Balancing and Settlement Code

BSC PROCEDURE

NON-HALF HOURLY DATA COLLECTION FOR SVA METERING SYSTEMS REGISTERED IN SMRS

BSCP504

Version 30.0

Date : 28 June 2012

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BSC Procedure 504

relating to

Non-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 504, Version 30.0 relating to Non-Half Hourly Data Collection for SVA Metering Systems registered in SMRS.

3. This BSC Procedure is effective from 28 June 2012.

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

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AMENDMENT RECORD

Version	Date	Description of Changes	CRs Included	Mods Panel Ref
D0.1	Code Effective Date	Re-Badged		
D0.2	Code Effective Date	Incorporate version D.01 review comments		
D0.3	Code Effective Date	Incorporate version D.02 review comments		
D.04	Code Effective Date	Comments embodied following CMC1273		
2.0	Code Effective Date	Approved for use by the Panel		
3.0	Code Effective Date	Version alignment changes from AP504 embodied.	NCR329	
4.0	27/03/01	Further changes embodied for NCR329.	NCR329	
5.0	03/02/03	SVA Documentation Batch Release.	CPs 698, 752, 768, 778, 787, 789, 799	SVG/22/275
6.0	17/02/03	Incorporates changes for P63.	P63	SVG/20/251 SVG/21/256
7.0	01/08/03	Updated for Modification P62.	P62	SVG/29/390
8.0	28/08/03	August SVA Documentation Batch Release.	CP854	SVG/30/397
9.0	28/09/03	Incorporates changes for P81	P81	SVG/31/414
10.0	04/11/03	SVA November 2003 Release.	P107, CP868, CP913, CP922, CP939	SVG/33/442
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12.0	23/02/05	SVA February 2005 Release and BETTA 6.3	CP834, CP844, CP1010, CP1019, CP1020, CP1055, CP1064 and CP1091 BETTA 6.3	SVG/47/004
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14.0	03/11/05	SVA November 2005 Release	CP1036, CP1037, CP1039, CP1107, CP1132, CP1139, P176, P183.	SVG/56/004 SVG/57/002
15.0	23/02/06	SVA February Release	CP1102, CP1122, CP1123, CP1124, CP1125, CP1132[1] CP1133, CP1134, CP1151.	SVG/51/003 SVG/52/002 SVG/53/002 SVG/58/003
16.0	02/11/06	November 06 Release	CP1138 CP1039	SVG/56/003 SVG/44/004
17.0	22/02/07	February 07 Release Updated Following Industry review	P196, CP1165, CP1168, CP1176	SVG/66/04 SVG67/17 ISG68/02

[1] Part of the solution for CP1132 was delivered as part of the SVA November 05 Release.

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Version	Date	Description of Changes	CRs Included	Mods Panel Ref
18.0	28/06/07	June 07 Release Updated terminology in preparation for P197 Release	CP1179 P197	SVG/70/03
19.0	26/06/08	June 08 Release	CP1223 CP1226 CP1230	SVG84/02, ISG84/01, TDC109/01, PAB84/11 SVG85/01 SVG85/02
20.0	06/11/08	November 08 Release	CP1229 CP1234	SVG85/01 SVG87/02 ISG87/02 PAB87/09
21.0	26/02/09	February 09 Release	CP1252 CP1253	SVG93/02 PAB93/10 SVG93/02 ISG93/02
22.0	25/06/09	June 09 Release	CP1256 CP1266 CP1274	SVG93/02 SVG97/02 SVG97/02
23.0	05/11/09	November 09 Release	CP1281	SVG99/02
24.0	25/02/10	February 2010 Release	CP1304 CP1306 CP1308 CP1307 CP1310 CP1312	SVG104/01 SVG104/01 SVG104/01 SVG105/02 SVG105/02 SVG105/02
25.0	31/03/10	Modification P245	P245 Alt	Panel
26.0	24/06/10	June 2010 Release	CP1311	SVG105/02
27.0	01/11/10 04/11/10	November 2010 Release November 2010 Release	CP1325[2] P257[3]	SVG111/01 Panel
28.0	01/07/11	June 2011 Release	CP1334[4]	SVG114/02
29.0	03/11/11	November 2011 Release	CP1335	ISG114/01 SVG114/02
30.0	28/06/12	June 2012 Release	CP1366	SVG134/02

[2] CP1325 was implemented as part of the November 2010 Release on 01 November 2010
[3] P257 was implemented on 04 November 2010
[4] CP1334 was implemented as part of the June 2011 Release on 01 July 2011

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[5] The section numbering used in this Balancing and Settlement Code Procedure must not change in order to keep this document in line with the referencing used in the MRA.

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1. Introduction

1.1 Scope and Purpose of the Procedure

This BSC Procedure defines the processes that the Non-Half Hourly Data Collector (NHHDC) shall use to carry out the collection and processing of Metered Data for Non-Half Hourly (NHH) SVA Metering Systems.

Trading shall be on the basis of SVA Metering Systems with each SVA Metering System being assigned a unique Metering System Identifier (MSID). Settlement of all NHH SVA Metering Systems shall be performed on the basis of profiled Annualised Advances (AAs) (excluding unmetered supplies) and Estimated Annual Consumptions (EACs).

Where there is to be a change in any NHH Supplier Agent (bulk change of agent) such that the number of SVA Metering Systems affected exceeds a threshold set by the BSC Panel, a bulk change of agent application will be submitted for approval in accordance with BSCP513. Following such approval and where the NHHDC is impacted, this BSC Procedure will be used to process the bulk change of agent.

There are ~~two~~ three main areas of functionality:

(i) Data retrieval ~~and data processing~~.

The data retrieval process involves retrieving Meter register readings[6] for NHH SVA Metering Systems and passing them on for use in data processing. ~~The data processing involves validating Meter register readings which are used to derive Meter advances~~.

The NHHDC shall be responsible for collecting the Meter readings, either remotely or locally, of the Import and Export MSID(s) for which it is assigned[STF1]. The NHHDC shall inform the Licensed Distribution System Operator (LDSO) of the collection rota that it maintains. The NHHDC shall inform the Supplier, Meter Operator Agent (MOA) and LDSO of suspected faults found during the collection.

(ii) Data processing

The data processing involves validating Meter register readings which are used to derive Meter advances.

The NHHDC shall treat Import and Export MSIDs the same except for the re-calculation of Load Factors and the identification of 100kW+ demand processes which apply to Import MSIDs only.

[6] Meter readings is a more generic requirement that includes Maximum Demand Indicators and other reading information that is not covered by the term Meter register reading. Only Meter register readings are required for Settlement purposes. Other readings may be required by Suppliers, LDSOs, NHHDCs and MOAs.

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The Effective From Date for a Meter Advance Period shall be set to the date of the first meter reading and the Effective To Date for a meter advance period shall be set to the day before the date of the next meter reading.

Meter advances are used to calculate AAs and EACs and are also stored for audit purposes. For each Meter advance, values are calculated for each Settlement register from the associated Meter registers. In most cases, the Settlement register shall take the advance of the corresponding Meter register. The exception to this is where single phase Meters are being used to measure a polyphase supply and registers on those Meters have the same register periods; this can be treated as a single SVA Metering System (MS). All registers for concurrent periods shall be summed and treated as a single register for the polyphase supply. Another exception is a Meter which has one or more switched registers which collectively are not active all the time. A Settlement register is required for the periods of time in which the individual switched registers are not active. The value for this register is derived by differencing.

The NHHDC shall be responsible for taking action to correct incorrectly mapped registers on SVA multi-rate Meters.

Each year in May for all non-domestic MSIDs where a Maximum Demand is recorded, the NHHDC shall in accordance with BSCP516, identify and calculate the annual Load Factor, and the Profile Class applicable to that Load Factor. The NHHDC shall then inform the Supplier of the required Profile Class change where the calculation shows that the Profile Class has changed.

~~(ii)~~

(iii) Calculation of AAs and EACs.[7]

The NHHDC passes:

(a) the MAPs for each SVA MS

(b) the active registration details during the MAP and

(c) a Meter advance and previous EAC for each Settlement register

to the AA/EAC calculation process. The registration details include MSID, GSP Group, Profile Class, Standard Settlement Configuration (SSC), the effective from and to Settlement dates and also the Time Pattern Regime (TPR) details for each Settlement register.

The Supplier Volume Allocation System (SVAS) provides a Daily Profile Coefficient for each valid combination of GSP Group,

[7] The NHHDC system will manage both positive and negative AA/EAC values.

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Profile Class, SSC and TPR. Two values are then calculated from this data, the AA and EAC.

This BSC Procedure focuses on the interfaces between the NHHDC and other Agencies seen from the perspective of the NHHDC.

This BSC Procedure, in respect of Unmetered Supplies, only covers the obligations of the NHHDC and the Non-Half Hourly Data Aggregator (NHHDA) regarding Unmetered Supplies Operator (UMSO) provided EACs; all other Unmetered Supplies requirements are covered in BSCP520.

In this BSCP, any reference to Meter Technical Details means all technical details (including Outstation channel mapping) of a Metering System required to enable metered data to be collected and correctly interpreted from that Metering System. For the avoidance of doubt this includes, but is not limited to~~,~~ the following:

For smart meters, the items listed in the Data Interface flows:

- DXXX Meter Asset Details
- DYYY Meter Configuration Details

For all other meters, the items listed in the Data Interface flows:

- D0150 Non Half Hourly Meter Technical Details
- D0149 Notification of Mapping Details and
- D0313 Auxiliary Meter Technical Details (where appropriate)

~~the items listed in the Data Interface flows D0150: Non Half Hourly Meter Technical Details, D0149: Notification of Mapping Details and (where appropriate) D0313: Auxiliary Meter Technical Details.~~ For NHH Metering Systems that can be read remotely, this also includes all appropriate information required by the NHHDC to retrieve data from the Metering System remotely. This may include, but is not limited to, the communications and security details of the Metering System and the Code of Practice of the Metering System installed.

1.1.1. NHHDC BSC Requirement Specifications

This BSCP has been produced in accordance with the provisions of the Balancing and Settlement Code (the Code), in particular the provisions of Annex S-2 'Supplier Volume Allocation Rules' section 4.3 'NHHDC'. Some of the requirements for NHHDC are considered below. This list is not comprehensive and all NHHDC are responsible for ensuring that all provisions of the Code and/or any CSD that impact or apply to them are adhered to.

For each Metering System that the NHHDC is responsible for, the NHHDC will:

- Collect the Metered Data (in accordance with this BSCP);
- Check the Metered Data and provide reports (in accordance with this BSCP);
- Enter the Metered Data in kWh into the relevant data collection system and calculate Meter Advance values for each Settlement Register;

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- receive Daily Profile Coefficients from the SVAA;
- Investigate inconsistencies in EAC/AA data as provided by the NHHDA, MOA or Supplier;
- Update standing entries and Meter Technical Details to take account of new information;
- Determine EAC and AA data;
- Provide AA data including their Effective From and To Settlement dates, EAC data including their Effective From Settlement date and Metering system details to the NHHDA;
- Provide validated Metered Data and Metering System Reports to the Supplier and LDSO;
- Calculate a Meter Advance or Deemed Meter Advance values for each Settlement Register, in accordance with Annex S-2 of the BSC and this BSCP);
- For a change of Supplier, the old Supplier and old NHHDC shall provide historical data as required by the BSC Annex S-2 and this BSCP to the new Supplier and new NHHDC;
- For Unmetered Supplies which are not subject to Equivalent Metering, the NHHDC shall set values of EAC to be defined in the relevant UMS (Unmetered Supply) certificate, pass such values unadjusted to the NHHDA responsible for such Unmetered Supply, together with the Effective from Settlement Dates of the EAC; and
- When advised by a Supplier that a site is Long Term Vacant site, calculate a Metered Advance or Deemed Meter Advance and an EAC for each Settlement Register and thereafter replace the EAC with an EAC of zero value. When a site can no longer be treated as Long Term Vacant, calculate Metered Advance, a Deemed Meter Advance and an EAC for each Settlement Register and use these to replace the zero value EAC for future calculations.

In the event of an inconsistency between the provisions of this BSCP and the Code, the provisions of the Code shall prevail.

[This section would be updated to reflect changes made to Annex S-2 of the Code]

1.2 Main Users of Procedure and their Responsibilities

This BSC Procedure should be used by Suppliers and their agent(s) (including MOAs, NHHDAs and NHHDCs), the Supplier Volume Allocation Agent (SVAA), and each LDSO).

1.2.1 Non-Half Hourly Data Collector Responsibilities

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The appointment of a NHHDC in SMRS by the Associated Supplier to a SVA MS is effective from a specified calendar day. From that calendar day onwards the NHHDC is responsible for all Settlement Days (SDs) within the period of its Associated Supplier's registration, until superseded by a new NHHDC, providing there is no Change of Measurement Class (CoMC) from Non-Half Hourly (NHH) to Half Hourly (HH) metering or vice versa. If there is a CoMC, there will be no transfer in responsibility or historic data from the old NHHDC to the new HHDC or vice versa.

The NHHDC shall use systems and processes approved in accordance with BSCP537 which are capable of processing the following:

- Positive and negative Meter advances;
- Positive and negative EACs and AAs;
- Positive and negative Daily profile coefficients.

These systems and processes must comply with all other applicable requirements set out in the Code, the Supplier Volume Allocation Rules, the Party Service Line (PSL100) and the relevant BSCP.

The equipment/system communicating with any AMR Meter shall be set in accordance with the Co-ordinated Universal Time (UTC) at least once every day.

The NHHDC shall provide data for any adjustments to Volume Allocation Runs required in accordance with BSCP11.

