The MOA will telephone the HHDC when the MOA is on site. Following the HHDC collecting the data, the HHDC will provide confirmation to the MOA.	Telephone.
3.3.10.4	Immediately following 3.3.10.3.	Note Meter register reading, if available. If HH Metered Data was not uploaded by the HHDC, download HH Metered Data, if available. CHANGE FEEDER STATUS.	MOA.			Internal Process.
3.3.10.5	Within 5 WD of changing feeder status.	If requested, send Meter register reading or notification that Meter register reading not obtainable. Send MTD.	MOA.	HHDC. Supplier / HHDC / LDSO.	D0010 Meter Readings. D0268 Half Hourly Meter Technical Details. If site is Complex, send Complex Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.

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3.3.11 Coincident Change of Measurement Class from NHH to HH and Change of Supplier for Supplier-Serviced Metering Systems.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.11.1	Prior to CoMC date change. or Within 5 WD of coincident CoS and CoMC.	Send notification of appointment, including start date and associated Agent details. The sending of the D0302 is optional.	New Supplier.	HHDC.	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms[8]. D0289 Notification of MC/EAC/PC[6]. D0302 Notification of Customer Details.	Electronic or other method, as agreed.
3.3.11.2	Following 3.3.11.1	Send Confirmation of Appointment.	HHDC.	New Supplier.	D0011 Agreement of Contractual terms	Electronic or other method, as agreed.

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3.3.12 Change of Measurement Class from NHH to HH for Supplier-serviced Metering Systems.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.12.1	Prior to CoMC date change Or Within 5 WD of CoMC.	Send notification of appointment, including start date and associated Agent details. The sending of the D0302 is optional.	Supplier.	HHDC.	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms[8]. D0289 Notification of MC/EAC/PC[6]. D0302 Notification of Customer Details.	Electronic or other method, as agreed.
3.3.12.2	Following 3.3.12.1	Send Confirmation of Appointment.	HHDC.	Supplier.	D0011 Agreement of Contractual terms.	Electronic or other method, as agreed.

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3.3.13 Coincident Change of Measurement Class from HH to NHH and Change of Supplier for Supplier-serviced Metering Systems

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.13.1	On termination of appointment of HHDC.	Send appointment termination date for MS.	Current Supplier.	HHDC.	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other method, as agreed.
3.3.13.2	Following the HHDC termination date.	Collect HH data up until midnight on HHDC termination date and send to HHDC.	Current Supplier.	HHDC.	Refer to Section 3.4. DXXXX or DYYYY.	Electronic or other method, as agreed.

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3.3.14 Change of Measurement Class from HH to NHH for Supplier-serviced Metering Systems.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.14.1	On termination of appointment of HHDC.	Send appointment termination date for MS.	Supplier.	HHDC.	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other method, as agreed.
3.3.14.2	Following the HHDC termination date.	Collect HH data up until midnight on HHDC termination date and send to HHDC.	Supplier.	HHDC.	Refer to Section 3.4. DXXXX or DYYYY.	Electronic or other method, as agreed.

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3.3.15 Reconfigure or Replace SVA Metering System - No Change of Measurement Class (for Supplier-Serviced Metering Systems).

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.15.1	If SVA Metering System replacement: Within 3 WD of request from Supplier to replace / reconfigure MS and before data collection date.	Liaise with Supplier to collect HH Metered Data.	MOA.	Supplier.	As agreed.	Electronic or other method, as agreed.
3.3.15.2	On date or time agreed in 3.3.15.1 or prior to replacement/ reconfiguration.	Collect HH Metered Data.	Supplier.			Internal Process.
3.3.15.3		Reconfigure the SVA Metering System and send HH data to HHDC.	Supplier.	HHDC.	Refer to Section 3.4. DXXXX OR DYYYY.	Electronic or other method, as agreed.

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3.4 Collection Activities

3.4.1 HHDC collects, validates and sends consumption data.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.1.1	As appropriate.	Collect[24] and validate HH Metered Data and check items at site.	HHDC.		Refer to Appendix 4.1, Appendix 4.2, Appendix 4.3, and where relevant Appendix 4.8.	Internal Process.
3.4.1.2	Not less than once every calendar month.	In respect of de-energised SVA MSs where communications equipment is available on site, attempt remote data collection.	HHDC.			Internal Process.
3.4.1.3	Annually.	In respect of de-energised SVA MSs which do not include communications equipment or for which the communications equipment is not functioning correctly, make a site visit to attempt data collection.	HHDC.			Internal Process.
3.4.1.4	Following visiting site and in accordance with timescales in Appendix 4.1 and 4.8.	Provide relevant reports.	HHDC.	SFIC. Supplier, MOA. Supplier, MOA and (if requested) LDSO.	Refer to Appendix 4.1 and where relevant Appendix 4.8. D0135 Report Possible Safety Problem. D0136 Report to Supplier of Possible Irregularity. D0008 Meter Advance Reconciliation Report in accordance with Appendix 4.8.	Electronic or other method, as agreed.
3.4.1.5	When fault suspected with metering or communications equipment.	Investigate and report any faults detected.	HHDC.		Refer to Section 3.4.2.	Internal Process.

[24] The HHDC shall retrieve data from the Meter as soon as possible before historical data is overwritten.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.1.6	Within 2 WD of detecting consumption on de-energised metering or if maximum permissible energy exceeds that allowed.	Report any consumption detected on de-energised metering and escalate any occurrences where the energy recorded, for any Settlement Period, exceeds the maximum permissible on energised metering.	HHDC.	Supplier, MOA.	Refer to Appendix 4.1 D0001 Request Metering System Investigation.	Internal Process. Electronic or other method, as agreed.
3.4.1.7	When maximum permissible energy exceeds that allowed.	Send notification of action to be taken.	Supplier.	HHDC.	D0005 Instruction on Action. The HHDC will be instructed to validate the actual data or to replace the actual data with estimated successfully validated data.	Electronic or other method, as agreed.
3.4.1.8	Following 3.4.1.7.	Undertake action requested by Supplier or if no response provided by Supplier apply the rules defined in Appendix 4.1.	HHDC.			Internal Process.
3.4.1.9	If no response received from Supplier and following 3.4.1.8.	Report any occurrences where estimated consumption data used because energy recorded exceeds that allowed and Supplier has not provided an appropriate course of action.	HHDC.	BSCCo.	P0208 Estimation Due To High Energy Recorded.	Manual.
3.4.1.10	Where required.	Provide operational data or additional information where the exceptions identified in Appendix 4.2 are met.	Supplier.	HHDC.	In accordance with Appendix 4.2.	Electronic or other method, as agreed.
3.4.1.11	When data is invalid or cannot be retrieved or if requested by Supplier to estimate consumption or if energy exceeds that allowed by more than the limit defined in 3.4.1.6.	Estimate consumption data. Send estimated consumption data report.	HHDC.	Supplier, LDSO.	Refer to Appendix 4.2. D0022 Estimated Half Hourly Data Report.	Internal Process. Electronic or other method, as agreed.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.1.12	As agreed with Supplier and prior to next Volume Allocation Run and if requested by Supplier to use data following 3.4.1.7.	Validate consumption data (actual and estimated).	HHDC[25].		Refer to Appendix 4.1.	Internal Process.
		Send valid consumption data (including data for Unmetered Supplies)[26]	HHDC	HHDA.	D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix.	Electronic or other method, as agreed.
		Send valid consumption data (including data for Unmetered Supplies)	HHDC.	Supplier.[27]	D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix. AND/OR D0275 Validated Half Hourly Advances.	Electronic or other method, as agreed.
	On a monthly basis, subject to availability.[28]	Send cumulative register read.	HHDC.	LDSO.	For Metering Systems registered to any either Measurement Class F or G: D0010 Meter Readings.	Electronic or other method, as agreed.

[25] The HHDC shall provide data for a re-run authorised and timetabled by the Panel, as required.
[26] The HHDC shall transfer the complete active data for a SVA MSID to the HHDA to enable the Supplier to meet its obligations under the SVAA Calendar. The HHDC shall send to the HHDA:
(i) for the Interim Information Volume Allocation, data for all Meter Period Values for all SVA MSIDs, which data may be actual or estimated; and
(ii) for the Initial Volume Allocation and for reconciliations subsequent to Initial Volume Allocation, updates of this data where the data has changed
[27] The dataflow(s) to be used shall be those as agreed between the sender and recipients.
[28] HHDCs only need to send the D0010 when the HHDC has actual read data. If data cannot be obtained, then HHDC should not send estimated data to the LDSO.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
		Send valid consumption data (including data for Unmetered Supplies).	HHDC.	LDSO.[27]	For Metering Systems registered to any other Measurement Class: D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix. AND/OR D0275 Validated Half Hourly Advances.	Electronic or other method, as agreed.

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3.4.2 HHDC investigates inconsistencies.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.2.1	At any time, if appropriate.	Send notification of inconsistencies.	Any Participant.	Supplier.[29]	Details of inconsistencies (e.g. invalid data, faulty metering, invalid MTD etc.).	Electronic or other method, as agreed.
3.4.2.2	Within 2 WD of 3.4.2.1 (if applicable), or as required.	Send notification of inconsistencies and request investigation. Go to 3.4.2.4.	Supplier.	HHDC.	D0001 Request Metering System Investigation.	Electronic or other method, as agreed.
3.4.2.3	If required, following data aggregation exception	Send notification of inconsistencies and request investigation.	HHDA.	HHDC, Supplier.	D0235 Half Hourly Aggregation Exception Report.	Electronic or other method, as agreed.
3.4.2.4	Within 5 WD of 3.4.2.2 or 3.4.2.3 as appropriate.	Investigate inconsistencies. Take corrective action if possible. Go to 3.4.2.5 if a MS investigation is required, 3.4.2.6 if inconsistencies have been resolved and a MS investigation was not required, or 3.4.2.10 if inconsistencies remain unresolved and a MS investigation was not required.	HHDC.			Internal Process.
3.4.2.5	Following 3.4.2.4 if a MS investigation is required.	Initiate process 3.4.3.	HHDC.			
3.4.2.6	Within 5 WD of resolution of inconsistencies, if a MS investigation was not required.	Report resolution of inconsistencies.	HHDC.	Supplier.	D0002 Fault Resolution Report or Request for Decision on Further Action.	Electronic or other method, as agreed.

[29] The D0001 'Request Metering System Investigation' can be used to notify the Supplier of the inconsistency if appropriate.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.2.7	If appropriate, within 5 WD of 3.4.2.6.	Report resolution of inconsistencies.	Supplier.	Relevant Participant.	As appropriate: D0002 Fault Resolution Report or Request for Decision on Further Action. Details of resolution.	Electronic or other method, as agreed.
3.4.2.8	If appropriate, following 3.4.2.6.	If a problem has caused incorrect consumption to be recorded, estimate / correct consumption data.	HHDC.[30]		Refer to Appendix 4.2 if appropriate.	Internal Process.
3.4.2.9	As soon as possible following 3.4.2.8.	Send corrected data.	HHDC. HHDC.	Supplier, LDSO. Supplier, LDSO, HHDA.	D0022 Estimated Half Hourly Data Report. D0275 Validated Half Hourly Advances.[31] D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix.[31] Or DXXXX Half Hourly Advances for Inclusion in Aggregated Supplier Matrix.	Electronic or other method, as agreed.
3.4.2.10	As soon as possible if inconsistencies remain unresolved but a MS investigation was not required.	Report action required.	HHDC.	Supplier.	Details of action required.	Electronic or other method, as agreed.

[30] Where the inconsistency was identified by a Participant other than the HHDA via the D0235 'Half Hourly Aggregation Exception Report', the Supplier shall send the relevant Participant the resolution of inconsistency report within 5WD of receiving the D0002 'Fault Resolution Report or Request for Decision on Further Action'. The Supplier shall use the D0002 for this notification where the Participant initially notified the Supplier of the inconsistency via the D0001 'Request Metering System Investigation'.

[31] For Measurement Classes F and G, the HHDC should not send the D0036 or D0275 to the LDSO but instead send the D0010 in accordance with the timescales and processes in 3.4.1.12 above.

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3.4.3 HH Metering System investigation process

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.3.1	As appropriate.	Send request to investigate MS.	HHDC.	MOA.	D0001 Request Metering System Investigation. See Appendix 4.4 for list of example circumstances where this request may be made.	Electronic or other method, as agreed.
3.4.3.2	If fault resolved within 5 WD of receipt of D0001.	Go to 3.4.3.10.	MOA.			
3.4.3.3	If fault remains unresolved 5 WD after receipt of D0001.	Send notification that the fault cannot be resolved within 5WD, and send a corresponding fault resolution plan (if required) detailing the actions that need to be taken to resolve the fault and the proposed timescales or update on proposed next steps. Request decision on further action if appropriate.	MOA.	HHDC.[32]	D0005 Instruction on Action.[33] Fault resolution plan (if required).	Electronic or other method, as agreed. Fax, Email or other method, as agreed.
3.4.3.4	As soon as possible after 3.4.3.3, if appropriate.	Send decision on further action.	HHDC.	MOA.	D0005 Instruction on Action.	Electronic or other method, as agreed.
3.4.3.5	If fault resolved within 15 WD of receipt of D0001.	Go to 3.4.3.10.	MOA.			
3.4.3.6	If fault remains unresolved 15 WD after receipt of D0001.	Notify that the fault remains unresolved.	MOA.	HHDC.	D0005 Instruction on Action.	Electronic or other method, as agreed.
3.4.3.7	As soon as possible after 3.4.3.6.	Send update on investigation.[34]	HHDC.	Supplier.	Details of update.	As agreed.

[32] The HHDC should contact and liaise with the Supplier if appropriate.

[33] The D0005 'Instruction on Action' should always be sent containing the high level points so that an audit trail can be maintained. For complex cases where the D0005 is not sufficient, or where requested by the HHDC, further details can be given in the fault resolution plan. In these instances the sending of the fault resolution plan should be referred to in the D0005. Any other correspondence between the Supplier, HHMOA and HHDC which is required to resolve the fault should be sent in a format and by a method agreed by those Participants involved.

[34] The Supplier and HHDC should agree whether this will be via normal weekly or monthly reporting, or by a specific report

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.3.8	Following 3.4.3.6, if and when appropriate.	Consult and / or update HHDC regarding investigation on a regular basis (as agreed) until fault resolved.	MOA.	HHDC.[32]	D0005 Instruction on Action.	Electronic or other method, as agreed.
3.4.3.9	As soon as possible after 3.4.3.8.	Send update on investigation.[34]	HHDC.	Supplier.	Details of update.	As agreed.
3.4.3.10	Within 5 WD of resolving fault.	Send fault resolution report and undertake any steps in process 3.3.6 which may be appropriate.	MOA.	HHDC, Supplier.	D0002 Fault Resolution Report or Request for Decision on Further Action.	Electronic or other method, as agreed.
3.4.3.11	If appropriate, at the same time as 3.4.3.10.	Send MTD, if changed or corrected.	MOA.	Supplier, HHDC, LDSO.	D0268 Half Hourly Meter Technical Details. If site is Complex refer to Appendix 4.9.	Electronic or other method, as agreed.
3.4.3.12	In accordance with timescales in Appendix 4.6.	If MTD manually intervened or there has been a key field change, prove MS.	MOA.	HHDC.	Refer to Appendix 4.6 and process 3.5.	Electronic or other method, as agreed.
3.4.3.13	If appropriate, following 3.4.3.10.	Where an investigation indicates that a fault has caused incorrect consumption to be recorded, estimate / correct consumption data.	HHDC or Supplier.		Refer to Appendix 4.2 if appropriate.	Internal Process.
3.4.3.14	As soon as possible following 3.4.3.13.	Send corrected data.	HHDC~~.~~ or Supplier. ~~HHDC.~~	Supplier, LDSO. HHDC. ~~Supplier, LDSO, HHDA.~~	~~D0022 Estimated Half Hourly Data Report.~~ ~~D0275 Validated Half Hourly Advances.~~[34~~28~~] Refer to Section 3.4.1 or 3.4.6 as appropriate ~~D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix.~~[34~~28~~]	Electronic or other method, as agreed.

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3.4.4 Submission of Data for Demand Side Balancing Reserve service

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
For submission of data for the DSBR tendering process:						
3.4.4.1	Upon review of DSBR tender submissions	Send initial request for historic validated HH Metered Data	Transmission Company	HHDC	MSIDs and Settlement Days for which HH Metered Data is required.	Email
3.4.4.2	Upon receipt of request for HH Metered Data	Confirm receipt of request	HHDC	Transmission Company	Confirmation of receipt.	Email
3.4.4.3	Within 5 WD of 3.4.4.2	Collate and send historic validated HH Metered Data for each MSID included in the request (only where data is available)	HHDC	Transmission Company	For each requested MSID provide the following data: Actual/Estimated Indicator, Measurement Quantity Id, MSID, Period Metered Consumption, Settlement Date and Supplier Id. List items in D0036 order[35]	Email
3.4.4.4	Upon receipt of requested HH Metered Data	Review data received	Transmission Company			Internal Process
For submission of 'post DSBR event' data:						
3.4.4.5	Within 13 Settlement Days of a DSBR Event	Send request for HH validated Metered Data	Transmission Company	HHDC	MSIDs and Settlement Days for which HH Metered Data is required.	Email
3.4.4.6	Upon receipt of request for HH Metered Data	Confirm receipt of request	HHDC	Transmission Company	Confirmation of receipt.	Email

[35] For the avoidance of doubt the HHDC shall provide data for all Settlement Periods for all Settlement Days (including weekends and bank holidays) requested by the Transmission Company.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.4.7	Within 5 WD of 3.4.4.6	Collate and send HH validated Metered Data for each MSID included in the request	HHDC	Transmission Company	For each requested MSID and Settlement Day provide the following data. Actual/Estimated Indicator, Measurement Quantity Id, MSID, Period Metered Consumption, Settlement Date and Supplier Id. List items in D0036 order for all Settlement Periods for each day requested (days may not be consecutive)	Email
3.4.4.8	Upon receipt of requested HH Metered Data	Review data received	Transmission Company			Internal Process
3.4.4.9	Following 3.4.4.8	Send any required follow up request	Transmission Company	HHDC	Detail and rationale for further request	Email/Telephone
3.4.4.10	Within 5 WD of 3.4.4.9	Send response to follow up request	HHDC	Transmission Company	Additional information required	Internal Process

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3.4.5 Demand Control Events

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.5.1	Within 4WD of end of Demand Control Event	Send notification of Demand Control Event and all affected MSIDs	LDSO	BSCCo	P0238 MSIDs affected by Demand Control Event[36] - the P0238 contains details of all MSIDs disconnected by the LDSO, i.e. for a single Demand Control Event, a single P0238 is sent by the LDSO, ultimately, to all DCs and DAs.	Email to bscservicedesk@cgi.com
3.4.5.2	Within 1WD of 3.4.5.1	Acting on behalf of LDSOs, BSCCo will forward notifications received from LDSOs to HHDCs, HHDAs, SVAA	BSCCo	HHDC, HHDA, SVAA	P0238 MSIDs affected by Demand Control Event	Email BSCCo will maintain details of Party Agent contact details to ensure it is able to send P0238
3.4.5.3	Within 19WD of receipt of P0238 in 3.4.5.2	Estimate HH Demand Disconnection volume according to appendix 4.2.5 and send to HHDA	HHDC	HHDA	D0375Disconnected MSIDs and Estimated Half Hourly Demand Disconnection Volumes[37] [38] Appendix 4.2.5 Demand Control – Disconnection volume Estimates	Electronic or other method, as agreed
3.4.5.4	Within 1WD of receiving P0241 from the Transmission Company	Notify Data Collectors and Data Aggregators of any MSIDs subject to demand side Non-BM STOR or DSBR instruction along with estimated volumes of reduction[39]	SVAA	HHDC	D0375 Disconnected MSIDs and Estimated Half Hourly Demand Disconnection Volumes	Electronic or other method, as agreed

[36] Whilst the P0238 is sent by the LDSO to the BSCCo, it should be generated by the LDSO as though it is to be sent direct to Party Agents, i.e. the 'MPID To' in the header should reflect the various agents that are intended to receive the file.
[37] Please see Appendix 4.2.5 for guidance on populating the D0375.
[38] The HHDC should only send a D0375 where it is appointed to at least one MSID listed in the P0238. Where it is not appointed to any affected MSIDs, the HHDC does not need to send a D0375.
[39] Demand side Non-BM STOR and DSBR MSIDs will only ever be Active Import MSIDs. Therefore any estimated volumes of reduction reported by the SVAA to the HHDC will be an AI value.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.5.5	If required, following receipt of D0375 in 3.4.5.4 and in time for next Settlement Run	Adjust estimated HH Demand Disconnection volume according to appendix 4.2.5 and send to HHDA	HHDC	HHDA	D0375 Disconnected MSIDs and Estimated Half Hourly Demand Disconnection Volumes	Electronic or other method, as agreed

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3.5 Proving a Metering System[40, 41].

3.5.1 Proving of a Metering System by Method 1. [43]

REF	WHEN [42 43]	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5.1.1	Following installation / reconfiguration, commissioning and once HH Metered Data retrieved or if previous proving test attempt failed.	Send request for proving test (indicating which Settlement Periods to be collected) or alternatively request re-test following failure of immediately preceding proving test and provide MTD.	MOA.	HHDC.	D0005 Instruction on Action. D0268 Half Hourly Meter Technical Details. If site is complex, send Complex Site Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.
3.5.1.2		Obtain the same HH Settlement Period Meter reading as requested by the MOA using either a Hand Held Unit or via remote interrogation as appropriate (ensuring that data collected for the Settlement Period does not contain a zero value).	HHDC.		As a minimum the HHDC shall obtain the data required by the MOA, but may also obtain and send more data than requested.	Internal Process.
3.5.1.3		Send raw HH Metered Data or notification that Metered Data cannot be collected for the Settlement Periods requested [44]. If unable to collect metering data for Settlement Period requested, send alternative Settlement Period HH Metered Data.	HHDC.	MOA.	D0001 Request Metering System Investigation. D0003 Half Hourly Advances.	Electronic or other method, as agreed.

[40] The MOA shall decide what proving method is appropriate in conjunction with the HHDC.
[41] MS assigned to Measurement Class F are exempt from proving tests.
[42] All timescales in this process are undertaken in accordance with Appendix 4.5.
[43] In the case of a Registration Transfer from CMRS to SMRS, the proving test shall be performed in accordance with the timescale described in BSCP68, Section 3.2.
[44] The HHDC shall use all reasonable endeavours to collect the data for the Settlement Period requested.