The NHHDC shall record all meter readings collected or received for each SVA Metering System (relating to Import consumption and/or Export generation) for which it is responsible. Such meter readings may be:-

a. Collected as a regular schedule read;

b. Collected when a meter reading is obtained outside the collection schedule agreed by its Associated Supplier;

c. Collected by an outgoing Non-Half Hourly Data Collector and passed to the incoming Non-Half Hourly Data Collector as the change of Supplier meter reading;

d. Received when Customer own meter readings are provided by its Associated Supplier or Customer;

e. Received when prepayment meter readings are provided by its Associated Supplier;

f. Deemed readings established on appropriate occasions;

g. Received when initial or final readings are provided by the Associated Meter Operator Agent or related LDSO;

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h. Received when final readings are provided by the incoming NHHDC on a change of Supplier; and

i. Received when estimates of a change of Supplier read generated by the old Supplier are provided by its Associated Supplier.

The NHHDC shall ensure that, for each SVA Metering System for which it is responsible, the metering data for Settlement and for use by the LDSO is retrieved from the SVA Metering System, and is validated, processed and transmitted to its Associated NHHDA and the relevant LDSO, in each case using systems and processes so approved in accordance with BSCP537 and in time for the related Final Reconciliation Volume Allocation Run.

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The NHHDC shall ensure:-

a. That the Metering System and register being read are the ones intended to be read.

b. The Settlement register reading shown on the display of the Metering System is consistent with the value that is entered into Settlement i.e. data integrity exists between the readings obtained remotely and readings obtained locally[8].

c. That readings used for Settlement purposes are passed from the Metering System to the NHHDC, logically unchanged, and that suitable controls are in place such that the final format of the data and the manner in which it is interpreted are consistent and accurate8. The NHHDC shall validate in accordance with section 4.2 (Validate Meter Data) and process all readings collected (or received) in accordance with paragraph 1.2.1 above. The process shall be followed except in the case of readings from pre-payment and/or remotely read Metering Systems where the provisions of sections 4.11 and 4.20 shall apply.

1.2.2 Service Availability

The NHHDC shall ensure that all the services described in this BSC Procedure are performed in accordance with Good Industry Practice including but not necessarily limited to performing its services in such a manner and within such time period as will allow its Associated Supplier to fulfil its obligations as a Supplier under the Code in accordance with the SVAA Calendar.

1.2.3 Service Levels

The NHHDC shall perform the services to be performed by it pursuant to this BSCP to standards at least as good as those specified in Appendix 4.

1.2.4 Not Used.

1.2.5 On expiry or termination of NHHDC's appointment.

On expiry or termination of the NHHDC's appointment, and upon request, the old NHHDC shall transfer sufficient data and other information to the new NHHDC to carry out its functions. The old NHHDC shall cooperate with the new NHHDC, and any subsequent new NHHDC, to correct any errors relating to data associated with the old NHHDC's period of appointment. In all cases the new NHHDC will retain an auditable record of any changes to the data. The requirements for this are set out in Appendix 4.8 - Historical Data Requirements.

Where information has not been provided to the old NHHDC then the old and new NHHDC(s), along with the Supplier, shall work together to resolve the issue.

[8] This requirement is to be met through software and data transfer controls and not by performing individual checks on a per-Metering System basis

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Following de-appointment by the Associated Supplier, the old NHHDC shall retain the responsibility for instruction files sent to the Associated NHHDA until all outstanding instructions have been processed correctly. Additionally the old NHHDCs obligations under PSL100 Section 10.2 -10.3 shall survive.

On expiry of or termination of the NHHDC's appointment as a result of a Half Hourly Data Collector (HHDC) being appointed, the NHHDC shall not transfer historical data to the new HHDC.

1.2.6 Access Control and Data Security

Controls shall exist to ensure that the data held by the NHHDC remains confidential. This means that access to the data should only be permitted for people whose job responsibilities include the operation or support of NHH data collection. The NHHDC will record all the information it collects or receives.

The NHHDC may only adjust Meter register readings considered to be in error, in the circumstances set out in Appendix 4.6 - Manual Adjustment of Meter Reading(s).

Where the same Metering Equipment (ME) is being utilised for the measurement of the Import 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 Active Energy for more than MSID, the Supplier(s) shall ensure that the same NHHDC is appointed for all of MSIDs involved. These obligations shall be fulfilled by mutual agreement between the Suppliers involved.

1.2.7 Estimated Annual Consumption/Annualised Advance controls

The following controls shall exist in relation to Estimated Annual Consumption/Annualised Advance:

1) The process of loading Daily Profile Coefficients must ensure that initial sets of Daily Profile Coefficients are loaded in date sequence and without gaps. Revised sets of Daily Profile Coefficients will not be subject to this control as they are only produced in the event of an error in the initial set.

2) The system operated by the Non-Half Hourly Data Collector must be capable of checking the record count and sum values provided on the input files from the Supplier Volume Allocation Agent to ensure that data has been received correctly and accurately.

3) The system operated by the Non-Half Hourly Data Collector must not allow Daily Profile Coefficients to be modified, other than by the Receive Daily Profiles process.

4) An enquiry screen will be provided to allow the Non-Half Hourly Data Collector to check the latest Settlement Date for which Daily Profile Coefficients have been loaded.

5) The Estimated Annual Consumption/Annualised Advance calculation processes must ensure that the number of Estimated Annual

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Consumptions/Annualised Advances or Deemed meter advances calculated in a given run is equal to the number of requests received less the number of requests rejected owing to errors.

6) A count of the Annualised Advances calculated using each set of Daily Profile Coefficients must be maintained. Whenever a set of Daily Profile Coefficients is loaded, the system must report the number of Annualised Advances calculated using the previous set of Daily Profile Coefficients for the same Settlement Date. This will allow the Non-Half Hourly Data Collector to check that the correct number of meter advances re-submitted.

7) The system must provide record count and check sum values on output files to the Non-Half Hourly Data Aggregator, to allow the Non-Half Hourly Data Aggregator to check that data has been received correctly and accurately.

1.3 Use of the Procedure

Throughout this procedure, timetables reflect the number of Working Days (WD) within which an activity should be completed within the Supplier Hub. However, if there is an interaction between the NHHDC and SVAA, then the number of days are specified in SDs.

In addition, the NHHDC collects, processes and sends consumption data to the NHHDA in kWh.

The NHHDC will be informed via BSCP513 of any Supplier's intention to initiate a bulk change of agent where the number of Metering Systems affected exceeds the threshold set by the Panel. The NHHDC will be required to confirm whether it can implement the proposed changes without adversely impacting other NHHDC activities. Any bulk change of agent must therefore be initiated via BSCP513 before triggering the processes in this BSC 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 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 - Appendix: this section contains supporting information.

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

1.4 Balancing and Settlement Code Provision

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

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the provisions of this BSC Procedure and the Code, the provisions of the Code shall prevail.

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1.5 Associated BSC Procedures

BSCP01	Overview of Trading Arrangements
BSCP11	Trading Queries and Trading Disputes
BSCP502	Half Hourly Data Collection for SVA Metering Systems Registered in SMRS
BSCP505	Non-Half Hourly Data Aggregation for SVA Metering Systems Registered in SMRS
BSCP508	Supplier Volume Allocation Agent
BSCP513	Bulk Change of Non-Half Hourly Supplier Agent
BSCP514	SVA Meter Operations for Metering Systems Registered in SMRS
BSCP516	Allocation of Profiles and SSCs for Non-Half Hourly SVA Metering Systems Registered in SMRS
BSCP520	Unmetered Supplies Registered in SMRS

1.6 Acronyms and Definitions

1.6.1 Acronyms

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

AA(s)	Annualised Advance(s)
BSC	Balancing and Settlement Code
BSCCo	Balancing and Settlement Code Company
CoMC	Change of Measurement Class
CoP	Code of Practice
CoS	Change of Supplier
CT	Current Transformer
CTCU	Central Teleswitching Control Unit
DTS	Data Transfer Service
EAC(s)	Estimated Annual Consumption(s)
GSP	Grid Supply Point
HH	Half Hourly
HHDC	Half Hourly Data Collector
HV	High Voltage
Id	Identifier
kVA	Kilo-Volt-Amperes
kW	Kilowatt
kWh	Kilowatt Hour
LDSO	Licensed Distribution System Operator
LF	Load Factor
LTV	Long Term Vacant
MAP	Meter Advance Period
MC(s)	Measurement Class(es)
MD	Maximum Demand
MDD	Market Domain Data
MDDM	Market Domain Data Manager
MDR	Maximum Demand Register
ME	Metering Equipment
MOA(s)	Meter Operator Agent(s)
MS	Metering System

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MSID	Metering System Identifier
MTD	Meter Technical Details
NHHDA(s)	Non-Half Hourly Data Aggregator(s)
NHHDC(s)	Non-Half Hourly Data Collector(s)
NOSI	Notification of Old Supplier Information
PA	Profile Administrator
PC	Profile Class
PFSR	Post Final Settlement Run
PoS	Point of Sale (or early reading)
Ref	Reference
RF	Reconciliation Final (Final Reconciliation Run)
RPS	Revenue Protection Service
SAR	Supplier Agreed Read
SD	Settlement Day
SFIC	Systems Fault Information Centre
SSC(s)	Standard Settlement Configuration(s)
SSD	Supply Start Date
SVAA	Supplier Volume Allocation Agent
SVAS	Supplier Volume Allocation System
TPR(s)	Time Pattern Regime(s)
UMS	Unmetered Supplies
UMSO	Unmetered Supplies Operator
WD	Working Day

1.6.2 Definitions

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

Deemed Meter Reading	A Meter reading calculated by adding or subtracting a Deemed Meter Advance from a Meter register reading.
Supplier Agreed Reading	A Meter reading which is agreed between the new Supplier and the old Supplier in accordance with Annex S-2 4.2.1(c)(i) of the Code, and in the specific circumstances when a CoS (Change of Supplier) Reading has not been obtained at least 30WD after the CoS but no more than 12 months after the CoS (i.e. not a disputed read or an old Supplier Estimated read).
Point of Sale Reading	A Meter reading obtained by the new Supplier during the period between the customer entering into the contract and the start of the CoS meter reading window.
Last Valid EAC	defined in section 4.5
Crystallised Period	defined in section 4.14
Error Freezing Reading	defined in section 4.14
Fluid Period	defined in section 4.14
Realistic Reading	defined in section 4.14
RF Window	defined in section 4.14

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 Data.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.1.1	If required.	Request MDD.	NHHDC.	MDDM.	NHHDC Id.	Electronic or other method, as agreed.
3.1.1.2	When published by SVAA or within 1 WD of request from NHHDC.	Send MDD.	SVAA.	NHHDC.	D0227 BSCCo Market Domain Data File. D0269 Market Domain Data Complete Set. D0270 Market Domain Data Incremental Set. P0190 GSP Group Profile Class Tolerances.	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.	NHHDC.	MDDM.	P0024 Acknowledgement.	Electronic or other method, as agreed.
3.1.1.4	As and when needed	Record and use MDD as is considered appropriate by the Panel (having regard to the NHHDC's functions) and in particular, use only MDD for those items in relation to which there is a Market Domain Data entry.	NHHDC.			Internal Process.
3.1.1.5	If file not readable and / or incomplete.	Send notification and await receipt of MDD.	NHHDC.	MDDM.	P0035 Invalid Data.	Electronic or other method, as agreed.
3.1.1.6	After receiving notification.	Send corrected MDD. Return to 3.1.1.2.	SVAA.	NHHDC.	Refer to 3.1.1.2 for data flows.	Electronic or other method, as agreed.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.1.7	As soon as possible after data in correct format.	Update database.	NHHDC.			Internal Process.
3.1.1.8	On receipt of new Market Domain Data.	Ensure that all MDD affecting the accuracy of Settlement which is manually entered by the NHHDC is validated against the source data supplied by the SVAA, before the data is recorded and used.	NHHDC			Internal Process
3.1.1.9	In the event of a dispute.	In the event of any dispute as to whether an item of Market Domain Data 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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3.1.2 Process Daily Profile Coefficients received from SVAA.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.2.1	On demand when appointed to SVA MS.	Request and record relevant Daily Profile Coefficients in accordance with BSCP508.	NHHDC.	SVAA.	P0040 Request Daily Profile Coefficient Data.	Manual Process.
3.1.2.2	a) After Profile Production Run - by 5:00pm on SD+1 or b) Re-submit or withdraw profiles already sent or c) Upon request from NHHDC via 3.1.2.1.	Send accepted Daily Profile Coefficients, for the Settlement Day(s)[9] for one or more GSP Group(s). The data flows produced and sent will contain data which is a number of days in arrears of the Settlement Day to which they relate.	SVAA.	NHHDC. Supplier.	D0029 Standard Settlement Configuration Report. D0039 Daily Profile Coefficient File D0018 Daily Profile Data Report. D0029 Standard Settlement Configuration Report. P0043 Teleswitch Report.	Electronic Interface.
3.1.2.3	If required.	Request Standing Profile Data Report	NHHDC, Supplier	SVAA		Manual Process.
3.1.2.4	Following 3.1.2.3	Send Standing Profile Data Report by manual method.	SVAA	NHHDC, Supplier	D0028 Standing Profile Data Report	Manual Process

[9] Normally a single file (type 1 file) will be loaded for each Settlement Day, which will invalidate any previous data for that Settlement Date. However, the AA/EAC system will also support the loading of files for up to 2 years (type 2 file), in order to allow for the NHHDC being appointed to a SVA MS in another GSP Group, which will not invalidate any previous data.

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3.2 Registration Activities.

3.2.1 Supplier requests New Connection - Metered Supply.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.1.1	On appointment of a new NHHDC	Send notification of appointment and associated Agent details to the NHHDC.	Supplier[10].	NHHDC.	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms. D0302 Notification of Customer Details	Electronic or other method, as agreed.
For legacy meters						
3.2.1.2	Within 10 WD of completion of Meter installation.	Send NHH Metered Data, including MTD, energisation status and initial Meter register reading, where obtained.	MOA.[11]	NHHDC. NHHDC, Supplier, LDSO. NHHDC Supplier	D0010 Meter Readings. D0149 Notification of Mapping Details. D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20)	Electronic or other method, as agreed.
For smart meters						

[10] The Supplier will state the class and type of SVA MS required and the data collection period for each SVA MS. The NHHDC shall immediately notify the Supplier if these details are not sufficient to collect metering data

[11] Whenever installing new, replacement and re-configured NHH meters or carrying out work requiring the re-registration of the metering system, the MOA shall ensure that the meter registers are clearly identified and that the Meter Register ID (J0010) used in all relevant DTN data flows (e.g. D0149 and D0150) clearly identifies the registers on the metering asset read. See BSCP514 for details.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
	Within 10 WD of meter installation	Send Meter Technical Details and initial Meter register reading	Supplier	NHHDC	DXXX Meter Asset Details DYYY Meter Configuration Details D0010 Meter Readings	Electronic or other method, as agreed.
For all meters						
3.2.1.3	Within 5 WD of receipt of ~~D0150~~ Meter Technical Details from the MOA	Send SVA Metering System details, including initial (class average) EAC to the NHHDC.	Supplier	NHHDC SMRA	D0052 Affirmation of Metering System Settlement Details. D0205 Update Registration Details See Appendix 4.12 – Usage and Validation of Affirmation of Metering System Settlement Details (D0052) Flow.	Electronic or other method, as agreed.
3.2.1.4	On receipt of D0052 and Meter Technical Details~~D0150~~	Validate D0052. Check for discrepancies between the Metering System Settlement Details provided by the Supplier and the Meter Technical Details provided by the MOA.	NHHDC		See Appendix 4.12 – Usage and Validation of Affirmation of Metering System Settlement Details (D0052) Flow	Internal
3.2.1.5	On appointment of a new NHHDC	Validate details of each SVA Metering System against MDD supplied by the SVAA.	NHHDC			Internal Process.
3.2.1.6	If D0052 invalid	Send notification of invalid Metering System Settlement details to Supplier	NHHDC	Supplier	D0310 Notification of Failure to Load or Receive Metering System Settlement Details[12]	Electronic or other method, as agreed.

[12] Manual rejection solutions agreed by both the Supplier and NHHDC may be used in place of the D0310 flow.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.1.7	On receipt of D0310	Supplier should resolve the problem by re-sending or revising the D0052 as required or by instructing the MOA to re-send the D0150.	Supplier	NHHDC SMRA	D0052 Affirmation of Metering System Settlement Details. D0205 Update Registration Details As required	Electronic or other method, as agreed.
3.2.1.8	On receipt of valid D0052	Send the initial (class average) EAC for each Settlement register of the SVA MS to the NHHDA. Process EAC/AA data in accordance with section 3.5.	NHHDC.	NHHDA.	D0019 Metering System EAC/AA Data.	Electronic or other method, as agreed.
3.2.1.9		Process and validate Meter register reading.	NHHDC.		Appendix 4.2 - Validate Meter Data, Appendix 4.6 – Manual Adjustment of Meter Reading(s).	Internal Process.
3.2.1.10	If invalid Meter register reading.	Produce and send Invalid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.2.1.11	If valid Meter register reading.	Produce and send Valid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.2.1.12	If required and no valid Meter register reading received within 10 WD of the installation of the Meter	Request initial Meter register reading	NHHDC	MOA, Supplier		Post / Fax / Email
3.2.1.13	Within 10WD of 3.2.1.12	Send initial Meter register reading	MOA, Supplier	NHHDC[13]	D0010 Meter Readings	Electronic or other method, as agreed

[13] If more than one Meter register reading is provided, the NHHDC shall process and use the first reading provided.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.1.14	If required and at least 10 WD after 3.2.1.12 and by 10WD before the Final Reconciliation Run for the relevant Settlement Date, if no valid initial Meter register reading has been received	Deem initial Meter reading in accordance with Appendix 4.5 and calculate associated EAC / AA(s)	NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.2.1.15	Following 3.2.1.14	Send Deemed Meter Reading	NHHDC	Supplier, LDSO	D0010 Meter Readings	Electronic or other method as agreed

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3.2.3 Change of NHHDC for an existing SVA Metering System not concurrent with a Change of Supplier[14].

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.3.1	By 12 WD prior to effective date of DC appointment.	Send notification of appointment.	Supplier.	New NHHDC.	D0155 Notification of New Meter Operator or Data Collector Appointment and Terms.	Electronic or other method, as agreed.
3.2.3.2	By 7 WD prior to effective date of DC appointment.	Send confirmation of appointment acceptance.	New NHHDC.	Supplier.	D0011 Agreement of Contractual Terms.	Electronic or other method, as agreed.
3.2.3.3	By 5 WD prior to effective date of DC appointment.	Send associated Agent details.	Supplier[15].	New NHHDC, MOA	D0148 Notification of Change to Other Parties. D0302 Notification of Customer Details	Electronic or other method, as agreed.
3.2.3.4	By 3 WD prior to effective date of DC appointment.	Send notification of de-appointment.	Supplier.	Old NHHDC[16].	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other method, as agreed.
3.2.3.5	Between –7 WD and the de-appointment date.	Send request to provide Meter register reading and associated AA/EAC history to new NHHDC.	Supplier.	Old NHHDC.	D0170 Request Metering System Related Details.	Electronic or other method, as agreed.

[14] Where a bulk change of agent is being initiated, BSCP513 must have been completed prior to triggering this process.
[15] The Supplier will inform the MOA that the NHHDC has been appointed, via D0148 Notification of Change to Other Parties, and this notification will take place prior to step 3.2.3.4.
[16] The old NHHDC will retain responsibility for the MSID until all instructions generated have been accepted and applied by the NHHDA.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.3.6	Within 5 WD of de-appointment[17].	Send Meter register reading and associated AA/EAC history[18]. In addition, if an actual or customer Meter register reading(s) is obtained by 8WDs (i.e. profile coefficients have been received) before the appointment date change, then this reading(s) will be validated and processed prior to it being sent to the new NHHDC. If an actual or customer Meter register reading(s) is obtained but less than 8WDs before the appointment date change, then this reading(s) will, wherever possible, be validated and sent to the new NHHDC.	Old NHHDC.	New NHHDC.	Appendix 4.8 – Historical Data Requirements. D0010 Meter Readings. D0152 Metering System EAC/AA Historical Data.	Electronic or other method, as agreed.
3.2.3.7	Within 1 WD of 3.2.3.6.	If Meter register reading and associated AA/EAC history not received as expected, request this data.	New NHHDC.	Supplier[19] or old NHHDC	D0170 Request for Metering System Related Details.	Electronic or other method, as agreed.
3.2.3.8	Within 1 WD of 3.2.3.7.	Send Meter register reading and associated AA/EAC history.	Old NHHDC or Supplier[19]	New NHHDC.	Appendix 4.8 – Historical Data Requirements. D0010 Meter Readings. D0152 Metering System EAC/AA Historical Data.	Electronic or other method, as agreed.

[17] The old NHHDC will send the meter register reading and associated EAC/AA history on request via a D0170, irrespective of whether a 'Termination of Appointment or Contract by Supplier' (D0151) flow has been received from the Supplier. Where no D0151 flow has been received, the de-appointment date can be derived from the 'Date Action Required By' (J0028) data item on the D0170 flow.

[18] If the old NHHDC receives Meter register reading(s) from the MOA after history has been passed to the new NHHDC, then the old NHHDC will manually inform the MOA that the Meter register reading(s) will need to be sent by the MOA to the new NHHDC.

[19] The Supplier will provide this data either directly or via the old NHHDC.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.3.9	If further meter readings are received by the old NHHDC after historical information has been transferred to the new NHHDC	Old NHHDC to send additional information to the New NHHDC	Old NHHDC	New NHHDC		Electronic or other method, as agreed.
3.2.3.10	If required	Request SVA MS data	NHHDC	Supplier	D0170 Request for Metering System Related Details	Electronic or other method, as agreed
3.2.3.11	Only following 3.2.3.10 or if concurrent change of MS Settlement Details	The Supplier will provide this data to the new NHHDC via the D0052 Affirmation of SVA MS Settlement Details.	Supplier	New NHHDC SMRA	D0052 Affirmation of Metering Settlement Details D0205 Update Registration Details See also Appendix 4.12 - Usage and Validation of Affirmation of Metering System Settlement Details (D0052) flow.	Electronic or other method, as agreed
For legacy meters						
3.2.3.12	Following request from Supplier and within 10 WD of effective date of DC appointment.	Send current MTD. Send details of any current faults.	MOA.	New NHHDC.	D0149 Notification of Mapping Details. D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20) D0002 Fault Resolution Report or Request for Decision on Further Action	Electronic or other method, as agreed.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.3.13	Within 1 WD of 3.2.3.10.	If MTD not received as expected, request this data.	New NHHDC.	MOA.	D0170 Request for Metering System Related Details.	Electronic or other method, as agreed.
3.2.3.14	Within 1 WD of 3.2.3.11 request from new NHHDC.	Send current MTD.	MOA.	New NHHDC.	D0149 Notification of Mapping Details. D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20)	Electronic or other method, as agreed.
3.2.3.15	As soon as practical.	Confirm inclusion of SVA MS in Meter register reading schedule.	New NHHDC.	Supplier, LDSO.	D0012 Confirmation of the Inclusion of the Metering Point in the Reading Schedules.	Electronic or other method, as agreed.
For smart meters						
	Within 10WD of effective date of DC appointment	Send current MTD. Send details of any current faults	Supplier	NHHDC	DXXX Meter Asset Details DYYY Meter Configuration Details D0002 Fault Resolution Report or Request for Decision on Further Action	Electronic or other method, as agreed.

A smart-specific version of this process could be much shorter, and may not need as much use of historic meter reading data on the basis that the smart data should always be correct.

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POTENTIAL SMART VERSION:

CoDC with no change of meter or coincident CoS

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.3.1	By 12 WD prior to effective date of DC appointment.	Send notification of appointment.	Supplier.	New NHHDC.	D0155 Notification of New Meter Operator or Data Collector Appointment and Terms.	Electronic or other method, as agreed.
3.2.3.2	By 7 WD prior to effective date of DC appointment.	Send confirmation of appointment acceptance.	New NHHDC.	Supplier.	D0011 Agreement of Contractual Terms.	Electronic or other method, as agreed.
3.2.3.3	By 5 WD prior to effective date of DC appointment.	Send associated Agent details.	Supplier[20].	New NHHDC, MOA	D0148 Notification of Change to Other Parties. D0302 Notification of Customer Details	Electronic or other method, as agreed.
3.2.3.4	By 3 WD prior to effective date of DC appointment.	Send notification of de-appointment.	Supplier.	Old NHHDC[21].	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other method, as agreed.
3.2.3.5	If required	Request SVA MS data	NHHDC	Supplier	D0170 Request for Metering System Related Details	Electronic or other method, as agreed

[20] The Supplier will inform the MOA that the NHHDC has been appointed, via D0148 Notification of Change to Other Parties, and this notification will take place prior to step 3.2.3.4.
[21] The old NHHDC will retain responsibility for the MSID until all instructions generated have been accepted and applied by the NHHDA.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.3.6	Following 3.2.3.2, or if concurrent change of MS Settlement Details.	Send Metering System Settlement Details.	Supplier.	New NHHDC. SMRA.	D0052 Affirmation of Metering Settlement Details D0205 Update Registration Details See also Appendix 4.12 - Usage and Validation of Affirmation of Metering System Settlement Details (D0052) flow.	Electronic or other method, as agreed
3.2.3.7	Within 10WD of appointment.	Send current MTD.	Supplier	New NHHDC	DXXX Meter Asset Details DYYY Meter Configuration Details	Electronic or other method, as agreed

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3.2.4 Change of MOA for an existing SVA Metering System[14].

Option 1 – Supplier sends asset details direct to NHHDC

On a smart meter, the 'Option 1' approach has the NHHDC receiving MTDs direct from the Supplier. In this case there would be no need for the new MOA to send the same MTD to the NHHDC. So, for the purpose of this BSCP, there would be no more to CoMOA process.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.4.1	On appointment of new MOA.	Send notification[22] of new MOA to NHHDC.	Supplier.	NHHDC.	D0148 Notification of Change to Other Parties. D0302 Notification of Customer Details.	Electronic or other method, as agreed.
For legacy meters only						
3.2.4.2		Send MTD.	New MOA.	NHHDC.	D0149 Notification of Mapping Details. D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20)	Electronic or other method, as agreed.

[22] The Supplier will notify all other parties that need to know of change of MOA.

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Option 2 – MOA sends asset details direct to NHHDC

The 'Option 2' approach would see the new MOA providing asset details to the NHHDC – configuration details would be left to the Supplier

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.4.1	On appointment of new MOA.	Send notification[23] of new MOA to NHHDC.	Supplier.	NHHDC.	D0148 Notification of Change to Other Parties. D0302 Notification of Customer Details.	Electronic or other method, as agreed.
For legacy meters						
3.2.4.2		Send MTD.	New MOA.	NHHDC.	D0149 Notification of Mapping Details. D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20)	Electronic or other method, as agreed.
For smart meters						
3.4.2.3		Send MTD	New MOA Supplier	NHHDC NHHDC	DXXX Meter Asset Details. DYYY Meter Configuration Details.	Electronic or other method, as agreed.

[23] The Supplier will notify all other parties that need to know of change of MOA.

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3.2.5 Change of NHHDA for an existing SVA Metering System not concurrent with a Change of Supplier[14].

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.5.1	Once NHHDA appointment effective in SMRS.	Send notification of new NHHDA to NHHDC.	Supplier.	NHHDC[24].	D0148 Notification of Change to Other Parties.	Electronic or other method, as agreed.
3.2.5.2	If there is a valid reading for the NHHDA appointment date (i.e. there is a MAP ending on the day prior to the NHHDA appointment date).	Calculate the AA and EAC for the MAP.	NHHDC.			Internal Process.
3.2.5.3	Following 3.2.5.2.	Send the AA to the old NHHDA and Supplier. Send the EAC to the new NHHDA and Supplier.	NHHDC. NHHDC.	Old NHHDA, Supplier. New NHHDA, Supplier.	D0019 Metering System EAC/AA Data. Process EAC/AA data in accordance with section 3.5.	Electronic or other method, as agreed.
3.2.5.4	Otherwise, if a valid reading is processed after 3.2.5.1 and with a MAP ending before the day prior to the change of NHHDA appointment date.	Calculate the AA and EAC for the MAP.	NHHDC.			Internal Process.