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3.5.2 Proving of a Metering System by Method 2. [43]

REF	WHEN [42] [43]	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5.2.1	Following installation / reconfiguration, commissioning and once HH Metered Data retrieved or if previous proving test attempt failed.	Agree date and time for proving test with HHDC or alternatively request re-test following failure of immediately preceding proving test and provide MTD.	MOA.	HHDC.	D0005 Instruction on Action. D0268 Half Hourly Meter Technical Details. If site is complex, send Complex Site Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.
3.5.2.2		Obtain the same HH Settlement Period Meter reading as agreed with the MOA using the either a Hand Held Unit or via remote interrogation as appropriate (ensuring that data for the Settlement Period collected does not contain a zero value).	HHDC.		As a minimum the HHDC shall obtain the data required by the MOA, but may also obtain and send more data than requested.	Internal Process.
3.5.2.3		Send raw HH Metered Data or notification that Metered Data cannot be collected.[44] If unable to collect HH Metered Data for agreed Settlement Period, send alternative Settlement Period HH Metered Data.	HHDC.	MOA.	D0001 Request Metering System Investigation. D0003 Half Hourly Advances.	Electronic or other method, as agreed.

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3.5.3 Proving of a Metering System by Method 3. [43]

REF	WHEN [42 43]	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5.3.1	Following installation, commissioning and once HH Metered Data retrieved.	Send request for proving test or alternatively request a re-test following failure of immediately preceding proving test and provide MTD.[45]	MOA.	HHDC.	D0005 Instruction on Action. D0268 Half Hourly Meter Technical Details. If site is complex, send Complex Site Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.
3.5.3.2		Obtain for Settlement Period Meter reading of own choosing either a Hand Held Unit or via remote interrogation as appropriate (ensuring that data for the Settlement Period collected does not contain a zero value).	HHDC.			Internal Process.
3.5.3.3		Send raw HH Metered Data or notification that Metered Data cannot be collected.	HHDC.	MOA.	D0001 Request Metering System Investigation. D0003 Half Hourly Advances.	Electronic or other method, as agreed.

[45] The MOA does not specify the Settlement Periods to be collected by the HHDC.

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3.5.4 Proving of a Metering System by Method 4. [43]

REF	WHEN [42 43]	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5.4.1	Following installation / reconfiguration, commissioning and once HH Metered Data retrieved.	Send request for proving test or alternatively request a re-test following failure of immediately preceding proving test and provide MTD[45].	MOA.	HHDC.	D0005 Instruction on Action. D0268 Half Hourly Meter Technical Details. If site is complex, send Complex Site Supplementary Information Form. Refer to Appendix 4.9 Guide to Complex Sites.	Electronic or other method, as agreed.
3.5.4.2		Obtain for Settlement Period Meter reading of own choosing either a Hand Held Unit or via remote interrogation as appropriate (ensuring that data for the Settlement Period collected does not contain a zero value).	HHDC.			Internal Process.
3.5.4.3		Send raw HH Metered Data or notification that Metered Data cannot be collected.	HHDC.	MOA.	D0001 Request Metering System Investigation. D0003 Half Hourly Advances.	Electronic or other method, as agreed.

3.5.5 Issuing Results of Proving Test (All Methods of Proving).

REF	WHEN [42 43]	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5.5.1	In accordance with timescales in Appendix 4.6.	Send notification of successful proving test / re-test. Proceed to process 3.4.	MOA.	HHDC, Supplier, LDSO.	D0214 Confirmation of Proving Tests.	Electronic or other method, as agreed.
3.5.5.2	In accordance with timescales in Appendix 4.6.	Send notification that proving test / re-test failed.	MOA.	HHDC.	D0002 Fault Resolution Report or Request for Decision on Further Action.	Electronic or other method, as agreed.

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4. Appendices

4.1 Validate Meter Data.

Unless the HHDC is informed by the MOA that the retrieved data is incorrect, the HHDC shall accept Meter Period Value data collected from the Meter for validation processing.

The HHDC shall record all occurrences where data entering Settlements has been changed following instruction from the Supplier.

The HHDC shall retain the original reading value along with any alarms recorded in the Meter, the reason for failure where the value is invalid and the reason for accepting data previously flagged as suspect.

The data retrieval process shall include the following checks; however in the case where data is received from the Outstation automatically step 4.1.3 'Outstation Time' shall be performed at least every 20 calendar days by interrogation only.

The HHDC shall perform a validation check of Reactive Power Meter Period Values in addition to the Active Power Meter Period Values within step 4.1.5 'Cumulative/Total Consumption Comparison' and 4.1.7 'Main/Check Comparison'.

4.1.1 Outstation Id (Device Id)

When the Outstation is interrogated, or when data is received from the Outstation automatically the 'electronic serial number' of the Outstation is compared with that expected. If they differ then no data is collected (or processed further) and the failure is investigated in accordance with section 3.4.2.

4.1.2 Outstation Number of Channels

When the Outstation is interrogated, or when data is received from the Outstation automatically, the number of channels of the Outstation is compared with that expected. If they differ then no data is collected (or processed further) and the failure is investigated in accordance with section 3.4.2.

4.1.3 Outstation Time

When the Outstation is interrogated, the time of the Outstation is compared with that expected. If they differ by more than 20 seconds and less than 15 minutes then the outstation time is corrected by the data collection system. If the time differs by more than 15 minutes then the problem is resolved in accordance with section 3.4.2.

4.1.4 Alarms

When the Outstation is interrogated, or when data is received from the Outstation automatically, the individual alarms required by the relevant Code of Practice (CoP) shall be investigated if flagged. Some MSs may not have all the alarm flags specified in the relevant CoP, in which case a Dispensation under BSCP32 should exist.

Each alarm shall be investigated in accordance with section 3.4.2.

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4.1.5 Cumulative/Total Consumption Comparison

When the Outstation is interrogated, or when data is received from the Outstation automatically, and where the Outstation provides an electronic cumulative reading of the prime register equivalent to the total consumption of the Meter at that point in time. Using these readings, the following checks will be performed at least every seven days (i.e. on a daily or weekly basis or as agreed by the Supplier and HHDC).

i) The difference between the cumulative readings shall be calculated to ensure that the HH Metered Data used in Settlements sums to the Meter advance for the same interval[46], i.e. that the difference between cumulative readings and the sum of the Metered Period Data for the same date(s) and time(s) is within a suitable tolerance. It is recommended that the level of the tolerance should be set to take into account the period over which the check was performed. The recommended maximum levels are ±0.7% where the check is carried out on a weekly basis and ±5% where the check is carried out on a daily basis.

Specifically:

∑(pulses * pulse multiplier) for all Meter periods in the time interval = (Meter advance * Meter multiplier) for the time interval.

The calculation below outlines how the discrepancy should be calculated when performing tolerance checks.

$$Discrepancy = \left(\frac{\sum HHE - MA}{MA} \right) \times 100\%$$

Where:

∑HHE is the sum of HH Energy volumes in kWh and/or kvarh; and MA is the corresponding Meter Advance, i.e.

$MA = M_2 - M_1$

Where:

M2 is the cumulative reading (in kWh or kvarh) returned from the last time that the Meter was interrogated; and M1 is the cumulative reading (in kWh or kvarh) returned from the previous time that the Meter was interrogated or data was received automatically over the same time period as the sum of HH period energy.

[46] Described as performing a mini-MAR.

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ii) Where a main and check Meter is fitted, the main and check Meter advances are compared for any discrepancy between the two values in excess of 1.5 times the class accuracy requirements for the individual Meters at full load, as defined in the relevant CoP.

Allowances shall be made for low load discrepancies. If the discrepancy is unacceptable it shall be investigated in accordance with section 3.4.2.

4.1.6 Maximum Permissible Energy by Metering System Code of Practice

During validation where the energy recorded exceeds the permissible allowed, in accordance with column 4 in the table below, for one or more given Settlement Period, the HHDC will notify the Supplier.

CoP	Max. kW	Max kWh / Half Hour	Permissible Allowed: kWh per Half Hour
1	675,000	337,500	400,000
2	100,000	50,000	50,000
3	10,000	5,000	5,000
5	1,000	500	600
6 & 7	76	38	50
10	76	38	50

Following instruction from the Supplier, the HHDC will enter the actual data into Settlements or will replace the actual data with estimated data and enter this into Settlements.

Where however the Supplier does not provide instructions to the HHDC, the HHDC will apply the following rules, either:

- use actual consumption data if the energy has exceeded the permissible allowed by no more than 20%; or
- use estimated consumption data, rather than the actual consumption data if the energy exceeded the permissible allowed by more than 20%.

Note that:

CoPs 1, 2 and 3 are circuit capacity based and it is assumed that the Maximum Demand will not exceed the maximum kWh / Half Hour value.

CoP 5 is demand based and may occasionally exceed the maximum kWh / Half Hour value.

CoPs 6 & 7 are whole current Meters and the values are based on maximum voltage and current values of 3 phases x 253 Volts x 100 Amps. For these MSs, the fact that they are fused at 100 Amps limits the energy passed.

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Therefore, any recorded energy greatly higher than the maximum shown in the above table can be assumed to be erroneous.

4.1.7 Main/Check Comparison

Where main and check Meters are installed in accordance with the relevant CoP, ensure that the Metered Data recorded by each Meter is compared for each circuit. Allowance shall be made for low load discrepancies. Any discrepancy between the two values in excess of 1.5 times the accuracy requirements of that prescribed for the individual Meters at full load, as defined in the relevant CoP, shall be investigated in accordance with section 3.4.2.

4.1.8 Site Checks of SVA Metering System - Site Visit Report

The following checks shall be carried out by the HHDC on the HH MS when visiting a Site:

1. Any evidence of suspected faults to the MS including phase/fuse failure.
2. Any evidence of damage to metering and associated equipment.
3. Any evidence of tampering of any sort with the MS or associated equipment, particularly seals.
4. Any evidence of supply being taken when the Meters are de-energised.

NB The Local Interrogation Unit (IU) or Hand Held Unit (HHU) should be set to ensure agreement with the UTC clock at least every week.

Sites with polyphase MSs should be visited at least annually and single phase at least at two yearly intervals to perform the checks described above. Sites traded in Measurement Classes E, F and G are exempt from this requirement. Site visits made for other reasons may be used to carry out these checks.

Any problems are investigated in accordance with section 3.4.2 and a report is issued. The HHDC shall ensure that where a site visit was not possible, the reasons are explained sufficiently such that appropriate action can be taken to improve the chances of securing a successful site visit.

4.1.9 Reporting

Ensure that all cases of suspected MS faults are investigated in accordance with section 3.4.2 and are reported to the Supplier, MOA and LDSO, as appropriate.

Ensure that the original metered value (where obtained) and alarm(s), together with the reason for the changes to that value are retained.

4.2 Data Estimation.

Data will be estimated for Import and Export Metering using one of the following data estimation methods in the order of precedence specified below and will apply

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equally to above and below 100kW MSs. Data will be flagged appropriately as indicated below. Alternatively, the Revenue Protection Service may advise on required adjustments. Missing Reactive Power data will also be estimated in accordance with 4.2.3 below.

When the HHDC receives information from the MOA, Revenue Protection Service, site reports or other sources concerning metered data which has been or will be collected and processed, the Meter Period Value data shall be estimated in accordance with this BSCP where the HHDC believes the data to be in error. The HHDC shall inform the Supplier where an error might affect a different Supplier or data affects the Final Reconciliation Volume Allocation Run.

The HHDC shall retain any original value collected, whether such value is processed before or after receipt of any details of invalid data from the MOA, Revenue Protection Service, site reports or other source, and any alarms set up at the Meter.