[24] The relevant NHHDAs will include all the NHHDAs that were appointed during the NHHDCs period of responsibility.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.5.5	Following 3.2.5.4.	Send the AA to the old NHHDA and Supplier. Send the EAC to the new and old NHHDA and Supplier.	NHHDC. NHHDC.	Old NHHDA, Supplier. New and old NHHDA, Supplier.	D0019 Metering System EAC/AA Data. Process EAC/AA data in accordance with section 3.5.	Electronic or other method, as agreed.
3.2.5.6	If no reading processed prior to the change of NHHDA, then by no later than 8 WD after the effective date of the new NHHDA appointment.	Send latest EAC to new NHHDA.	NHHDC[25].	New NHHDA.	D0019 Metering System EAC/AA Data. Process EAC/AA data in accordance with section 3.5.	Electronic or other method, as agreed.
3.2.5.7	On processing of the first valid reading subsequent to the change of NHHDA (i.e. where the MAP spans the change of NHHDA appointment date).	Calculate the AA and EAC for the MAP.	NHHDC.			Internal Process.

[25] In this instance, no D0019 is sent to the Supplier (as this will already have been provided).

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.5.8	Following 3.2.5.7.	Send the AA to the new and old NHHDA and Supplier. Send the EAC to the new NHHDA and Supplier.	NHHDC NHHDC	New and old NHHDA, Supplier. New NHHDA, Supplier	D0019 Metering System EAC/AA Data. Process EAC/AA data in accordance with section 3.5.	Electronic or other method, as agreed.
3.2.5.9	For all subsequent readings (i.e. for MAPs beginning on or after the change of NHHDA appointment date).	Calculate the AA and EAC for the MAP.	NHHDC			Internal Process.
3.2.5.10	Following 3.2.5.9.	Send the AA and EAC to new NHHDA and Supplier.	NHHDC.	New NHHDA, Supplier.	D0019 Metering System EAC/AA Data. Process EAC/AA data in accordance with section 3.5.	Electronic or other method, as agreed.

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3.2.6 Change of Supplier for an existing SVA Metering System.[26]

This process is too long and complex to split. Suggest creating a separate Smart process as discussed in the workshop, and aim to omit most of the followup activities on the assumption that a read is either available for the CoS date or it needs to be deemed.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.6.1	By SSD.	Send appointment details to the new NHHDC, including the details of the old Supplier's Agents.	New Supplier.	New NHHDC.	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms.	Electronic or other method, as agreed.
3.2.6.2	By SSD	The new NHHDC will confirm appointment with the new Supplier. If the new NHHDC is the same as the old NHHDC, then proceed to 3.2.6.8.	New NHHDC.	New Supplier.	D0011 Agreement of Contractual Terms.	Electronic or other method, as agreed.
3.2.6.3	If concurrent change of MS Settlement Details	The Supplier will provide this data to the NHHDC.	New Supplier	New NHHDC SMRA	D0052 Affirmation of Metering Settlement Details D0205 Update Registration Details See also Appendix 4.12 - Usage and Validation of Affirmation of Metering System Settlement Details (D0052) flow.	Electronic or other method, as agreed
3.2.6.4	If applicable, once registration notification received.	Send request to old NHHDC to send Meter register reading and associated EAC.	New NHHDC.	Old NHHDC.	D0170 Request for Metering System Related Details.	Electronic or other method, as agreed.

[26] Refer to Appendix 4.4 - – Change of Supplier Activities.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.6.5	If applicable, prior to SSD+8[27].	Send Meter register reading and associated EAC. In addition, if the old NHHDC obtains an actual or a customer Meter register reading before the SSD, then ensure this reading(s) will be validated and processed prior to it being sent to the new NHHDC. Send the revised Meter register reading history to the new NHHDC.[28]	Old NHHDC.	New NHHDC.	Appendix 4.8 – Historical Data Requirements. D0010 Meter Readings. D0152 Metering System EAC/AA Historical Data.	Electronic or other method, as agreed.
3.2.6.6	Once appointed to SVA MS by new Supplier.	Send the MTD to the new NHHDC.	MOA.	New NHHDC.	D0149 Notification of Mapping Details. D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20)	Electronic or other method, as agreed.
3.2.6.7	In time to achieve a read within SSD-5 and SSD+5.	Where desired by both Suppliers, for the purposes of correcting an erroneous registration, both Suppliers shall agree a Meter register reading equivalent to a 1kWh advance, since the erroneous registration, and provide the Meter register reading via 3.2.6.8 below.	New Supplier / Old Supplier.	Old Supplier / New Supplier.		Manual Process.

[27] The old NHHDC will send the meter register reading and associated EAC/AA history on request via a D0170, irrespective of whether a 'Termination of Appointment or Contract by Supplier' (D0151) flow has been received from the Supplier. Where no D0151 flow has been received, the Supply Start Date can be derived from the 'Date Action Required By' (J0028) data item on the D0170 flow.
[28] The old NHHDC should always send the latest valid set of Meter readings, together with the EAC value(s) calculated from those Meter reading(s).

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.6.8	In time to achieve a read within SSD-5 and SSD+5.	Where actual Meter register reading required: Send request to obtain an actual Meter register reading. The new NHHDC will obtain a Meter register reading where instructed by the new Supplier[29]. Otherwise: Provide the customer Meter register reading (which may include a PoS reading or an old Supplier Estimated reading)[30]. The MOA may send a Meter register reading to the new NHHDC.	New Supplier. New NHHDC. New Supplier. MOA.	New NHHDC. New NHHDC. New NHHDC.	D0072 Instruction to Obtain Change of Supplier Reading. D0071 Customer Own Reading or Supplier Estimate Reading on Change of Supplier. D0010 Meter Readings.	Electronic or other method, as agreed. Internal Process. Electronic or other method, as agreed.
3.2.6.9	By SSD+8 and once profile coefficients received.	Select the CoS reading. Process and validate the Meter register reading, using the historic data provided by old NHHDC, where applicable (from 3.2.6.5) and the MTD provided by the MOA (from 3.2.6.6).	New NHHDC.		Appendix 4.2 - Validate Meter Data, Appendix 4.4 -Change of Supplier Activities,, Appendix 4.6 – Manual Adjustment of Meter Reading(s).	Internal Process.
3.2.6.10	If invalid Meter register reading obtained within SSD-5 and SSD+5 window.	Produce and send an Invalid Data Report[31].	New NHHDC.	New Supplier, LDSO, Old NHHDC, if applicable.	D0086 Notification of Change of Supplier Readings[32].	Electronic or other method, as agreed.

[29] The CoS reading is assumed to be correct by the Old Supplier, until the Old Supplier disputes the CoS reading.
[30] An old Supplier Estimated reading may not be provided by the new Supplier to the new NHHDC earlier than SSD+5.
[31] If there are other non-CoS readings dated after the new NHHDC appointment, which have been validated and are invalid, the new NHHDC will send the invalid Meter register reading(s) via the D0010 Meter Readings data flow. The "Reading Type" will not be flagged as "A – Actual Change of Supplier Read".
[32] This data flow is used for both valid and invalid readings produced from the Change of Supplier process.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.6.11	Where the Supplier ceases to be responsible at the same time as the NHHDC is also ceasing to trade	Prepare and maintain plans that will enable the Panel to fulfil the obligations of the Supplier under the Code.	Old NHHDC	Panel	Plans should detail how the NHHDC will upon termination or expiry; make arrangements for the immediate transfer of data and other information to the Panel.	Electronic or other method, as agreed.
3.2.6.12	On receipt of Invalid Data Report.	Send a request to the new NHHDC to provide a Meter register reading to replace the invalid one already received. The new NHHDC will collect a Meter register reading, based on the request from the new Supplier. Return to 3.2.6.9.	New Supplier. New NHHDC.	New NHHDC.	D0072 Instruction to Obtain Change of Supplier Reading.	Electronic or other method, as agreed. Internal Process.
3.2.6.13	If valid Meter register reading obtained within SSD-5 and SSD+5 window. For prepayment Metering Systems refer to Appendix 4.11 - Prepayment Meters	Produce and send Valid Data Report.	New NHHDC.	New Supplier, LDSO. Old NHHDC, if applicable.	D0010 Meter Readings[33]. D0086 Notification of Change of Supplier Readings[34]. D0086 Notification of Change of Supplier Readings. Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method, as agreed.

[33] This includes all Meter register readings successfully validated during the CoS process, including the CoS reading (with the CoS "Reading Date & Time" set to the actual date of the CoS reading as opposed to SSD).
[34] This data flow only includes the CoS reading. The "Reading Date & Time" will be set to Effective from Settlement Date {REGI}.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.6.14	a) If valid Meter register reading obtained outside SSD-5 and SSD+5 window but before SSD+8 and no valid Old Supplier Estimated reading was received between SSD+5 and SSD+8; or b) If no valid Meter register reading obtained by SSD+8 and no valid Old Supplier Estimated reading was received between SSD+5 and SSD+8.	Calculate a Deemed Meter Reading for the SSD using: • the MTD provided by the MOA (via 3.2.6.5), • the PoS reading if appropriate (refer to Appendix 4.4.3) and • if a coincident Change of Supplier and Change of Data Collector, the historical data provided by the old NHHDC (via 3.2.6.4)[35]. Send this Deemed Meter change of Supplier reading.	New NHHDC. New NHHDC.	New Supplier, LDSO, Old NHHDC, if applicable.	Appendix 4.5 – Deemed Meter Advance. D0086 Notification of Change of Supplier Readings. Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process. Electronic or other method, as agreed.

[35] Where a deemed reading is to be generated for a coincident Change of Supplier and Change of Data Collector, this deemed reading must be calculated using the historical data provided from the old NHHDC provided this is available and / or the PoS reading.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.6.15	Following 3.2.6.14 and in sufficient time to enable the reading to be included in the Initial Settlement Run relating to the last Settlement Day for which the old Supplier is responsible.	Send this Deemed change of Supplier reading	Old NHHDC	Old Supplier	D0086 Notification of Change of Supplier Readings	Electronic or other method, as agreed
3.2.6.16	If no Meter reading history provided by the old NHHDC by SSD+8 or Meter reading history received but NHHDC not able to load it after making reasonable endeavours to do so.	Request Meter reading history	New NHHDC	Old NHHDC		Post / Fax / Email or other method as agreed.
3.2.6.17	Within 10 WD of 3.2.6.16	Send Meter reading history	Old NHHDC	New NHHDC	D0010 Meter Readings D0152 Metering System EAC/AA Historical Data	Electronic or other method, as agreed
3.2.6.18	If 3.2.6.17 has not taken place and at least 10 WD after 3.2.6.16	New NHHDC may request Metering System Related Details	New NHHDC	New Supplier	D0170 Request for Metering System Related Details[36]	Electronic or other method, as agreed.

[36] The NHHDC should clearly indicate in the D0170 that a D0311 is expected in return.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.6.19	Within 5 WD of 3.2.6.18.	Send the EAC Details and Last Actual or Customer Register Reading (if available)[37]	New Supplier[38]	New NHHDC	D0311 Notification of Old Supplier Information (NOSI) Flow	Electronic or other method, as agreed.
3.2.6.20	When Meter reading history is provided, if a CoS reading is available	Select the CoS reading. Process and validate the Meter register reading, using the historic data provided by old NHHDC or the new Supplier and the MTD provided by the MOA (from 3.2.6.6). Calculate associated EAC / AA(s)	New NHHDC		Appendix 4.2 - Validate Meter Data, Appendix 4.4 -Change of Supplier Activities, Appendix 4.6 – Manual Adjustment of Meter Reading(s). Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.2.6.21	If invalid Meter register reading obtained within SSD-5 and SSD+5 window.	Produce and send an Invalid Data Report[31].	New NHHDC.	New Supplier, LDSO, Old NHHDC, if applicable.	D0086 Notification of Change of Supplier Readings[32].	Electronic or other method, as agreed.
3.2.6.22	If valid Meter register reading obtained within SSD-5 and SSD+5 window. For prepayment Metering Systems refer to Appendix 4.11 - Prepayment Meters	Produce and send Valid Data Report.	New NHHDC.	New Supplier, LDSO. Old NHHDC, if applicable.	D0010 Meter Readings[33]. D0086 Notification of Change of Supplier Readings[39]. D0086 Notification of Change of Supplier Readings. Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method, as agreed.

[37] The NOSI flow may contain the Old Supplier's Last EAC Details and / or the Last Actual or Customer Register reading. If the NOSI flow contains an Old Supplier's Estimated CoS Reading this must not be used by the new NHHDC.

[38] For domestic premises only, the new Supplier will forward the NOSI flow received from the old Supplier, which may or may not contain the EAC Details and Last Actual or Customer Register Reading. If the old Supplier failed to provide a NOSI flow, the new Supplier should indicate this by sending an 'empty' NOSI flow.