Details of all data estimations and the rationale behind using the chosen method must be recorded for Audit purposes.

The HHDC will notify the relevant Supplier and (where appropriate) the LDSO of the data estimation method in accordance with 4.2.4 below.

Data estimation shall, wherever possible, be constructed using previous actual[47] Metered Data and not previously estimated data.

HHDCs should take particular care when carrying out data estimation using, or during, public holiday periods, e.g. Christmas and New Year, where abnormal consumption patterns may be experienced. Profiles from similar periods in previous years may be used where applicable and available.

HHDCs should consider local information, where available, when carrying out estimations and use appropriate **actual** historical data if this is considered to give a more accurate data estimation, e.g. when estimating consumption of energy for a building known to be a school during the month of August, the average load shape could be based on actual data for the same day of week and Settlement Periods from the previous year.

Having estimated data using one of the methods below, a report is to be produced in accordance with 4.2.4 below.

If a data estimation has been completed and submitted to the HHDA and actual 'A' flag data **OR** information leading to more accurate estimated data becomes available, this revised data shall be notified to the Supplier and LDSO and submitted to the HHDA for use in the next Volume Allocation Run.

Where a MAR has failed, in accordance with Appendix 4.8, due to a data estimation being included in the period of reconciliation, that period of data estimation shall be re-estimated.

[47] 'Actual' data means collected Metered Data – 'A' flagged – which has successfully passed a main / check data comparison (in accordance with Appendix 4.1.7) and Maximum validation (in accordance with Appendix 4.1.6).

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4.2.1 Standard Methods – Import Metering Systems

a. Main Meter data available but check Meter data missing.

Data from main Meter used providing that data is in line with previous load shape for same day of week and Settlement Periods.

Data Flag 'A'

b. Main Meter data missing and check Meter installed.

Data copied from the check Meter providing that data is in line with previous load shape for same day of week and Settlement Periods.

Data Flag 'A'

Note that a. and b. **do not apply** where main and check data is collected, but the data fails the main / check validation as described in Appendix 4.1.7.

c. One Settlement Period missing or incorrect where a prime Meter register reading can be taken.

Missing or incorrect Settlement Period data calculated from the prime Meter register advance and the other actual HH data recorded for the specific period of the calculation. Note that the prime Meter register advance will not correlate to Settlement Periods.

Data Flag 'A'

d. Two or three Settlement Periods missing or incorrect for prime Meter register or one Settlement Period missing or incorrect where a prime Meter register reading cannot be taken.

Manual values may be entered which ensure a match with real data trends.

Data Flag 'E'

e. Meter advance available.

kWh and/or kvarh consumption calculated in the order of precedence below:

(i) HH data constructed by using the average load shape based on **actual** Metered Data for the same day of week and Settlement Periods over the previous or following month taking into account weekends and public holidays.

(ii) HH data constructed by using the average load shape based on **actual** Metered Data for the same day of week and Settlement Periods over the previous or following 2-3 weeks taking into account weekends and public holidays.

(iii) HH data constructed by using the average load shape based on **actual** Metered Data for the same day of week and Settlement

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Periods over the previous or following week taking into account weekends and public holidays.

(iv) Where actual Metered Data is not available to satisfy the criteria for (i), (ii) or (iii) above, the HH data shall be constructed using the average load shape based on **actual** data for the same day of week and Settlement Periods over the nearest 4 week period to that for which a data estimation is required.

(v) Operational data or additional information will be used to construct the load shape supplied from another source (MOA, Supplier). Information to be supplied by the Supplier to the HHDC in a format agreed by both parties.

Data Flag 'E' except in (v), where the data is automatically retrieved by the MOA via an Interrogation Unit, in which case it will have an 'A' flag.

f. Meter advance unavailable.

kWh and/or kvarh consumption calculated in the order of precedence below:

(i) The average energy values and load shape will be constructed based on **actual** Metered Data for the same day of week and Settlement Periods over the previous or following month taking into account weekends and public holidays.

(ii) The average energy values and load shape will be constructed based on **actual** Metered Data for the same day of week and Settlement Periods over the previous or following 2-3 weeks taking into account weekends and public holidays.

(iii) The average energy values and load shape will be constructed based on **actual** Metered Data for the same day of week and Settlement Periods over the previous or following week taking into account weekends and public holidays.

(iv) Where actual data is not available to satisfy the criteria for (i), (ii) or (iii) above, the average energy values and load shape will be constructed based on **actual** Metered Data for the same day of week and Settlement Periods over the nearest 4 week period to that for which a data estimation is required.

(v) Operational data or additional information will be used to construct the load shape supplied from another source (MOA, Supplier). Information to be supplied by the Supplier to the HHDC in a format agreed by both parties.

Data Flag 'E'

g. No Meter advance, historical data, operational data or additional information available.

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The HHDC will use the EAC and Profile Class Id provided by the Supplier together with the Default Period Profile Class Coefficients (DPPCCs) provided in Market Domain Data (MDD), to perform the estimation of consumption. For the avoidance of doubt, DPPCCs are defined in clock time (British Summer Time during the summer months) and therefore the estimated data based upon this method will also be in clock time.

When estimating Reactive Energy consumption the HHDC will use the Measurement Class specific Default EAC and Default Period Profile Class Coefficients (DPPCCs) provided in Market Domain Data (MDD) in conjunction with a default power factor of 0.9 to determine missing Reactive Import values. The default power factor of 0.9 shall not be used when estimating Reactive Export values, in these instances a value of zero shall be submitted.

Data Flag 'E'

h. No EAC or Profile Class Id available.

Where the Supplier has not provided the data specified in 'g', the HHDC will use the DPPCCs for Profile Class 6 'Non Domestic Maximum Demand Load Factor Band 20 – 30 %', and with the Measurement Class specific HH Default EAC provided in MDD, derive the HH estimates for the missing Settlement Periods.

When estimating Reactive Energy consumption the HHDC will use the procedure specified above in conjunction with a default power factor of 0.9 to derive the Reactive Import estimates for the missing Settlement Periods. The default power factor of 0.9 shall not be used when estimating Reactive Export values, in these instances a value of zero shall be submitted.

Data Flag 'E'

4.2.2 Standard Methods – Export Metering Systems

The methods described in b. to g. below may only be used where the MS has a specific channel for gross Export and no netting of Import and Export occurs at the site.

a. Export Measurement Quantity with missing values where netting occurs at site.

The HH metered values for the period of missing data shall initially be set to zero, until such time that evidence of Export energy transfer is provided.

Data Flag 'E'

b. Main Meter data available but check Meter data missing.

Data from main Meter used providing that data is in line with previously retrieved data for the site.

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Data Flag 'A'

c. Main Meter data missing and check Meter installed.

Data copied from the check Meter providing that data is in line with previously retrieved data for the site.

Data Flag 'A'

Note that b. and c. **do not apply** where main and check data is collected but the data fails the main / check validation, as described in Appendix 4.1.7.

d. One Settlement Period missing or incorrect where a prime Meter register reading can be taken.

Missing or incorrect Settlement Period data calculated from the prime Meter register advance and the other actual HH data recorded for the specific period of the calculation. Note that the prime Meter register advance will not correlate to Settlement Periods.

Data Flag 'A'

e. Main and check Meter data missing or incorrect.

The HH metered values for the period of missing or invalid data shall be initially set to zero until generation can be calculated using f. or g. below.

Data Flag 'E'

f. Meter advance available

Operational data or additional information will be used to construct the profile supplied from another source (MOA, Supplier). Information to be supplied by the Supplier to the HHDC in a format agreed by both parties.

Data Flag 'E' except where the data is automatically retrieved by the MOA via an Interrogation Unit, in which case it will have an 'A' flag.

g. Meter advance unavailable

Operational data or additional information will be used to construct the profile supplied from another source (MOA, Supplier). Information to be supplied by the Supplier to the HHDC in a format agreed by both parties.

Data Flag 'E'

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4.2.3 Standard Methods – Reactive Power

Standard methods 4.2.1(b) through to 4.2.1(h) are also applicable to Reactive Import and Reactive Export, and the HHDC will use these methods to provide estimates of missing Reactive Power data.

These estimation requirements will only apply where the Meter Technical Details indicate that the Meter has been configured to Record period values, but has not been possible to read these values from the Meter for one or more Settlement Periods. HHDCs are not required to (and should not) estimate Reactive Power data for Metering Systems that do not have Reactive Power channels defined in the Meter Technical Details.

The HHDC may vary the standard methods 4.2.1(b) to 4.2.1(h) to use available Active Power data in estimating Reactive Power data.

Where it is not possible to use the above methods to provide estimates of missing Reactive Power data, the HHDC shall not provide estimated data. In particular, zero estimates shall be provided only when these represent genuine estimates of the missing Reactive Power data, and not as a method of signalling that estimates could not be provided.

4.2.4 Reporting

The report identifies all MSs for which Meter period estimated data ('E' flag data only) has been used, showing the dates and Settlement Periods affected. The HHDC will additionally provide full details of the data estimation method used to the Supplier, and where appropriate, to the LDSO (this information may be provided by any method agreed with the Supplier and the LDSO).[48]

4.2.5 Demand Control – Disconnection Volume Estimates

For each Settlement Period where an Active Power MSID[49] is impacted by a Demand Disconnection, the HHDC must create an estimate of the disconnection volume (in kWh) for this MSID and forward this to the HHDA.

The estimate of Demand Disconnection volume for an MSID within a Settlement Periods is:

0	For an Equivalent Meter
Max (0, E – V – A)	For all other MSIDs where a value of E can be calculated
0	Otherwise

[48] For the avoidance of doubt, the data estimation method may be provided using the D0022 Additional Information Field, or by any other method agreed between the HHDC, Supplier and LDSO (e.g. spreadsheets, emails) providing that an audit trail of such information is maintained.
[49] That is, an Active Import or Active Export MSID.

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Where:

- E is an estimate of the volume that would have flowed through the MSID without a disconnection, and is calculated in accordance with (in order of preference) 4.2.1(f), 4.2.1(g) or 4.2.1(h) for import meters, or 4.2.2(g) for export meters – where an estimate is required but cannot be calculated, E should equal zero;

- V is the estimate of volume reduction achieved through a demand side non-BM STOR or DSBR action as reported by the SVAA in the D0375 data flow (or zero if none was reported). For the avoidance of doubt, any non-BM STOR or DSBR MSID reported in a D0375 sent by the SVAA will be an Active Import site only. Therefore (if not reported) the Measurement Quantity ID for any Estimated HH Demand Disconnection Volume reported by the SVAA in the D0375 is AI. Where no value of V is available, V should equal zero; and

- A is the actual metered value in the Settlement Period, or an estimate calculated in accordance with (in order of preference) 4.2.1(a), 4.2.1(b) or 4.2.1(c) for import meters, or 4.2.2(b), 4.2.2(c) or 4.2.2(d) for export meters – where an estimate is required but cannot be calculated, A should equal zero;

Where the HHDC has already calculated an Estimated HH Demand Disconnection Volume for an MSID and subsequently receives a value V or other revised data for that MSID and affected Settlement Period, the HHDC will recalculate the Estimated HH Demand Disconnection Volume for that MSID and send this to the HHDA.

It is possible that the HHDC could receive multiple versions of the P0238 and D0375. The following table summarises what the HHDC should do in each case.

Scenario	**Action**
Multiple P0238s	
Demand Control Event ID – different LDSO MPID - different	Treat new P0238 as though a new Demand Control Event
Demand Control Event ID – same LDSO MPID - same	Treat new P0238 as replacement of earlier P0238
Demand Control Event ID – different LDSO MPID - same	Treat new P0238 as though a new Demand Control Event
Demand Control Event ID – same LDSO MPID - different	Treat new P0238 as replacement of earlier P0238

Multiple D0375s

In all cases the HHDC first checks a new D0375's Demand Control Event ID against existing P0238 Demand Control Event Id. Where no corresponding P0238 or where D0375 contains MSIDs that are not in P0238, the HHDC rejects new D0375. HHDC should raise issue with SVAA via the BSC Service Desk.

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Scenario	Action
Demand Control Event ID - different	Treat new D0375 as though a new Demand Control Event.
Demand Control Event ID - same	Treat new D0375 as replacement of earlier D0375.

Where a D0375 is received but a corresponding P0238 has not (i.e. a P0238 with the same Demand Control Event ID and Start and End Date and Times), the HHDC should reject the D0375 and raise the issue with the BSC Service Desk.

Where the Demand Control Event Id in a D0375 is the same as for an earlier received P0238 but the Start and/or End Date and Times are different, the HHDC should reject the D0375 and raise the issue with the BSC Service Desk.

4.3 Process Meter Data.

4.3.1 Where there is more than one Meter for an MSID, total the Meter period data by Meter period by Measurement Quantity.

4.3.2 Where one or more Meter period values for a Measurement Quantity is estimated, the Status of the totalled value shall be set to “estimated”.

4.3.3 Send the totalled active data to the HHDA and to the LDSO and Supplier according to the Settlement Timetable:

- for the Interim Information Volume Allocation the HHDC sends data for all Meter periods for all relevant MSIDs; the data may be actual or estimated.
- for the Initial Volume Allocation and subsequent reconciliation(s) the HHDC shall send updates only for this data.

4.3.4 Data File Flags

Ensure that MS data files transmitted by the HHDC to other parties are flagged according to the following table:

Data Flag	Description
A	Actual data (read automatically or manually)
E	Estimated data

4.3.5 The HHDC shall record the totalled Active Energy and Reactive Energy data.

4.4 Reasons for Requesting a Metering System Investigation.

A D0001 Request Metering System Investigation is issued where the HHDC identifies or is made aware of a problem that requires a MS investigation by the MOA to resolve. Possible reasons include but are not limited to:

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- The HHDC suspects invalid MTD on the D0268 Half Hourly Meter Technical Details;
- The HHDC has reason to suspect data retrieved from a MS;
- Data retrieved from a MS failed validation and/or Meter Advance Reconciliation;
- Consumption data is detected on a MS registered as de-energised;
- The HHDC is unable to resolve an issue in retrieving data from a MS;
- Data required for a proving test cannot be obtained;
- Consumption data is flagged with an alarm; and/or
- At the request of the Supplier.

4.5 Key SVA Meter Technical Details.

Below is a list of key fields of Meter Technical Details (MTD) that will cause the MS to be proved if any, or all, of them are changed whilst the MS is energised:

- Outstation Id;
- Meter Id (serial number);
- Outstation number of channels;
- Measurement Quantity Id;
- Meter multiplier;
- Pulse multiplier;
- CT and / or VT Ratios; and
- Access to Metering Equipment at Password level 3.

Where any, or all of the above are changed whilst a MS is de-energised, a proving test shall be initiated as soon as that MS becomes energised and completed in the timescales set out in Appendix 4.6.5.

4.6 Proving of Half Hourly Metering Systems.

4.6.1 Reasons for a Proving Test.

A proving test shall be carried out on both main and check MS and shall be carried out in the following circumstances:

- As a result of new connection or Registration Transfers from CMRS to SMRS;

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- Following a change of HHDC but only in the event that the MTD was manually intervened;
- Following a change of MOA appointment but only in the event that the MTD was manually intervened;
- Following a concurrent Change of Supplier and HHDC but only in the event that the MTD was manually intervened;
- When a MS is reconfigured / replaced;
- Following a change of Measurement Class from NHH to HH;
- When there is a Key field change (refer to Appendix 4.5);
- Where there has been a Key field change (refer to Appendix 4.5) whilst a site has been de-energised and the MS becomes energised; and
- Where a feeder is energised for the first time.

'Manually intervened (with regard to proving test)' means that the MTD have been entered, re-entered or changed in a software system manually, i.e. the data has not been automatically entered into systems via receipt of a data flow.

MS assigned to Measurement Class F are exempt from proving tests.

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4.6.2 Methods of Proving.

The MOA shall decide what method of proving test is appropriate in conjunction with the HHDC and has one of the four methods outlined below to choose from:

Complex Sites shall be proven in the same way as a non Complex Site except that the MOA shall use the aggregated data provided by the MS for comparison.

Method 1

The MOA installs / reconfigures the MS and commissions the MS and records the HH Metered Data reading while on site. The MOA then requests the HHDC to collect HH Metered Data for the same Settlement Period as collected by the MOA. The HHDC then collects the HH Settlement Period requested and sends this raw HH Metered Data to the MOA for comparison.

Method 2

The MOA installs / reconfigures the MS and commissions the MS and records the HH Metered Data reading while on site. The MOA then agrees with the HHDC a date and time for the proving test. The MOA visits the site a second time and collects and records the HH Metered Data reading for the specified HH Settlement Period requested of the HHDC. The HHDC collects for the same HH Settlement Period and sends this raw HH Metered Data to the MOA for comparison.

Method 3

The MOA installs / reconfigures the MS and commissions the MS and records the HH reading while on site. When at the office, the MOA then uses its own data retrieval system to read the MS for the same HH Settlement Period as collected during the site visit. The MOA then compares the HH Metered Data collected on site with the data retrieved at the office. The HHDC collects for the HH Settlement Period of own choosing and sends this to the MOA[50]. The MOA then uses its data retrieval system to read for the same HH Settlement Period as provided by the HHDC.

Method 4

The MOA installs / reconfigures the MS and commissions the MS and records the HH Metered Data reading while on site. The HHDC collects for the HH Settlement Period of own choosing and sends this to the MOA[50]. The MOA then uses either the manufacturer's software or software which has a relevant protocol approval in accordance with BSCP601 'Metering Protocol Approval and Compliance Testing' to read the Meter constants, pulse multiplier, serial number etc, then collects Meter pulses or engineering data for the same HH Settlement Period as provided by the HHDC and calculates the reading.

[50] Ideally this should be the latest Settlement Period for which non-zero data is available. This is to prevent the data from being overwritten in the Meter's memory before the MOA has had time to collect it.

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4.6.3 Comparison of Data.

After a proving test has been undertaken by any of the methods selected above, the MOA then compares the data received from the HHDC to determine a successful or a failed proving test.

4.6.4 Reporting.

The MOA shall report both successful and non-successful proving tests to relevant parties.

4.6.5 Proving Test / Re-Test Timescales.

Proving Test Timescales

A proving test may be undertaken prior to the appointment of the HHDC and / or MOA in the SMRS so long as there is agreement between the Supplier, MOA, HHDC and the customer.

The timescale for carrying out the proving test shall vary depending on the Code of Practice that the MS is assigned to.

It is not necessary that all the steps of the relevant processes are carried out on the same day; the requirement is that the proving test in its entirety is completed by the timescale specified below and subject to the exceptions listed below. The maximum timescale between the initiation of a proving test as a result of the circumstances in 4.6.1 and the successful completion of the proving test by the MOA (by sending the D0214 Confirmation of Proving Tests) to the HHDC is listed below for each CoP.

Re-Test Timescales

Where the proving test has failed, the MOA shall initiate a re-test and the MOA and HHDC should ensure wherever possible that the timescale is the same as for the original proving test.

Extended Proving Test / Re-Test Timescales During the P272 Transition Period

For MS assigned to Code of Practice 10, the ‘extended’ timescale will be applied to any proving test and subsequent re-test where the original proving test is initiated during the period commencing on 5 November 2015 and ending on the last calendar day before the P272 Implementation Date inclusive. The ‘standard’ timescale will be applied where the original proving test is initiated on or before 4 November 2015 or on or after the P272 Implementation Date.

Any MS assigned to any other Codes of Practice will remain subject to standard proving test timescales at all times.

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Timescales

Code of Practice	WD to Complete Proving Test [51]	WD to Complete Re-Test	Total
One	5	5	10
Two	5	5	10
Three	10	10	20
Five	15	15	30
Ten (standard)	15	15	30
Ten (extended)	30	30	60

In the event that timescales are exceeded and the proving test is not completed, the process shall proceed to completion and an audit trail will be maintained by Supplier Agents in order to explain the delay.

4.6.6 Failed Proving Test.

If a proving test has failed, then the Metered Data collected will be flagged as estimated i.e. 'E' flagged. This collected HH Metered Data will continue to be flagged as estimated until a successful proving test is completed.

The MOA and HHDC shall complete the re-test as soon as possible after failure of the original proving test. For a Code of Practice Three related MS, the timescale for completing the proving test may extend beyond the Initial Volume Allocation Run, in which case the rules for Code of Practice Five related MS's shall apply as far as data estimation is concerned.

4.6.7 Non-Completion of Proving Test.

If a proving test is not completed so that proved data can enter Settlements by the due timescales, the actual retrieved HH Metered Data shall be used for Settlements and shall be 'A' flagged until a proving test has been completed. Once a proving test has been completed, the data will be flagged as either estimated or actual i.e. 'A' flagged depending on whether or not there was a successful proving test.

4.7 Inbound Data Comparison Check

Where data is to be sent automatically from the MS Outstation to the HHDC instation for use in Settlement and following a successful Proving Test, the HHDC shall perform a comparison check between one half hour of data received via the inbound method of communication and the equivalent half hour of data received by

[51] The starting date for this time is either the Date of Meter Installation, the Date of Commissioning, the Effective From Date of the Meter, the Effective Date of a Change of Agent as described in Section 4.6.1, or the date when a Metering System becomes energised where there has been a key field change whilst the Metering System was de-energised, whichever is the later.

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interrogating the Outstation. The results of the comparison test shall be recorded for audit purposes and any inconsistency shall be investigated in accordance with section 3.4.2. In the event of any inconsistency the HHDC shall revert to interrogation of the Outstation. In addition, the HHDC shall revert to interrogation of the Outstation, at any time, on request by the Registrant of the MS.

4.8 Meter Advance Reconciliation.

A Meter Advance Reconciliation (MAR) is the reconciliation of the advance on the Meter register between two specific date(s) and time(s) compared with the summation of the relevant Settlement Period data used in Settlement over the same date(s) and time(s).

Care should be exercised where the Meter register reading does not align with the end of a Settlement Period, and this should be taken into consideration in the reconciliation.

4.8.1 Meters with either separate Outstations or integral Outstations which do not provide an electronic cumulative reading of the prime Meter register equivalent to the total consumption or production of the Meter as part of its normal function.

The HHDC shall perform a MAR:

a) at least once every three months for Meters over 100kW; or

b) at least once every twelve months for Meters below 100kW.

Where a change of HHDC has occurred, the new HHDC shall perform a MAR within the first six months of the appointment for Meters below 100kW using the last physical Meter register reading taken on site provided by the old HHDC.

Meter readings recorded from the physical Meter register during a site visit by a Qualified Supplier Agent may be used for the purpose of the MAR under a) or b) above.