[39] This data flow only includes the CoS reading. The "Reading Date & Time" will be set to SSD.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.6.23	When Meter reading history is provided, if a CoS reading is not available	Deem Meter reading in accordance with Appendix 4.5 and calculate associated EAC / AA(s)	New NHHDC		Appendix 4.5 – Deemed Meter Advance, Appendix 4.6 - Manual Adjustment of Meter Reading(s) Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.2.6.24	Following 3.2.6.23	Send resulting change of Supplier Meter Reading	New NHHDC	New Supplier, LDSO	D0086 Notification of Change of Supplier Readings.	Electronic or other method as agreed
3.2.6.25	If appropriate and at least 30 WD after the CoS but no more than 12 months after CoS.	Send SAR.[41]	New Supplier	New NHHDC	D0300 Disputed Readings or Missing Readings on Change of Supplier	Electronic or other method, as agreed.
3.2.6.26	Following 3.2.6.25 and when Meter reading history and MTDs are available.	Validate SAR.	New NHHDC		Appendix 4.2 - Validate Meter Data, Appendix 4.4 -Change of Supplier Activities.	Internal Process
3.2.6.27	Following 3.2.6.26 and if SAR is valid.	Send validated SAR.	New NHHDC	New Supplier, LDSO, old NHHDC if applicable.	D0086 Notification of Change of Supplier Readings.	Electronic or other method, as agreed.
3.2.6.28	Following 3.2.6.27	Send validated SAR.	Old NHHDC	Old Supplier	D0086 Notification of Change of Supplier Readings.	Electronic or other method, as agreed.
3.2.6.29	Following 3.2.6.26 and if SAR is invalid.	Inform of invalid SAR. Go back to step 3.2.6.13, if appropriate.	New NHHDC	New Supplier	D0300 Disputed Readings or Missing Readings on Change of Supplier	Electronic or other method, as agreed.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.6.30	At least 20 WD after 3.2.6.16 and no more than 12 months after 3.2.6.16, if no Meter reading history or reading have been received and if no valid reading obtained in 3.2.6.25-.3.2.6.29	Obtain Meter register reading, deem initial Meter reading in accordance with Appendix 4.5 and calculate associated EAC / AA(s)	New NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.2.6.31	Once Deemed Meter Reading has been calculated	Send this change of Supplier Deemed Meter Reading.	New NHHDC.	New Supplier, LDSO, Old NHHDC, if applicable.	D0086 Notification of Change of Supplier Readings. Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method as agreed
3.2.6.32	Following 3.2.6.31	Send change of Supplier Deemed Meter Reading	Old NHHDC	Old Supplier	D0086 Notification of Change of Supplier Readings	Electronic or other method as agreed.
3.2.6.33	No later than 12 months after SSD, if the new Supplier wants to dispute the CoS reading prior to the Final Volume Allocation Run[40].	Disagree reading and: a) Provide an actual or customer Meter register reading. b) Agree this Meter register reading with the old Supplier[41]. c) Send the agreed Meter register reading to the new NHHDC. Refer to 3.2.6.36.	 New Supplier. New Supplier. New Supplier.	 Old Supplier[41]. Old Supplier. New NHHDC.	 D0300 Disputed Readings or Missing Readings on Change of Supplier[41]. D0300 Disputed Readings or Missing Readings on Change of Supplier. D0300 Disputed Readings or Missing Readings on Change of Supplier.	Manual Process.

[40] The Supplier may choose to raise a dispute where, in the Supplier's view, there is difference of more than 250kWh from the original CoS reading.
[41] Refer to MRA Agreed Procedure 08 'The Procedure for Agreement of Change of Supplier Readings and Resolution of Disputed Change of Supplier Readings'.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.6.34	No later than 12 months after SSD if the old Supplier wants to dispute the CoS reading prior to the Final Volume Allocation Run[40].	Disagree reading and: a) Send a request to the new Supplier to provide an actual Meter register reading or; (If option (a) selected, refer to 3.2.6.36.) b) Provide an actual or customer Meter register reading or c) Agree an alternative Meter register reading, to be used as the CoS reading, with the new Supplier[41]. d) Send the agreed Meter register reading to the new NHHDC. (If option b) or c) and d) selected, refer to 3.2.6.33.)	Old Supplier. Old Supplier. Old Supplier. New Supplier.	New Supplier. New Supplier[41]. New Supplier. New NHHDC.	D0300 Disputed Readings or Missing Readings on Change of Supplier. D0300Disputed Readings or Missing Readings on Change of Supplier[41]. D0300 Disputed Readings or Missing Readings on Change of Supplier D0300 Disputed Readings or Missing Readings on Change of Supplier	Manual Process.
3.2.6.35	On receipt of request from old Supplier.	Send request to new NHHDC to obtain a Meter register reading.	New Supplier.	New NHHDC.	D0072 Instruction to Obtain Change of Supplier Reading.	Electronic or other method, as agreed.
3.2.6.36	When Meter register reading has been agreed between Suppliers and is outside previous timescales but in time for the Final Volume Allocation Run.	Process and validate Meter register reading.	New NHHDC.		Appendix 4.2 - Validate Meter Data, Appendix 4.4 - Change of Supplier Activities; Appendix 4.6 – Manual Adjustment of Meter Reading(s).	Internal Process.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
		a) If valid, produce and send a Valid Data Report. Calculate a deemed Meter register reading [42] [43] for the CoS date and send.	New NHHDC.		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier [44].	Internal Process.
			New NHHDC.	New Supplier, LDSO, Old NHHDC[45], if applicable.	D0086 Notification of Change of Supplier Readings. Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier	Electronic or other method, as agreed.
		b) If invalid, produce and send an Invalid Data Report. Return to 3.2.6.27 or 3.2.6.28.	New NHHDC.	New Supplier, LDSO, Old NHHDC, if applicable.	D0086 Notification of Change of Supplier Readings[32].	
3.2.6.37	Following 3.2.6.36	Send change of Supplier Deemed Meter Reading	Old NHHDC	Old Supplier	D0086 Notification of Change of Supplier Readings	Electronic or other method as agreed.

[42] As a result of agreeing a revised CoS reading, the new NHHDC will withdraw the original CoS reading.
[43] If there is a difference between the original CoS Meter reading, deemed to SSD, and the proposed replacement CoS reading of less than 250 kWh, the NHHDC will accept the originally proposed CoS reading for use in Settlements.
[44] Revised AA/EAC values will be calculated as a result of amending the CoS reading.
[45] Upon receipt of the revised CoS reading, the old NHHDC will replace the previous CoS reading with the deemed CoS reading.

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3.2.7 Change of LDSO

Similar to CoS – process is long because of the need to collect or deem a reading. Create a separate, smarter process instead.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.7.1		Send appointment details to the new NHHDC, including the details of the current Agents.	Supplier	New NHHDC SMRA	D0155 Notification of Meter Operator or Data Collector Appointment and Terms D0148 Notification of Change to Other Parties D0052 Affirmation of Metering System Settlement Details D0302 Notification of Customer Details D0205 Update Registration Details	Electronic or other method, as agreed.
3.2.7.2	Once appointed to SVA MSID by Supplier.	Send the MTD to the new NHHDC.	MOA.	New NHHDC.	D0149 Notification of Mapping Details. D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20)	Electronic or other method, as agreed.
3.2.7.3	On date of change of LDSO	Where actual Meter register reading required: Send request to obtain an actual Meter register reading. The old NHHDC will obtain a Meter register reading where instructed by the Supplier. Otherwise:	 Supplier. Old NHHDC.	Old NHHDC.	D0170 Request for Metering System Related Details	 Electronic or other method, as agreed. Internal Process.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
		If an appropriate Customer own reading has been received, provide this.	Supplier.	Old NHHDC.		
		The MOA may send a Meter register reading to the old NHHDC.	MOA.	Old NHHDC.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.2.7.4	Following date of change of LDSO	Select the final reading for old MSID[46]. Process and validate the Meter register reading.	Old NHHDC.		Appendix 4.2 - Validate Meter Data, Appendix 4.6 – Manual Adjustment of Meter Reading(s).	Internal Process.
3.2.7.5	If invalid Meter register reading	Produce and send an Invalid Data Report.	Old NHHDC.	Supplier, old LDSO.		Electronic or other method, as agreed.
3.2.7.6	On receipt of Invalid Data Report.	Send a request to the old NHHDC to provide a Meter register reading to replace the invalid one already received.	Supplier.	Old NHHDC.		Electronic or other method, as agreed.
3.2.7.7	Following 3.2.7.6	The old NHHDC will collect a Meter register reading, based on the request from the Supplier. Return to 3.2.7.4	Old NHHDC.			Internal Process.
3.2.7.8	If valid Meter register reading obtained for date of change of LDSO	Produce and send Valid Data Report.	Old NHHDC.	Supplier, old LDSO.	D0010 Meter Readings. Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method, as agreed.

[46] The order of precedence is as follows: Remote reading, MOA final, NHHDC, Customer own reading.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.7.9	If valid Meter register reading not obtained for date of Change of LDSO	Calculate a final Deemed Meter Reading for the old MSID Send this Deemed Meter Reading.	Old NHHDC. Old NHHDC.	Supplier, old LDSO,	Appendix 4.5 – Deemed Meter Advance D0010 Meter Readings Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process. Electronic or other method, as agreed.
3.2.7.10	Within 10 WD of 3.2.7.9	Send final Meter register reading (whether actual or deemed) for old MSID. This shall be used as the initial Meter reading for the new MSID.	Old NHHDC	New NHHDC	D0010 Meter Readings	Electronic or other method, as agreed
3.2.7.11	Once final Meter reading for Old MSID received	Send this Meter reading	New NHHDC	New LDSO	D0010 Meter Readings	Electronic or other method, as agreed
3.2.7.12	If no Meter reading provided by 10 WD after change of LDSO	Request final Meter reading for old MSID.	New NHHDC	Old NHHDC, Supplier		Post / Fax / Email
3.2.7.13	Following 3.2.7.12	Send final Meter reading for old MSID. This shall be used as the initial Meter reading for the new MSID.	Old NHHDC, Supplier	New NHHDC	D0010 Meter Readings	Electronic or other method, as agreed
3.2.7.14	Once final Meter reading for Old MSID received	Send this Meter reading	New NHHDC	New LDSO	D0010 Meter Readings	Electronic or other method, as agreed

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.7.15	At least 10 WD after 3.2.7.12 and no more than 12 months after 3.2.7.12, if no final Meter reading has been received for old MSID	Obtain Meter register reading, deem initial Meter reading in accordance with Appendix 4.5 and calculate associated EAC / AA(s)	New NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.2.7.16	Once Deemed Meter Reading has been calculated	Send this Deemed Meter Reading.	New NHHDC.	Supplier, new LDSO, Old NHHDC	D0010 Meter Readings Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method, as agreed
3.2.7.17	Following 3.2.7.16	Send Deemed Meter Reading	Old NHHDC	Old LDSO	D0010 Meter Readings	Electronic or other method as agreed.

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3.3 Metering Activities.

3.3.1. Coincident Change of Supplier and Measurement Class from a Non-Half Hourly to a Half Hourly SVA Metering System [47]

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.1.1	Prior to CoMC date change.	Send notification of termination of appointment.	Old Supplier[48].	NHHDC.	D0151 Termination of Appointment or Contract by Supplier. The old NHHDC becomes de-appointed on SSD-1.	Electronic or other method, as agreed.
For legacy meters						
3.3.1.2	By SSD+5.	Send final Meter register reading(s) or notification that Meter register reading not obtainable and notification that this is a coincident CoS.	NHHMOA.	NHHDC.	D0010 Meter Readings or D0002 Fault Resolution Report or Request for Decision on Further Action (use the "Additional Information" field to indicate that this is a coincident change). D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20)	Electronic or other method, as agreed.
For smart meters						
	By SSD+5.	Send final Meter register reading(s)	Old Supplier	NHHDC	D0010 Meter Readings DXXX Meter Asset Details.	Electronic or other method, as agreed
For all meters						

[47] This process can also be used where there is only a CoMC, not a coincident CoS and CoMC.
[48] In addition the old Supplier will inform its other Agents of their de-appointments (via D0151 Termination of Appointment or Contract by Supplier) and they also become de-appointed on SSD-1.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.1.3	By SSD+8.	If Meter register reading(s) obtained, validate Meter register reading(s).	Current NHHDC.		Appendix 4.2 - Validate Meter Data, Appendix 4.6 – Manual Adjustment of Meter Reading(s).	Internal Process.
3.3.1.4	By SSD+8.	If valid Meter register reading(s), produce and send Valid Data Report.	Current NHHDC.	Old Supplier[49], LDSO.	D0086 Notification of Change of Supplier Readings (or D0010 Meter readings if there is no concurrent CoS). Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method, as agreed.
3.3.1.5	By SSD+8.	If invalid Meter register reading(s), produce and send Invalid Data Report.	Current NHHDC.	Old Supplier, LDSO.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.3.1.6	If concurrent CoS and CoMC and Meter register reading invalid or not received by SSD+8.	Calculate deemed reading(s) and associated EAC/AA(s).	Current NHHDC.		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process.
3.3.1.7	By SSD+8.	Send Deemed Meter Reading(s).	Current NHHDC.	Old Supplier, LDSO.	D0086 Notification of Change of Supplier Readings. Refer to section 3.3.11 Calculate AA/EAC and send to NHHDA and Supplier.	Electronic or other method, as agreed.
For legacy meters						

[49] Where the old Supplier wishes to query the final Meter register reading(s) he shall contact the old NHHDC and the old NHHDC shall endeavour to resolve the query.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.1.8	If CoMC only, and no Meter register reading received by 15 WD after the CoMC and if required.	Request final Meter register reading	Current NHHDC	MOA, Supplier		Post / Fax / Email
3.3.1.9	Within 10 WD of 3.3.1.8	Send final Meter register reading	MOA / Supplier	Current NHHDC[13]	D0010 Meter Readings	Electronic or other method, as agreed
3.3.1.10	If required and no valid Meter register reading received within 10 WD of 3.3.1.9	Deem final Meter register reading and calculate associated EAC / AA(s)	Current NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.3.1.11	Following 3.3.1.10	Send Deemed final Meter Reading	Current NHHDC	Supplier, LDSO	D0010 Meter Readings	Electronic or other method as agreed

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3.3.2. Coincident Change of Supplier and Measurement Class from a Half Hourly to a Non-Half Hourly SVA Metering System[47].