Using the Meter register readings taken during any site visit, the following checks shall be performed:

i) Ensure that the HH Metered Data between two different date(s) and time(s), as used in Settlements, sums to the Meter advance from site readings of the prime Meter registers for the same date(s) and time(s), i.e. that the difference between successive cumulative Meter register readings and the total of the Metered Period Data for the same time interval, is within a tolerance of ±0.1%.

Specifically:

∑(pulses * pulse multiplier) for all Meter periods in the time interval = (Meter advance * Meter Multiplier) for the time interval.

The calculation below outlines how the discrepancy should be calculated when performing tolerance checks.

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$$Discrepancy = \left(\frac{\sum HHE - MA}{MA} \right) \times 100\%$$

Where:

∑HHE is the sum of HH Energy volumes in kWh; and MA is the corresponding Meter Advance, i.e.

$MA = M_2 - M_1$

Where:

M2 is the Meter register reading (in kWh) taken during the recent site visit; and M1 is the Meter register reading (in kWh) taken during the site visit prior to the recent site visit (e.g. 3 months prior for a 100kW+ Metering System)

ii) Where a main and check Meter is fitted, the main and check Meter advances are compared for any discrepancy between the two values in excess of 1.5 times the class accuracy requirements for the individual Meters at full load, as defined in the relevant CoP.

If after making allowance for the readings not being taken at the end of the preceding Settlement Period (and other factors such as estimates made during the period of the MAR calculation) the above checks fail, then the failure shall be investigated in accordance with section 3.4.2.

The D0008 'Meter Advance Reconciliation Report' shall be produced for the Supplier (and relevant LDSO if requested) on a monthly basis. This will include:

- MAR confirmation;
- MAR failure; and
- MAR overdue,

for all MS for which a MAR has been, or should have been, carried out during the preceding month.

4.8.2 Meters with integral Outstations which provide an electronic cumulative reading of the prime Meter register equivalent to the total consumption or production of the Meter as part of its normal function.

A MAR is not obligatory providing that the Cumulative / Total Consumption Comparison as described in Appendix 4.1.5 can be carried out. Where the

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Cumulative / Total Consumption Comparison validation cannot be carried out, a MAR shall be performed as described in 4.8.1.

4.8.3 De-energised Meters

Routine MAR is not required for de-energised Meters, on the basis that there is no advance to reconcile.

4.9 Guide to Complex Sites.

A 'Complex Site' means; any site that requires a 'Complex Site Supplementary Information Form' to enable the HHDC to interpret the standing and dynamic Metered Data relating to SVA MSs for Settlement purposes to be provided to the HHDC in addition to the D0268 Half Hourly Meter Technical Details.

The primary electronic data flow between the HHMOA and HHDC for Half Hourly MTD is the D0268 data flow. In the case of Complex Sites, this data flow alone is insufficient to accurately describe to the HHDC how to allocate the various channels of data that should be utilised in Settlements, therefore the D0268 data flow is supplemented with the 'Complex Site Supplementary Information Form'.

The HHMOA should identify a Complex Site by providing a 'Complex Site Supplementary Information Form' in addition to the D0268 data flow to the HHDC and Supplier and indicating in the D0268 data flow that the site is complex. This action shall alert the HHDC to expect a 'Complex Site Supplementary Information Form' from the HHMOA containing details of how to configure the data collection requirements and passing of information to the HHDA and Supplier. The 'Complex Site Supplementary Information Form' should be sent electronically or by any other method agreed.

It is the responsibility of Suppliers to manage and co-ordinate their Agents to achieve compliance and to intervene should any issues arise.

The Supplier should identify to the HHMOA which MSIDs relate to the Import energy and which MSIDs relate to the Export energy.

Where the Complex Site is subject to Shared Meter Arrangements, one D0268 data flow and therefore one 'Complex Site Supplementary Information Form' is required. The D0268 'Complex Site Supplementary Information Form' shall be sent by the HHMOA to the HHDC and the Primary Supplier. The Primary Supplier shall decide whether this information shall be copied to the secondary Supplier(s) and provide this information if required.

In many cases, a Complex Site shall meet the conditions required to apply for a Metering Dispensation as described in BSCP32 'Metering Dispensations'. Where Complex Sites use a MS which is not fully compliant with the relevant Codes of Practice, a Metering Dispensation should be applied for via BSCP32. Once a Dispensation has been granted, the information shall be available for all future Suppliers, so that they shall have the ability to understand the metering configuration at the Complex Site. As part of the dispensation application process, the Supplier shall need to submit a simplified schematic diagram of the Complex Site connection arrangements and the proposed metering points; as required in BSCP32.

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This Appendix 4.9.1 to 4.9.8 provides a non-exhaustive list of Examples of Complex Sites and non-Complex Sites. These examples illustrate the need to create rules that accurately describe the aggregation necessary to derive the total energy for a customer. The aggregation rule contains terms that define each metered quantity at each Meter Point and form part of the total energy. The HHMOA is required to define the terms in the aggregation rule relative to the data.

The HHDC is required to establish gross energy for the site for each Settlement Period. This is achieved by applying the aggregation rule to the metered data values. If the resultant value applied to the rule is positive, the site is Exporting, and the Import value is zero. Conversely, if the result is negative, then the site is Importing, and the Export value is zero. Where the resultant is zero, the site is neither importing nor exporting and both values shall be zero.

When the HHMOA indicates Complex Site on the D0268 data flow, the HHMOA is required to provide all the information necessary, via the 'Complex Site Supplementary Information Form', for the HHDC to aggregate correctly. As part of the supplementary information, the HHMOA is required to provide a schematic diagram of the MS.

Form BSCP514/8.4.8 'Complex Site Supplementary Information Form' provides a means for the HHMOA to convey the information necessary for correct aggregation. BSCP514/8.4.8a gives an overview of the data source and BSCP514/8.4.8b shows the information needed to collect that data.

Where Meter channel data is missing, incomplete or incorrect, the HHDC should attempt to use the associated check data indicated on BSCP514/8.4.8a.

Where duplicated Outstations are provided, two sets of BSCP514/8.4.8a shall be provided each clearly indicating primary and secondary Outstations.

4.9.1 Off-Site Totalisation.

This is an example of a non-complex site, where multiple feeders exist . Each feeder is normally equipped with Code of Practice compliant Meter(s). The HH data is collected and summated off-site by the HHDC and then submitted for Settlement as a single set of HH data.

Where both import and export meters are present, the export meter shall be totalled in the same way as import metering so that both calculations are gross.

For this reason, the netting of Export energy from Import energy should not be carried out. The BSC also states that there must be only one HHMOA for a MS that measures both Export and Import active energy.

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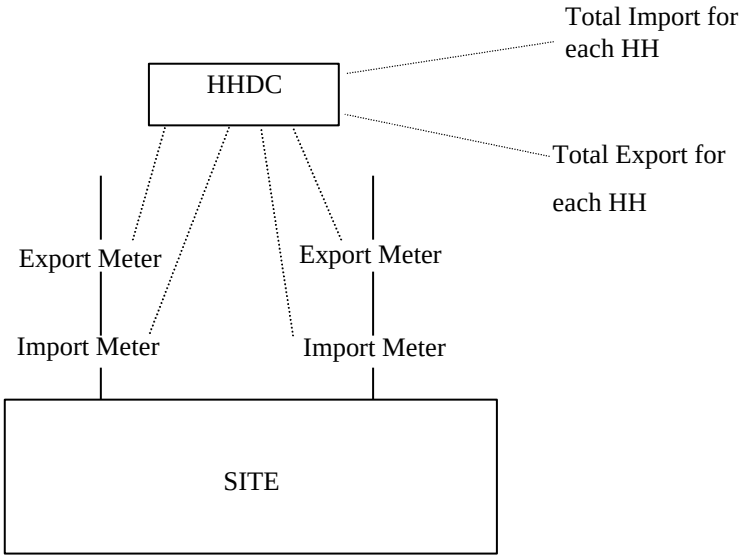

No. of Import MSIDs = 1

No. of Export MSIDs = 1

An alternative would be for each Import or Export Meter to have its own MSID. In this case, totalisation would be carried out by the HHDA as opposed to the HHDC, and the example above would have 2 Import MSIDs and 2 Export MSIDs. This arrangement would be more desirable since it is not a Complex Site and so would not require a Metering Dispensation.

4.9.2 On-Site Totalisation.

This is an example of a non-complex site, where totalisation is possible by intelligent Outstations, this is permitted provided Import and Export data are provided separately to the HHDC and then on to the HHDA for Settlement. In this example, two streams of data are sent from the on-site totaliser to the HHDC, one set of HH data for total Import and one set of HH data for total Export.

Netting of Exports and Imports shall not be permitted at site.

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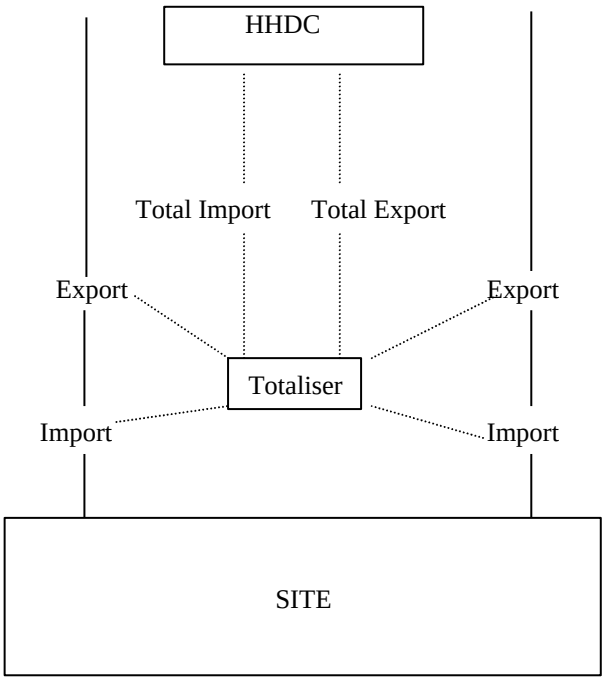

No. of Import MSIDs = 1

No. of Export MSIDs = 1

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4.9.3 Customers on a Licence Exempt Distribution (Private) Networks requiring Third Party Access for a Supplier of their choice

This is an example where one or more customers within a Licence Exempt Distribution Network are supplied with electricity by a third party licensed Supplier and therefore customer have their own MSID. There are two ways the BSC can accommodate this:

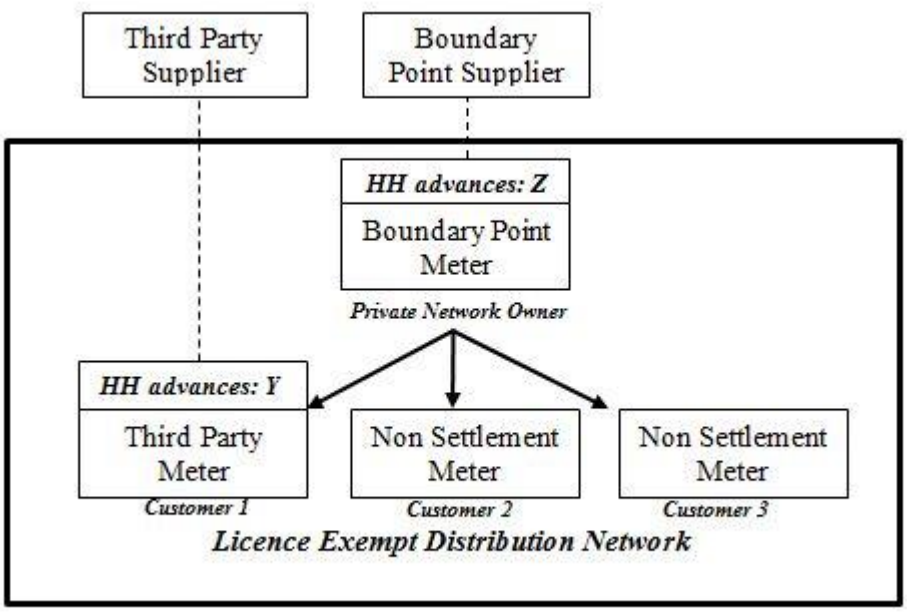
Full Settlement Option

If all customers on the private network have an MSID, a BSC Settlement Metering System with a Supplier of their choice, the private network becomes an 'Associated Distribution System'. MSIDs within an 'Associated Distribution System' will be similar to MSIDs connected to a Licensed Distribution Network, hence the same obligations shall be applicable.