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.2.1		Send notification to NHHDC of appointment to NHH SVA MS. Also send details of the NHHDA and NHH MOA for the SVA MS to the NHHDC.	New Supplier.	NHHDC.	D0148 Notification of Change to Other Parties. D0155 Notification of new Meter Operator or Data Collector Appointment and Terms. D0302 Notification of Customer Details	Electronic or other method, as agreed.
For legacy meters						
3.3.2.2	Within 10 WD of installation of Metering system.	Send MTD. Send initial Meter register reading	NHHMOA	Supplier, NHHDC, LDSO. NHHDC NHHDC Supplier	D0149 Notification of Mapping Details. D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20) D0010 Meter Readings.	Electronic or other method, as agreed.
For smart meters						
	Within 10 WD of installation / reconfiguration of Metering system.	Send MTD. Send initial Meter register reading	Supplier	NHHDC, LDSO. NHHDC.	DXXX Meter Asset Details. DYYY Meter Configuration Details. D0010 Meter Readings.	Electronic or other method, as agreed.
For all meters						

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.2.3	Within 5 WD of receipt of D0150 from the MOA	Send notification of SVA Metering System details, including initial (class average) EAC to the NHHDC.	Supplier.	NHHDC. SMRA	D0052 Affirmation of Metering System Settlement Details. D0205 Update Registration Details See Appendix 4.12 – Usage and Validation of Affirmation of Metering System Settlement Details (D0052) Flow	Electronic or other method, as agreed.
3.3.2.4	On receipt of D0052 and D0150	Validate D0052. Check for discrepancies between the Metering System Settlement Details provided by the Supplier and the Meter Technical Details provided by the MOA.	NHHDC		See Appendix 4.12 – Usage and Validation of Affirmation of Metering System Settlement Details (D0052) Flow	Internal
3.3.2.5	If D0052 invalid	Send notification of invalid Metering System Settlement details to Supplier	NHHDC	Supplier	D0310 Notification of Failure to Load or Receive Metering System Settlement Details[12]	Electronic or other method, as agreed.
3.3.2.6	On receipt of D0310	Supplier should resolve the problem by re-sending or revising the D0052 as required or by instructing the MOA to re-send the D0150.	Supplier	NHHDC SMRA	D0052 Affirmation of Metering System Settlement Details. D0205 Update Registration Details As required	Electronic or other method, as agreed.
3.3.2.7	On receipt of valid D0052	Send the initial (class average) EAC for each Settlement register of the SVA MS to the NHHDA. Process EAC/AA data in accordance with section 3.5.	NHHDC.	NHHDA.	D0019 Metering System EAC/AA Data.	Electronic or other method, as agreed.
3.3.2.8		Process and validate Meter register reading.	NHHDC.		Appendix 4.2 – Validate Meter Data, Appendix 4.6 – Manual Adjustment of Meter Reading(s).	Internal Process.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.2.9	If invalid Meter register reading.	Produce and send Invalid Data Report.	NHHDC.	LDSO, Supplier.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.3.2.10	If valid Meter register reading.	Produce and send Valid Data Report.	NHHDC.	LDSO, Supplier.	D0010 Meter Readings. Refer to section 3.3.11 Calculate AA/EAC and send to NHHDA and Supplier.	Electronic or other method, as agreed.
3.3.2.11	If no Meter register reading received within 10 WD of CoMC and initial reading required [50]	Request initial Meter register reading	NHHDC	MOA, Supplier, Old HHDC (where possible and if same Metering Equipment is in use)		Post / Fax / Email
3.3.2.12	Within 10 WD of receipt of request for initial Meter Register reading	Send initial Meter register reading	MOA , Supplier, Old HHDC	NHHDC[13]	D0010 Meter Readings	Electronic or other method, as agreed
3.3.2.13	If required and at least 10 WD after 3.3.2.11 and no more than 12[51] months after 3.3.2.11, if no initial valid Meter register reading has been received	Deem initial Meter reading in accordance with Appendix 4.5 and calculate associated EAC / AA(s)	NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process

[50] An initial Meter reading is required for a co-incident CoS and CoMC. It is optional for a CoMC only.
[51] By 10 Working Days before the Final Reconciliation Run for the relevant Settlement Date if no concurrent Change of Supplier.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.2.14	Following 3.3.2.13	Send Deemed Meter Reading	NHHDC	Supplier, LDSO	D0010 Meter Readings	Electronic or other method as agreed

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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 10 WD of attempting to change energisation status.	Send change of energisation status and initial Meter register reading.	MOA MOA	NHHDC, Supplier, LDSO NHHDC	D0139 Confirmation or Rejection of Energisation Status Change. D0010 Meter Readings	Electronic or other method, as agreed.
3.3.3.2	On receipt of notification of change of energisation status.	Process and validate Meter register readings[52]. During processing, if communications equipment disconnected, record this as well as the source of the notification of the energisation.	NHHDC.		Appendix 4.2 - Validate Meter Data, Appendix 4.6 – Manual Adjustment of Meter Reading(s).	Internal Process.
3.3.3.3	If invalid Meter register reading.	Produce and send Invalid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.3.3.4	If valid Meter register reading.	Produce and send Valid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings. Refer to section 3.3.11 - Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method, as agreed.
3.3.3.5	If required and no valid Meter register reading received within 10 WD of notification of change to energisation status	Request initial Meter register reading	NHHDC	MOA, Supplier		Post / Fax / Email
3.3.3.6	Within 10 WD of 3.3.3.5	Send initial Meter register reading	MOA / Supplier	NHHDC[13]	D0010 Meter Readings	Electronic or other method, as agreed

[52] It is necessary for settlement purposes to identify a SVA MS as energised or de-energised. Where a SVA MS consists of more than one Meter, it will be considered energised if at least one of its meters is energised.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.3.7	10 WD after 3.3.3.5, if no valid Meter register reading received	If available substitute final Meter reading taken when the Metering System was de-energised for the initial Meter reading and calculate associated EAC / AA(s).	NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.3.3.8	If required and at least 10 WD after 3.3.3.5 and by 10 WD before the Final Reconciliation Run for the relevant Settlement Date, if no valid initial Meter register reading has been received	Deem initial Meter reading in accordance with Appendix 4.5 and calculate associated EAC / AA(s)	NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.3.3.9	Following 3.3.3.8	Send Deemed Meter Reading	NHHDC	Supplier, LDSO	D0010 Meter Readings	Electronic or other method as agreed

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3.3.4. De-energise a SVA Metering System.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.4.1	Within 10 WD of attempting to change energisation status.	Send change of energisation status and final Meter register reading.	MOA. MOA	NHHDC, Supplier. LDSO. NHHDC	D0139 Confirmation or Rejection of Energisation Status Change. D0010 Meter Readings	Electronic or other method, as agreed.
3.3.4.2	If Meter register reading received.	Process and validate Meter register reading. During processing, if communications equipment disconnected, record this as well as the source of the notification of the de-energisation.	NHHDC.		Appendix 4.2 - Validate Meter Data, Appendix 4.6 – Manual Adjustment of Meter Reading(s).	Internal Process.
3.3.4.3	If invalid Meter register reading received.	Produce and send Invalid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.3.4.4	If valid Meter register reading received.	Produce and send Valid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings. Refer to section 3.3.11 - Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method, as agreed.
3.3.4.5	If required and no valid Meter register reading received within 10 WD of notification of change to energisation status	Request final Meter register reading	NHHDC	MOA, Supplier		Post / Fax / Email
3.3.4.6	Within 10 WD of 3.3.4.5	Send final Meter register reading	MOA / Supplier	NHHDC[13]	D0010 Meter Readings	Electronic or other method, as agreed

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.4.7	If required and no valid Meter register reading received within 10 WD of 3.3.4.5	Deem final Meter register reading and calculate associated EAC / AA(s)[53]	NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.3.4.8	Following 3.3.4.7	Send Deemed Meter Reading	NHHDC	Supplier, LDSO	D0010 Meter Readings	Electronic or other method as agreed

[53] If the final Meter reading is deemed, and subsequently the Metering System is energised and an initial Meter register reading is obtained, the initial Meter register reading shall be substituted as the final Deemed Meter Reading provided that the Deemed Meter Reading for the date of the de-energisation has not been included in an RF run, in accordance with Appendix 4.5.

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3.3.5. Disconnection of a SVA Metering System.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.5.1		Send appointment end details to NHHDC, including planned disconnection date.	Supplier.	NHHDC.	D0151 Termination of Appointment or Contract by Supplier. P0027 Notification of Pending Work.	Electronic or other method, as agreed.
3.3.5.2	As appropriate	Send change of energisation status and final Meter register reading.	MOA.	NHHDC.	D0139 Confirmation or Rejection of Energisation Status Change.	Electronic or other method, as agreed.
3.3.5.3	If Meter register reading obtained.	Process and validate Meter register reading. During processing, if communications equipment disconnected record this as well as the notification of termination of the appointment to the SVA MS from the Supplier.	NHHDC.		Appendix 4.2 - Validate Meter Data, Appendix 4.6 – Manual Adjustment of Meter Reading(s).	Internal Process.
3.3.5.4	If invalid Meter register reading.	Produce and send Invalid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.3.5.5	If valid Meter register reading.	Produce and send Valid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings. Refer to section 3.3.11 - Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method, as agreed.
3.3.5.6	If required and no valid Meter register reading received within 10 WD of the disconnection	Request final Meter register reading	NHHDC	MOA, Supplier		Post / Fax / Email
3.3.5.7	Within 10 WD of 3.3.5.6	Send final Meter register reading	MOA / Supplier	NHHDC[13]	D0010 Meter Readings	Electronic or other method, as agreed

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.5.8	If required and no valid Meter register reading received within 10 WD of 3.3.5.6 or notification received that the reading is unavailable	If available, substitute the de-energisation reading as the disconnection reading. If not available, deem the final Meter register reading Calculate associated EAC / AA(s)	NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.3.5.9	Following 3.3.5.8	Send Deemed Meter Reading	NHHDC	Supplier, LDSO	D0010 Meter Readings	Electronic or other method as agreed

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3.3.6. Change of Standard Settlement Configuration.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.6.1		Send notification that MOA is to re-program Meter registers. If necessary, agree revised contractual terms with NHHDC	Supplier[54].	NHHDC.	P0027 Notification of Pending Work.	Electronic or other method, as agreed.
For legacy meters						
		Pass final Meter register reading for old register configuration and initial Meter register reading for new register configuration, including MTD and the mapping of these onto each Settlement Register[55].	MOA	NHHDC NHHDC, Supplier, LDSO. NHHDC Supplier	D0010 Meter Readings. D0149 Notification of Mapping Details. D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20)	Electronic or other method, as agreed.
For smart meters						
		Pass final Meter register reading for old register configuration and initial Meter register reading for new register configuration, including MTD and the mapping of these onto each Settlement Register	Supplier	NHHDC NHHDC, LDSO.	D0010 Meter Readings. DXXX Meter Asset Details DYYY Meter Configuration Details	Electronic or other method, as agreed.

[54] If necessary the Supplier and NHHDC agree revised terms for retrieval and processing of data.
[55] Settlement Registers must not 'double count' electricity. If two physical registers record the same consumption, then the NHHDC must perform a process of differencing.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
For all meters						
3.3.6.2	Within 5 WD of ~~receipt of D0150 from the MOA~~confirmation of SSC change	Send initial (class average) EAC for each Settlement Register associated with the new SSC and the new Profile Class[56] (where appropriate). Send the date for which any change of SSC has been registered.	Supplier	NHHDC SMRA	D0052 Affirmation of Metering Settlement Details. D0205 Update Registration Details See Appendix 4.12 – Usage and Validation of Affirmation of Metering System Settlement Details (D0052) Flow	Electronic or other method, as agreed.
3.3.6.3	On receipt of D0052 and D0150	Validate D0052. Check for discrepancies between the Metering System Settlement Details provided by the Supplier and the Meter Technical Details. ~~provided by the MOA.~~	NHHDC		See Appendix 4.12 – Usage and Validation of Affirmation of Metering System Settlement Details (D0052) Flow.	Internal
3.3.6.4	If D0052 invalid	Send notification of invalid Metering System Settlement details to Supplier	NHHDC	Supplier	D0310 Notification of Failure to Load or Receive Metering System Settlement Details[12]	Electronic or other method, as agreed.
3.3.6.5	On receipt of D0310	Supplier should resolve the problem by re-sending or revising the D0052 as required or by ~~instructing the MOA to~~ re-send the ~~D0150~~Meter Technical Details.	Supplier	NHHDC SMRA	D0052 Affirmation of Metering System Settlement Details. D0205 Update Registration Details As required	Electronic or other method, as agreed.
3.3.6.6	On receipt of valid D0052	Send the initial (class average) EAC for each Settlement register of the SVA MS to the NHHDA. Process EAC/AA data in accordance with section 3.5.	NHHDC.	NHHDA.	D0019 Metering System EAC/AA Data.	Electronic or other method, as agreed.

[56] On change of Profile Class for a SVA MS, a class average EAC will be submitted in preference to an EAC calculated from the AA for the Meter Advance Period spanning the change of Profile Class. An EAC will not be calculated if the Profile Class has changed during the Meter Advance Period.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.6.7		Process and validate Meter register readings.	NHHDC.		Appendix 4.2 - Validate Meter Data, Appendix 4.6 – Manual Adjustment of Meter Reading(s).	Internal Process.
3.3.6.8	If invalid Meter register reading.	Produce and send Invalid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings. Refer to section 3.3.11 - Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method, as agreed.
3.3.6.9	If valid Meter register reading.	Produce and send Valid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings. Refer to section 3.3.11 Calculate AA/EAC and send to NHHDA and Supplier.	Electronic or other method, as agreed.

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3.3.7. Reconfigure or Replace SVA Metering System - No Change of Measurement Class.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
For legacy meters						
3.3.7.1	Within 10 WD of replacing / reconfiguring MS	Send final Meter register reading for replaced / reconfigured MS or notify that Meter register reading not obtainable. Send Meter register reading for replacement MS / new configuration. Send MTD for replacement MS / new configuration.	MOA.[57] [58]	NHHDC. NHHDC, Supplier, LDSO. NHHDC Supplier	D0010 Meter Readings or D0002 Fault Resolution Report or Request for Decision on Further Action D0149 Notification of Mapping Details D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20)	Electronic or other method, as agreed.
For smart meters						
	Within 5 WD of replacing / reconfiguring MS, if performed by MOA	Send final Meter register reading for replaced / reconfigured MS or notify that Meter register reading not obtainable. Send MTD for replacement MS / new configuration (if applied)	MOA.	Supplier.	D0010 Meter Readings or D0002 Fault Resolution Report or Request for Decision on Further Action DXXX Meter Asset Details DYYY Meter Configuration Details (if new configuration)	Electronic or other method, as agreed.