Difference Metering Option

Where one or more customers (not all) have a BSC Settlement Metering System with a Supplier of their choice, this requires the deduction of the consumption through the Third Party Meter(s) from the Boundary Point Meter.

- Customer 1's HH advances: Y
- Private network owner's HH advances (Boundary Point Meter): Z - Y



In the context of a private network, the following terms are defined:

- Boundary Point Supplier: The Supplier appointed at the Boundary Point of the private network; usually appointed by the private network owner;
- Boundary Point Meter: Code of Practice (CoP) Compliant Settlement Meter at the Boundary Point;
- Third Party Supplier: A Supplier appointed by a customer on the private network;

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- Third Party Meter: CoP compliant Settlement Meter for the customer on the private network; and

- Non Settlement Meter: A meter that is not registered for Settlement purposes.

As the Third Party Meters will not be at the Boundary Point, the Registrant for each Metering System must apply for a Metering Dispensation or if available, use any relevant Generic Metering Dispensation.

In order to maintain the integrity of Settlement under these arrangements it will be necessary for Registrants to:

- Be HH Settled;

- Appoint and maintain the same HHMOA as the Boundary Point Supplier;

- Appoint and maintain the same HHDC as the Boundary Point Supplier; and

- Account for electrical losses between the Defined Metering Point (DMP) and the Actual Metering Point (AMP). (DMP and AMP are definitions taken from the CoPs)

There are two options for how losses on a private network may be accounted for:

- By the appropriate application of factors either within the Meters as compensations or within the HHDC system as constants identified within the complex site supplementary information (BSCP514/8.4.9); or

- No adjustment of Third Party Meter HH advances for losses on the private network. This means that all such losses remain the responsibility of the Boundary Point Supplier for BSC purposes (but does not preclude the private network owner from including an allowance for losses on the private network in the use of system charges made to Third Party Suppliers and/or customers).

The HHMOA at the Boundary Point of the private network will need to maintain the complex site supplementary information (BSCP514/8.4.9) to allow the HHDC to correctly difference the consumption between Boundary Point Meters and Third Party Meters.

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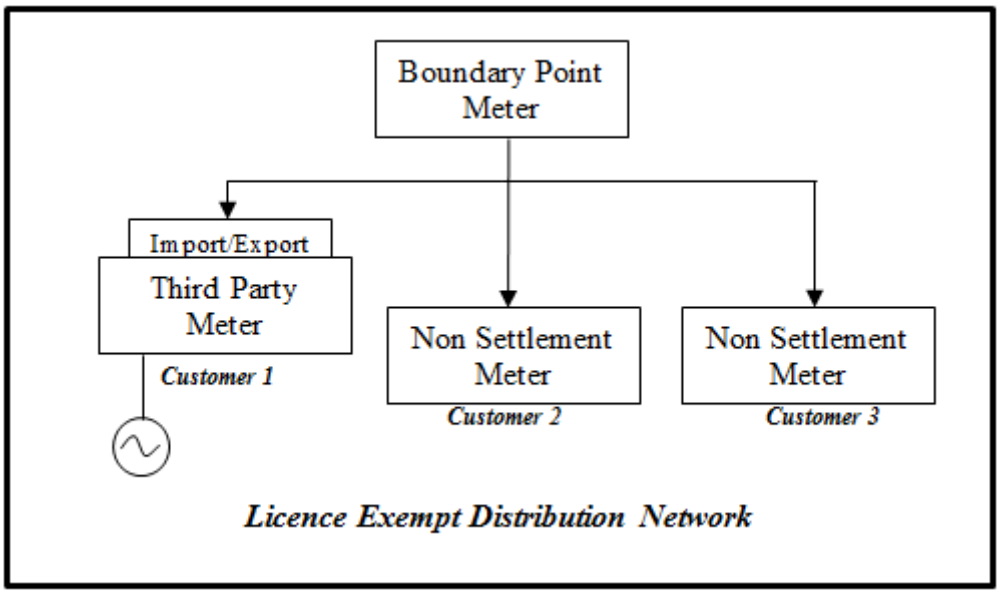
Export on Licence Exempt Distribution Network

On some private networks there may be on-site generation, and therefore the potential for individual customers and/or the private network as a whole to export as well as import. In such cases the possibility of Export will need to be taken into account in the differencing calculation performed by the single HHDC, in order to accurately determine the energy generated that gets used within the private network or exported on the Distribution System, such that each customers can be Settled accurately. The required calculation is essentially the same in all cases, irrespective of the location of the generator within the private network.

The example below illustrates the case in which the customer with generation equipment has opted for third party supply and has an Export MSID.



In this example, one customer on the private network has embedded generation. If customer 1 generates 100kWh active energy and consumes 20kWh, this will leave 80kWh of Active Export onto the private network (which will be recorded on the customer's Export MSID). If the other customers on the private network consume 20kWh each, this will leave 40kWh recorded on the Boundary Point Meter as Active Export to the Distribution System. Therefore, customer 1 will have 80kWh of Active Export entering Settlement, and the HHDC must accurately undertake the differencing to ensure that the 40kWh consumed on site by the two other customers is recognised as 40kWh Active Import and allocated to the Boundary Point Meter. The HHDC will perform the differencing calculation as shown below:

Total Boundary Generation or Demand, $T_{Boundary}$ = (AE at Boundary Point Meter – AI at Boundary Point Meter) – (AE customer 1 – AI for customer 1)

If $T_{Boundary}$ is positive then the Boundary Point Supplier is a net Exporter, and $T_{Boundary}$ should be entered into Settlement as a positive quantity of Active Export.

If $T_{Boundary}$ is negative then the Boundary Point Supplier is a net Importer, and $T_{Boundary}$ should be entered into Settlement as a positive quantity of Active Import.

The required calculation remains the same if it is one of the customers with a Non Settlement Meter who has the generation. In the above example, if the 100kWh of generation belonged

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to customer 3 rather than customer 1, the Settlement meters would record 40kWh of Active Export at the Boundary Point Meter, and 20kWh of Active Import from customer 1. The differencing calculation would be performed as above, and result in a Total Boundary Demand of 60kWh of Active Export.

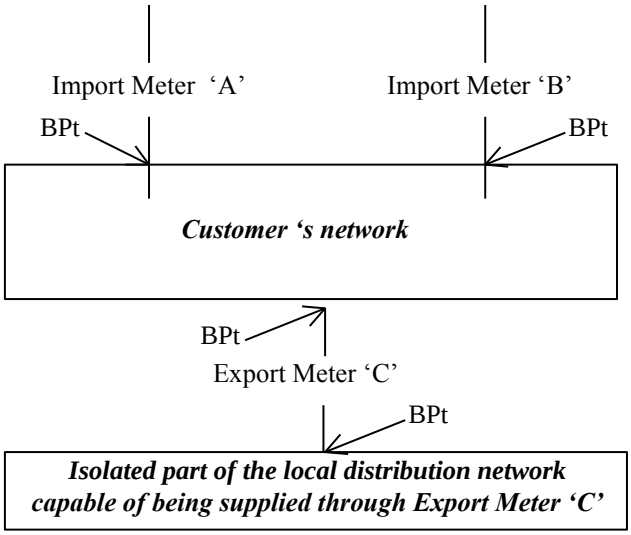
4.9.4 Feed-Through Sites at the Same Voltage with no Embedded Generation.

This is where a customer's network takes supply from the local Distribution System and feeds out from the customer's network at the same voltage to another part of the local Distribution System. In this example there is no embedded generation on the customer's network, and the isolated part of the local Distribution System is either incapable of being fed from any other source than via the customer's network, or would only be supplied from a different source (such as a restricted capacity feed from the main Distribution System) under abnormal conditions.

In this case, line losses within the customer network do not have to be considered since the feed into, and then out of, the customer network are assumed to have insignificant losses.

In this example, since there is no embedded generation, there is considered to be no Export. Import is derived as HH data:

Import Meter A + Import Meter B - Export Meter C.



BPt = Boundary Point

Import to the Customer's network = Import Meter 'A' + Import Meter 'B' – Export Meter 'C'

This is acceptable in SMRS since there is no on-site generation and an Export type Meter, Export Meter 'C', is measuring feed-through energy as opposed to embedded generation Export.

No. of Import MSIDs = 1

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No. of Export MSIDs = 0

Export Meter 'C' may have its own MSID allocated if it is also acting as a demand Meter to another customer, although this would be dealt with separately for Settlements.

4.9.5 Feed Through Sites at Different Voltages.

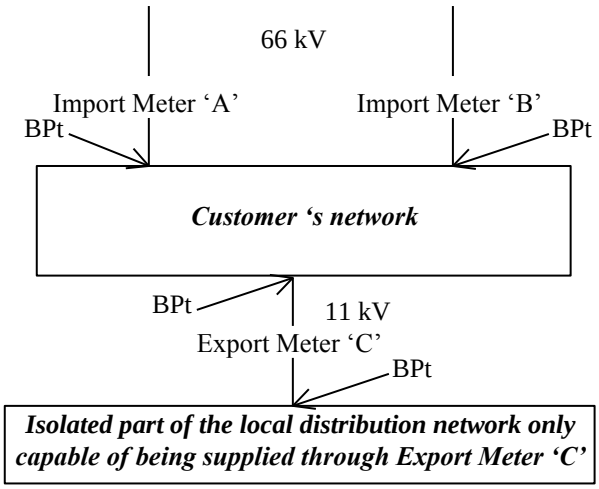
An example is where a factory takes supply at 66kV from the local Distribution System, and an 11kV feeder leaves the Complex Site to supply adjoining premises as part of the local Distribution System. In this example there is no embedded generation within the customer's network.

Voltage specific line losses can be applied to the HH data from Import Meter 'A', Import Meter 'B' and Export Meter 'C' to compensate for the losses incurred in the customer's network for passed through energy.

Totalisation would have to be carried out off-site by the HHDC, and after adjustment for line losses, Import is derived as HH data:

Import Meter A + Import Meter B - Export Meter C.

Since there is no embedded generation, there is considered to be no Export.



BPt = Boundary Point

Import to the Customer's network = Import Meter 'A' + Import Meter 'B' – Export Meter 'C'

This is acceptable in SMRS since there is no on-site generation and an Export type Meter, Export Meter 'C', is measuring feed through energy as opposed to embedded generation Export.

No. of Import MSIDs = 1

No. of Export MSIDs = 0

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Export Meter 'C' may have its own MSID allocated if it is also acting as a demand Meter to another customer, although this would be dealt with separately for Settlements.