[57] A change of Meter due to safety reasons may lead to a different type of Meter being put in. This would require the MOA to determine a permanent solution, in conjunction with the NHHDC as necessary.
[58] With reference to 3.3.7.1, whenever installing new, replacement and re-configured NHH meters or carrying out work requiring re-registration of the metering system, the MOA shall ensure that the Meter registers are clearly identified and that Meter Register Id (J0010) to be used in all relevant DTN Data Flows (e.g. D0149 & D0150) clearly identifies the registers on the metering asset read. See BSCP514 for details.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
	Within 5WD of replacement / reconfiguration	Send final Meter register reading for replaced / reconfigured MS. Send MTD for replacement MS / new configuration	Supplier	NHHDC NHHDC, LDSO	D0010 Meter Readings or D0002 Fault Resolution Report or Request for Decision on Further Action DXXX Meter Asset Details DYYY Meter Configuration Details (if new configuration)	Electronic or other method, as agreed.
For all meters						
3.3.7.2	If Meter register reading obtained from replaced / reconfigured MS.	Process and validate Meter register reading(s).	NHHDC.		Appendix 4.2 – Validate Meter Data, Appendix 4.6 – Manual Adjustment of Meter Reading(s).	Internal Process.
3.3.7.3	If invalid Meter register reading.	Produce and send Invalid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.3.7.4	If valid Meter register reading.	Produce and send Valid Data Report.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings. Refer to section 3.3.11 – Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method, as agreed.
3.3.7.5	If no valid Meter register reading(s) received within 10 WD of the replacement / reconfiguration and initial and / or final reading required	Request initial and / or final Meter register reading	NHHDC	MOA, Supplier		Post / Fax / Email
3.3.7.6	Within 10 WD of 3.3.7.5	Send initial and / or final Meter register reading	MOA / Supplier	NHHDC[13]	D0010 Meter Readings	Electronic or other method, as agreed

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.7.7	If required and no valid final Meter register reading received within 10 WD of 3.3.7.6	Deem final Meter register reading and calculate associated EAC / AA(s)	NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.3.7.8	If required and at least 10 WD after 3.3.7.4 and by 10 WD before the Final Reconciliation Run for the relevant Settlement Date, if no valid initial Meter register reading has been received	Deem initial Meter reading in accordance with Appendix 4.5 and calculate associated EAC / AA(s)	NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.3.7.9	Following 3.3.7.8	Send Deemed Meter Reading	NHHDC	Supplier, LDSO	D0010 Meter Readings	Electronic or other method as agreed

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3.3.8. Withdrawing Meter Readings.[59]

3.3.8.1 Withdrawal of Meter Reading following Fault Rectification – No Change of SVA Metering System.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.8.1.1	As soon as possible after SVA MS fault rectified.	Send: • notification of fault and the period affected[60]; • confirmation of rectification of fault; and Meter register reading following rectification of fault (to be used for subsequent MAP).	MOA.	NHHDC[61] [62].	D0002 Fault Resolution Report or Request for Decision on Further Action. D0010 Meter Readings (if applicable). P0192 Invalid Meter Reading / AA / EAC.	Electronic or other method, as agreed.
3.3.8.1.2	By 5 WD after 3.3.8.1.1.	Determine which Meter register reading(s) / AA/EAC(s) affected by the period of the fault. Withdraw the Meter register reading(s) (back to the last valid Meter register reading which was obtained prior to the period of the fault) and the AA/EAC(s) (relating to the period of the fault). Complete a Site Visit Report.	NHHDC.		Appendix 4.1 - Site Checks of SVA Metering System - Site Visit Report. Appendix 4.3 - Withdrawing Meter Reading(s) / AA/EAC(s).	Internal Process.

[59] When a fault is reported by the MOA, the collection timetable will be updated in time to ensure that faulty data is not collected and passed into the Settlement process. Following resolution of the fault, the data collection timetable will be updated to ensure that actual data is collected within the collection period for the SVA MS.
[60] If the period of the fault is not known then the MOA will notify the NHHDC that this period cannot be determined by the MOA.
[61] The NHHDC must ensure that there is no change to the original reading collected from the SVA MS as a result of SVA MS faults notified by the MOA. Invalidated readings must be retained for reference.
[62] Where the NHHDC receives notification of a fault from someone other than the MOA, the NHHDC will report the fault to the MOA.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.8.1.3	By 1 WD after 3.3.8.1.2.	Send notification: • that Meter register reading(s) has been withdrawn together with the Site Visit Report. • of the last valid AA/EAC (obtained prior to the period of the fault).	NHHDC. NHHDC.	Supplier, LDSO[63]. Supplier, NHHDA.	D0010 Meter Readings. D0019 Metering System EAC/AA Data.	Electronic or other method, as agreed.
3.3.8.1.4	If required and no valid final Meter register reading received 5 WD after SVA MS fault rectified	Deem final Meter register reading and calculate associated EAC / AA(s)	NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.3.8.1.5	Following 3.3.8.1.4	Send Deemed Meter Reading	NHHDC	Supplier, LDSO	D0010 Meter Readings	Electronic or other method as agreed
3.3.8.1.6	If required and no valid initial Meter register reading received 5 WD after SVA MS fault rectified	Request initial Meter register reading	NHHDC	MOA, Supplier		Post / Fax / Email
3.3.8.1.7	Within 10 WD of 3.3.8.1.6	Send initial Meter register reading	MOA / Supplier	NHHDC[13]	D0010 Meter Readings	Electronic or other method, as agreed

[63] The Supplier and LDSO will withdraw all subsequent Meter register reading(s) received after the period of the fault until notified of the next valid Meter register reading by the NHHDC.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.8.18	If required and at least 10 WD after 3.3.8.1.6 and by 10 WD before the Final Reconciliation Run for the relevant Settlement Date, if no valid initial Meter register reading has been received	Deem initial Meter reading in accordance with Appendix 4.5 and calculate associated EAC / AA(s)	NHHDC		Appendix 4.5 – Deemed Meter Advance Refer to section 3.3.11 Calculate AA/EAC Values and send to NHHDA and Supplier.	Internal Process
3.3.8.1.9	Following 3.3.8.1.8	Send Deemed Meter Reading	NHHDC	Supplier, LDSO	D0010 Meter Readings	Electronic or other method as agreed

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3.3.8.2 Withdrawal of Meter Reading following Fault Rectification – Change of SVA Metering System.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
For legacy meters						
3.3.8.2.1	As soon as possible after installation of new SVA MS.	Send: • notification of fault and period affected[60]; • confirmation of rectification of fault following installation of new SVA MS; • final Meter register reading for removed SVA MS where obtained[64]; and • MTD, including Meter register reading for replacement SVA MS. If there is a change of SSC as a result of installing new SVA MS, send the revised SVA MS details and the initial (class average) EAC.	MOA.	NHHDC[65,62].	D0002 Fault Resolution Report or Request for Decision on Further Action. D0010 Meter Readings. D0149 Notification of Mapping Details. D0150 Non-Half Hourly Meter Technical Details. D0313 Auxiliary Meter Technical Details (in accordance with Appendix 4.20)	Electronic or other method, as agreed.
			Supplier.	NHHDC SMRA	D0052 Affirmation of Metering System Settlement Details. D0205 Update Registration Details	
For smart meters						

[64] If the NHHDC receives a final Meter register reading for the removed SVA MS the NHHDC will record but will not use this Meter register reading in Settlement as the NHHDC will deem an advance for the period of the fault.

[65] The NHHDC must ensure that there is no change to the original reading collected from the SVA MS as a result of SVA MS faults notified by the MOA. Invalidated readings must be retained for reference.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
	As soon as possible after installation of new SVA MS.	Send: • notification of fault and period affected[60]; • confirmation of rectification of fault following installation of new SVA MS; • final Meter register reading for removed SVA MS where obtained[66]; and • MTD, including Meter register reading for replacement SVA MS. If there is a change of SSC as a result of installing new SVA MS, send the revised SVA MS details and the initial (class average) EAC.	MOA.	Supplier.	D0002 Fault Resolution Report or Request for Decision on Further Action. D0010 Meter Readings. DXXX Meter Asset Details DYYY Meter Configuration Details (if new configuration).	Electronic or other method, as agreed.
			Supplier.	NHHDC SMRA	D0052 Affirmation of Metering System Settlement Details. D0205 Update Registration Details	
For all meters						
3.3.8.2.2	If there is a change of SSC.	Validate D0052. Check for discrepancies between the Metering System Settlement Details provided by the Supplier and the Meter Technical Details provided by the MOA. Notify Supplier of any exceptions in accordance with 3.3.6.6 to 3.3.6.8.	NHHDC	Supplier	See Appendix 4.12 – Usage and Validation of Affirmation of Metering System Settlement Details (D0052) Flow. D0310 Notification of Failure to Load or Receive Metering System Settlement Details[12].	Electronic or other method, as agreed.

[66] If the NHHDC receives a final Meter register reading for the removed SVA MS the NHHDC will record but will not use this Meter register reading in Settlement as the NHHDC will deem an advance for the period of the fault.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.8.2.3	By 1 WD after 3.3.8.2.1.	Process and validate Meter register reading(s) for replacement SVA MS.	NHHDC.		Appendix 4.2 - Validate Meter Data, Appendix 4.6 - Manual Adjustment of Meter Reading(s).	Internal Process.
3.3.8.2.4	By 1 WD after 3.3.8.2.2.	If invalid Meter register reading, produce and send Invalid Data Report for replacement SVA MS. If invalid Meter register reading then obtain alternative Meter register reading and return to 3.3.8.2.2.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.3.8.2.5	By 1 WD after 3.3.8.2.2.	If valid Meter register reading, produce and send Valid Data Report for replacement SVA MS.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.3.8.2.6	By 1 WD after 3.3.8.2.4.	For the removed SVA MS: • Determine which Meter register reading(s) / AA/EAC(s) affected by the period of the fault. • Withdraw the Meter register reading(s) (back to last valid Meter register reading which was obtained prior to the period of the fault) and the AA/EAC(s) (relating to the period of the fault). Complete a Site Visit Report. For the replacement SVA MS: • If change of SVA MS requires change of SSC retrieve the initial class average EAC (because the TPR(s) will be different). If change of SVA MS with no change of SSC retrieve the EAC calculated for the removed SVA MS together with the AA.	NHHDC.		Appendix 4.1 - Site Checks of SVA Metering System - Site Visit Report. Appendix 4.3 - Withdrawing Meter Reading(s) / AA/EAC(s).	Internal Process.

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3.3.8.3 Withdrawal of Meter Reading / Large AA following Review.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.8.3.1	As soon as possible following identification of invalid Meter register reading(s) / AA(s).	Send notification that Meter register reading(s) / AA(s) invalid.	Supplier.	NHHDC.	P0192 Invalid Meter Reading / AA / EAC. D0010 Meter Readings (if applicable).	Manual Process.
3.3.8.3.2	By 5 WD after 3.3.8.3.1.	Determine whether Meter register reading(s) previously identified as valid is now invalid and / or determine whether AA previously identified as valid is now invalid in accordance with Appendix 4.9. Where appropriate in accordance with Appendix 4.9, withdraw the Meter register reading(s) and / or the AA/EAC(s).	NHHDC.		Appendix 4.1 - Site Checks of SVA Metering System - Site Visit Report. Appendix 4.9 - EAC/AA Calculation.	Internal Process.
3.3.8.3.3	By 1 WD after 3.3.8.3.2	Send notification that Meter register reading(s) /AA/EAC(s) has been withdrawn.	NHHDC.	Supplier, LDSO[67].	D0010 Meter Readings.	Electronic or other method, as agreed.
3.3.8.3.4	By 1 WD after 3.3.8.3.3.	Send the AA/EAC (in accordance with Appendix 4.9). Process EAC/AA data in accordance with section 3.5.	NHHDC. NHHDA.	Supplier, NHHDA.	D0019 Metering System EAC/AA Data. If Gross Volume Correction is required, refer to section 3.4.4	Electronic or other method, as agreed.

[67] The Supplier and LDSO will withdraw all subsequent Meter register readings received from the NHHDC.

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3.3.8.4 Withdrawal of initial Long Term Vacant Period Meter Reading[68].

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.8.4.1	If actual Meter register reading(s) taken at the end of a Long Term Vacant period indicates that the deemed initial Meter[69] reading(s) for the Long Term Vacant Period was incorrect.	Send notification that the deemed initial Meter register reading(s) at the start of the Long Term Vacant period is incorrect. Instruct whether or not to replace the withdrawn reading with the reading taken at the end of the Long Term Vacant Period, in accordance with Appendix 4.5.	Supplier.	NHHDC.	Details of the Meter register reading(s) to be withdrawn. Appendix 4.5 – Deemed Meter Advance. Reason for withdrawing the Meter register reading(s)	Manual Process.
3.3.8.4.2	By 5 WD after 3.3.8.4.1.	Withdraw the Meter register reading(s) and the associated EAC/AA(s). If last Meter reading was prior to RF, deem a Meter reading at RF in accordance with Appendix 4.5. If required enter the Meter reading taken at the end of the Long Term Vacant Period as the reading for the start of the Long Term Vacant Period in accordance with Appendix 4.5.	NHHDC.		Appendix 4.5 – Deemed Meter Advance.	Internal Process.
3.3.8.4.3	By 1 WD after 3.3.8.4.2	Send notification that Meter register reading(s) /EAC/AA(s) has been withdrawn.	NHHDC.	Supplier, LDSO.	D0010 Meter Readings.	Electronic or other method, as agreed.
3.3.8.4.4	If appropriate, and by 1 WD after 3.3.8.4.2	Send notification that the Meter register reading taken at the end of the Long Term Vacant Period is being used as the Meter reading at the start of the Long Term Vacant Period.	NHHDC	Supplier, LDSO	D0010 Meter Readings.	Electronic or other method as agreed.