4.9.6 Feed-Through Sites with Embedded Generation.

Where a customer's network has a feed through arrangement and has embedded generation within the Complex Site, the Complex Site demand and the true Export has to be determined.

It is assumed that the network supplied through Export Meter 'C' is connected to the local Distribution System through Import Meter 'A' so that customers connected to the isolated part of the local Distribution System preserve system time, i.e. both parts of the Distribution System are in synchronisation (Export generation protection shall prevent 'island generating').

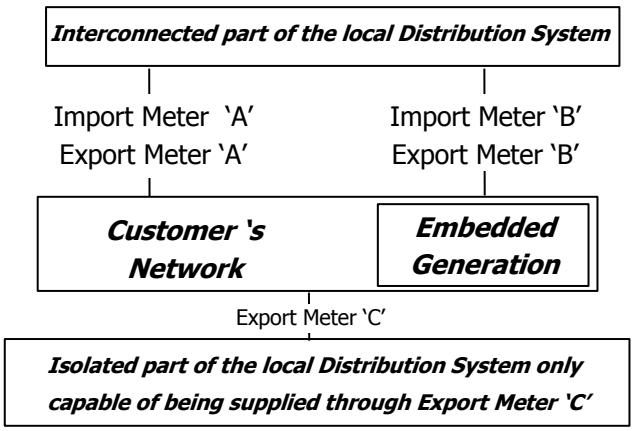
For any time period, for Settlement purposes, Customer's total demand or total generation is derived from the Algorithm:

T_{CUST} = (Export 'A' – Import 'A') + (Export 'B' – Import 'B') + (Export 'C')

If T_{CUST} is positive then the Complex Site is a net Exporter.

If T_{CUST} is negative then the Complex Site is a net Importer.

Both Total Import and Total Export may be non-zero for any HH Settlement Period.



Import to the Customer's network = Import Meter 'A' + Import Meter 'B' – Export Meter 'C'

There is Embedded Generation. Export Meter 'C' can be getting its energy from either Import through 'A'/'B' or from generation. By definition there may be at least 1 Export MSID.

No. of Import MSIDs = 1 or n

No. of Export MSIDs = 0 or n

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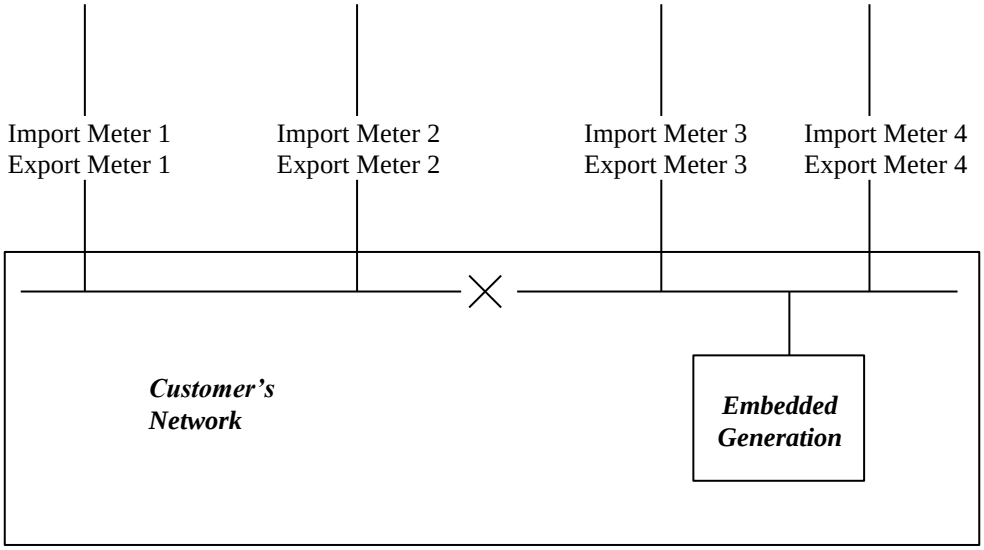
Export Meter 'C' may have its own MSID allocated if it is also acting as an Import Meter to another customer, although this would be dealt with separately for Settlements.

4.9.7 Separate Meter Points for Export and Import.

In this example a customer is connected to a Distribution System via an intake busbar, with each feeder into the factory being separately metered, and with a section of busbar on two feeders having embedded generation connected.

In this case, each Import and Export Meter must be either provide separate sets of HH data into Settlement, or if totalisation is achieved either on-site or by the HHDC, Import and Export HH data must be totalled separately and separate Import and Export sets of HH data provided to Settlement. **Export HH data must not be netted off Import HH data, or vice versa.**

Since this is an extension of the single feed Import / Export arrangement, this does not have to be considered as a 'Complex Site'.



Where totalisation is used:	Where totalisation is not used:
No. Import MSIDs = 1	No. Import MSIDs = 4
No. Export MSIDs = 1	No. Export MSIDs = 4

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4.9.8 Network Flows Impacting Settlement Meters

In some cases it is possible for electrical flows (either on the distribution system or the customer's own network) to be recorded by the Settlement Meters unintentionally. These will usually appear as additional Imports and Exports and usually on different feeders. The diagrams below illustrate this principle. It should be noted that these flows may occur under exceptional circumstances only. It would not be reasonable to regard all multi feeder sites as Complex Sites in anticipation that such flows may exist at some point in the future.

Figure 1 shows an example where a distribution network flow passes through Settlement Meters M2 (as Import) and M1 (as Export). This is in addition to any flow from the distribution system to the customer. Therefore if this site was not considered a Complex Site then the resulting addition of Import Meter readings would not be correct because of the presence of distribution flows through Settlement Meters.

The aggregation rule for such a site might be:

Import = (M1 AE + M2 AE) – (M1 AI + M2 AI)

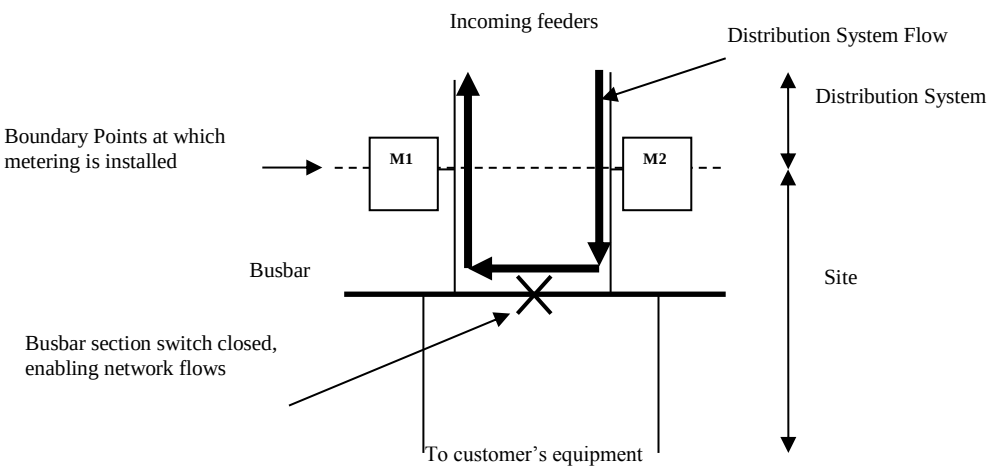

Figure 1. Distribution Network Flows

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Similarly Figure 2 shows an example where the customer is generating a flow which passes through Meter M2 as Export and back into its system via Meter M1 as Import. Exports as well as Imports are accounted for in Settlements therefore it is necessary to apply aggregations to both the Import MSID as well as the Export MSID.

The aggregation rules for such a site might be:

Import MSID = (M1 AE + M2 AE) – (M1 AI + M2 AI) and

Export MSID = (M1 AE + M2 AE) – (M1 AI + M2 AI)

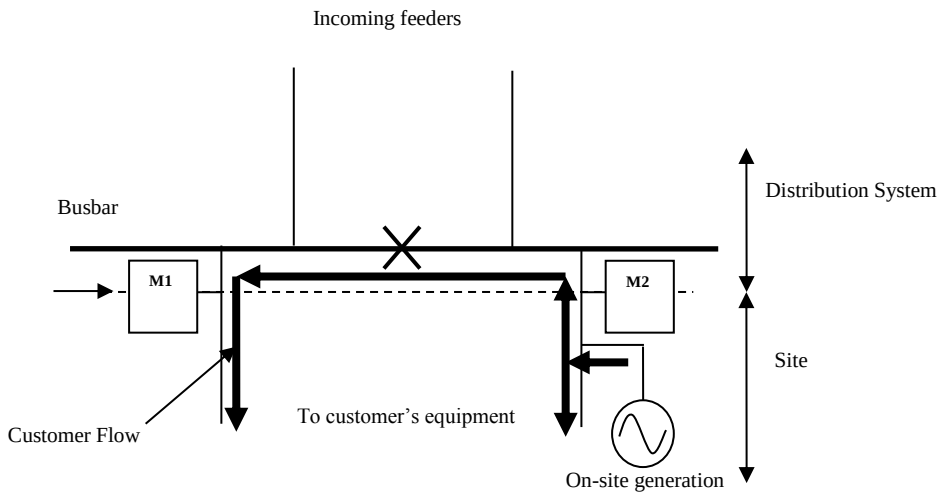

Figure 2. Customer Network Flows

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4.10 Service Levels

The HHDC shall perform the services to be performed by it as HHDC pursuant to this BSCP to standards which shall be at least as good as those specified in this Appendix.

HHDC processes must be capable of providing statistical information to enable monitoring of performance by the Panel in accordance with this Appendix.

This Appendix has effect for the purposes of this BSCP to determine:

i) the functions to be performed by the HHDC, as described in columns 2 to 5 of the table set out in this Appendix, in respect of which minimum standards of performance are required;

ii) the minimum standards of performance (Service Levels) relating to the functions referred to in paragraph (i) above, as described in columns 6 and 7 of the table set out in this Appendix; and

iii) a reference number (Serial) in respect of each Service Level, as described in column 1 of the table set out in this Appendix;

iv) the method by which the HHDC's adherence to the Service Levels is to be measured, as described in column 8 of the table set out in this appendix.

For the purposes of this Appendix:

a) the references in column 3 of the table to a numbered section are to the relevant section in this BSCP;

b) the references in column 4 of the table to a sub-process/data flow are to the relevant sub-process or data flow as described in this BSCP;

c) references to "Timescales" are to those specified by the relevant BSCP and, if applicable, the SVAA Calendar;

d) references to a certain percentage of tasks being completed within a certain specified period are to be read as a reference to that percentage of tasks being completed during an applicable reporting period as specified by the relevant BSC procedure;

e) references to an item being "valid" are to an item which conforms to an applicable SVA Data Catalogue item;

f) reference to an item being in "correct format" are to an item which complies with the applicable SVA Data Catalogue format or the format specified by the relevant BSCP;

g) references to an item being "accurate" are to an item being correctly recorded; and

h) in calculating percentages, the performance figures shall be rounded up or down to the nearest one decimal place (with 0.05 being rounded upwards).

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Serial	Sender	Process	Sub-Process	Recipient	Performance Measure	Service Levels	Reporting Method
HC01	HHDC	3.4 Collection Activities	HH Estimates at RF	HHDA	Extent of estimated data submitted for Final Reconciliation	100% of estimated data at RF to be based upon techniques (a) – (e) as described in BSCP502 Section 4.2	Provision of data under PSL100
HC02	Old HHDC	3.2 Registration Activities	HH Read History to New HHDC	New HHDC	D0036 issued within timescales	100% issued within 5WD of request	Provision of data under PSL100

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