[68] Suppliers shall have the choice on whether or not they wish their NHHDC to follow this process and withdraw the Meter reading.
[69] The initial Meter reading at the start of the Long Term Vacant period to be withdrawn must not have passed the Final Reconciliation Run.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.8.4.5	By 1 WD after 3.3.8.4.3 and 3.3.8.4.4.	Send the EAC/AA (in accordance with Appendix 4.9). Process EAC/AA data in accordance with section 3.5.	NHHDC. NHHDA.	Supplier, NHHDA.	Appendix 4.9 - EAC/AA Calculation. D0019 Metering System EAC/AA Data. If Gross Volume Correction is required, refer to section 3.4.4.	Electronic or other method, as agreed.

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3.3.10. Changes to SVA Metering System Standing Data.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.10.1	On change of Profile Class.	Send notification of intended change of Profile Class, including the initial value EAC, and if required, request that the NHHDC collects a Meter register reading. Await confirmation of the effective date of the Profile Class change from the NHHDC.	Supplier.	NHHDC. SMRA	D0005 Instruction on Action. D0052 Affirmation of Metering System Settlement Details. D0205 Update Registration Details	Electronic or other method, as agreed.
3.3.10.2	Within 10 WD of notification from Supplier.	Either: a) Obtain a Meter register reading[70], or receive Meter register reading from MOA, if there is a change of SSC. b) Send the Meter register reading to the Supplier together with the Meter register reading date. This date will become the effective date of the Profile Class change. If unable to obtain Meter register reading, the NHHDC will inform the Supplier and await further instructions.	Supplier, NHHDC, MOA. NHHDC	NHHDC. Supplier[71].	D0010 Meter Readings. D0004 Notification of Failure to Obtain Reading. D0010 Meter Readings.	Internal Process. Electronic or other method, as agreed.

[70] Valid reasons for requiring a Meter register reading are:
- the NHHDCs system constraints;
- the change of Profile Class requires a change of SSC or change of Meter or reprogramming of the Meter; or
- as a result of a Supplier request.

[71] The NHHDC will indicate there has been a change of Profile Class by sending a D0010 Meter Reading to the Supplier. In particular the following fields will be completed by the NHHDC : 'Additional Information' field - the NHHDC will confirm that the flow is a Profile Class change flow; if Meter register reading obtained, additionally the 'Reading Type' field will be completed - the NHHDC will select the 's' - for 'Special' value. This combination of data will enable the Supplier to identify that this is a change of Profile Class flow.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
		Supplier will inform NHHDC of next course of action. or If no Meter register reading required, confirm the effective date of the Profile Class change.	Supplier. NHHDC.	NHHDC. Supplier[85].	D0005 Instruction on Action. D0010 Meter Readings.	
3.3.10.3		Send initial (class) average EAC. See Appendix 4.12 – Usage and Validation of Affirmation of Metering System Settlement Details (D0052) Flow	Supplier.	NHHDC. SMRA	D0052 Affirmation of Metering System Settlement Details. D0205 Update Registration Details	Electronic or other method, as agreed.
3.3.10.4		Validate D0052.	NHHDC		See Appendix 4.12 – Usage and Validation of Affirmation of Metering System Settlement Details (D0052) Flow	Internal
3.3.10.5	If D0052 invalid	Send notification of invalid Metering System Settlement details to Supplier	NHHDC	Supplier	D0310 Notification of Failure to Load or Receive Metering System Settlement Details[12]	Electronic or other method, as agreed.
3.3.10.6	On receipt of D0310	Supplier should resolve the problem and re-send or revise D0052 as required	Supplier	NHHDC SMRA	D0052 Affirmation of Metering System Settlement Details. D0205 Update Registration Details As required	Electronic or other method, as agreed.
3.3.10.7	If Meter register reading not obtained for Profile Class change.	Send the initial value EAC which is effective from the Profile Class change. Process EAC/AA data in accordance with section 3.5.	NHHDC. NHHDA.	NHHDA, Supplier.	D0019 Metering System EAC/AA Data.	Electronic or other method, as agreed.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.10.8	Once Meter register reading obtained.	Calculate an AA based on the MAP and substitute a Class Average EAC with an Effective From Settlement Date set to the day after the Effective To Date of the AA Send the AA and the initial value EAC. Process EAC/AA data in accordance with section 3.5.	NHHDC. NHHDC. NHHDA.	NHHDA, Supplier.	D0019 Metering System EAC/AA Data.	Internal Process. Electronic or other method, as agreed.
3.3.10.9	On change of GSP Group.	Send notification of a change to the GSP Group. Validate D0052 and notify Supplier of any exceptions as per 3.3.10.4 to 3.3.10.6 above. Process in accordance with 2.3.5 - Disconnection of a SVA Metering System and 2.2.1 - Supplier requests New Connection.	Supplier. NHHDC NHHDC.	NHHDC. SMRA Supplier	D0052 Affirmation of Metering System Settlement Details. D0205 Update Registration Details D0310 Notification of Failure to Load or Receive Metering System Settlement Details[12]. See Appendix 4.12 – Usage and Validation of Affirmation of Metering System Settlement Details (D0052) Flow	Electronic or other method, as agreed. Internal Process.

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3.3.11. Calculate AA/EAC Values and send to NHHDA and Supplier.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.11.1	In accordance with SVAA Calendar.	Send Daily Profile Coefficients (via section 3.1.2 - Process Daily Profile Coefficients received from SVAA).	SVAA.	NHHDC[72].	D0039 Daily Profile Coefficient File.	Electronic Interface.
3.3.11.2	If profile data not received.	Inform SVAA and await receipt of profile data.	NHHDC.	SVAA.	P0040 Request Daily Profile Coefficient	Manual Process.
3.3.11.3	Following receipt of profile data.	Calculate the AA and or EAC for the MAP, based on the valid Meter data[73]. Where the new EAC is negative, calculate a replacement EAC.	NHHDC[74].		Check that the date and version stamps on sets of Daily Profile Coefficients received are consistent with those on data sets already received. Appendix 4.9 - EAC/AA Calculation. Appendix 4.5.2 e) – Replacement EAC/AA Calculation.	Internal Process.
3.3.11.4	If AA and or EAC calculation fails.	Correct and re-run AA and or EAC calculation.	NHHDC.			Internal Process.

[72] The NHHDC must ensure that initial sets of Daily Profile Coefficients are loaded into the AA/EAC system in ascending Settlement Date order (i.e. a file must already have been loaded for the previous Settlement Day) and in correct version sequence (although version numbers may not be sequential) for any file type/GSP Group combination.

[73] If the CoS business event is triggering this process, then the old NHHDC will provide an AA up to and including SSD-1 and the new NHHDC will provide an EAC from SSD.

[74] The NHHDC will be required to store and retrieve the smoothing parameter for use in calculating the EACs. The NHHDCs system must validate that the value provided for the smoothing parameter is a positive number.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.11.5	If AA and or EAC calculation successful. By the next Volume Allocation Run, if the D0023 data flow was received from the NHHDA at least 14 WD before that Run, Or by the Volume Allocation Run after next if the D0023 data flow from the NHHDA was received less than 14 WD before the next Reconciliation Run.	Send AA and or EAC[75] If problem with file not caused by NHHDA notify NHHDC Generate a revised file and send or resend an exact copy of file.	NHHDC[76] NHHDA. NHHDC[76].	NHHDA, Supplier[77]. NHHDC. NHHDA, Supplier.	D0019 Metering System EAC/AA Data. P0035 Invalid Data (for physical integrity problems) or D0023 Failed Instructions (for instruction level problems). D0019 Metering System EAC/AA Data.	Electronic Interface.
3.3.11.6	After 3.3.11.5 and by 20 WD after AA/EAC calculation.	Determine whether the AAs, which are outside the tolerances and have been included in the exception log, are invalid. Proceed in accordance with section 3.3.8.3 Withdrawal of Meter Reading following Review if any AA is invalid.	NHHDC.		Determine whether AA value is genuine. Appendix 4.9 - EAC/AA Calculation.	Internal Process.

[75] The EAC value sent to the NHHDA and Supplier will normally be that calculated in step 3.3.11.3, but may be substituted in accordance with paragraph 4.5.2(e) or step 4.14.4.7.
[76] This may be an old NHHDC in the case where there has been a change of NHHDC.
[77] The NHHDC will send the data (AA and or EAC) only to their respective Supplier / NHHDA.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.11.7	By the 20th day of the month[78].	Send notification of those AAs which were included in the excessively large AAs exception log in 3.3.11.6, and the status of each exception following investigation[79].	NHHDC	Supplier[80]	P0191 Excessively Large AA.	Manual Process

[78] Or if the 20th is not a working day, the next working day.
[79] If specified by the Supplier, the report may contain only the valid AAs from the exception log.
[80] The NHHDC will send the exceptions to their respective supplier.

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3.3.12. Correct Incorrect Register Mapping.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.12.1	On notification	Inform Supplier of Incorrect Register Mapping.	NHHDC[81]	Supplier	P0216 - Notification of Incorrect Register Mapping	Electronic or other method as required
3.3.12.2	Within 5 WD of notification or discovery of incorrect register mapping	Instruct NHHDC to correct incorrect register mapping.	Supplier	NHHDC	P0216 - Notification of Incorrect Register Mapping	Electronic or other method as required
3.3.12.3	Following 3.3.12.2	Obtain Meter reading and correct register mapping.	NHHDC		Appendix 4.10 - Correction of Incorrect Meter Register Mapping	Internal Process
3.3.12.4	Within 5 WD of 3.3.12.3	Correct Meter Register Mapping.	NHHDC		Appendix 4.10 - Correction of Incorrect Meter Register Mapping Proceed to section 3.4.1 – NHHDC collects and sends consumption / generation data to validate the meter register readings(s).	Internal Process
3.3.12.5	Within 5 WD of 3.3.12.3	Notify the Supplier that suitable Meter reading is unavailable.	NHHDC	Supplier[82]	P0216 - Notification of Incorrect Register Mapping	Electronic or other method as required

[81] Supplier may be notified of Incorrect Register Mapping by other participants.
[82] The Supplier will liaise with the NHHMOA and NHHDC to determine what action is required next.

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3.3.13. Identification of Long Term Vacant Sites.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.13.1	Following receipt of second D0004[83].	Identification of site as Long Term Vacant in accordance with appendix 4.15.1 Establish start date for the Long Term Vacant period in accordance with appendix 4.15.2.	Supplier		Appendix 4.15 - Identification of a site as Long Term Vacant.	Internal Process
3.3.13.2	Following 3.3.13.1	Send notification of zero EAC for the site, where the Effective From Date shall be the start date for the period of Long Term Vacant treatment. Send reading obtained through entry via a warrant if appropriate[84] with a read date of the Effective From Date of the zero EAC.	Supplier	NHHDC	D0052 Affirmation of Metering System Settlement Details. D0010 Meter Readings	Electronic or other method, as agreed
3.3.13.3	Within 10 WD of receipt of D0052	Obtain Meter reading for the Effective From Date of zero EAC. If Meter Register Reading is not available, deem a Meter reading in accordance with Appendix 4.5.2 (q)	NHHDC		Appendix 4.5 – Deemed Meter Advance.	Internal Process
3.3.13.4	If Meter reading is deemed	Send notification of deemed Meter reading for Effective From Date of zero EAC.	NHHDC	Supplier, LDSO	D0010 Meter Readings.	Electronic or other method, as agreed
3.3.13.5	Following 3.3.13.3	Calculate AA up to the Effective From date of zero EAC.	NHHDC		Appendix 4.9 - EAC/AA Calculation.	Internal Process
3.3.13.6	Following 3.3.13.5	Send AA and the zero EAC.	NHHDC	NHHDA Supplier	D0019 Metering System EAC/AA Data.	Electronic or other method, as agreed

[83] D0004 'Notification of Failure to Obtain a Reading' with the J0024 data item populated with Site Visit Check Code 02 'Site not occupied'.
[84] This is an optional process step which can be followed if the Supplier identifies a site re-entering the LTV process having previously fallen out of the process due to a warrant read being obtained

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.13.7	On receipt of D0019	Process Data in accordance with BSCP504 Section 3.5.	NHHDA		D0019 Metering System EAC/AA Data.	Internal Process
3.3.13.8	On Request by LDSO[85]	Send Details of Long Term Vacant Sites.	Supplier	LDSO	P0221 'Notification of Long Term Vacant Site'.	As agreed between Supplier and LDSO
3.3.13.9	No later than 215 calendar days from identification or last confirmation of site as LTV	Confirm that site remains Long Term Vacant in accordance with Appendix 4.15.3.	Supplier		Appendix 4.15.3 - Confirmation that the Site remains Long Term Vacant.	Internal Process

[85] The timescales, the method of communicating the report, the format of the report and any extra details to be included should be agreed between the Supplier and LDSO.

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3.3.14. Identification of Sites that no longer qualify for Long Term Vacant Treatment.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.14.1	As appropriate	Supplier identifies that site no longer qualifies for Long Term Vacant treatment in accordance with appendix 4.15.4. Establish end date for the Long Term Vacant period in accordance with appendix 4.15.5.	Supplier		Appendix 4.15 - Identification of a site as Long Term Vacant.	Internal Process
3.3.14.2	If Supplier has a Meter Reading for end of LTV Period[86]	Send Meter Reading if not previously provided by the NHHDC.	Supplier	NHHDC	D0010 Meter Readings	Electronic or other method, as agreed
3.3.14.3	If Supplier has no Meter reading or as required, alongside 3.3.14.2	If Supplier has no Meter reading to send or Supplier wishes to specify a different EAC to the one expected to be calculated by NHHDC; send non-zero EAC[87].	Supplier	NHHDC	D0052 Affirmation of Metering System Settlement Details	Electronic or other method, as agreed
3.3.14.4	Within 10 WD of receipt of D0052	If the Supplier did not provide Meter Register reading, obtain Meter Register reading for date of change of EAC value or deem Meter reading in accordance with appendix 4.5.2 (q)	NHHDC		Appendix 4.5 – Deemed Meter Advance	Internal Process
3.3.14.5	If Meter reading deemed	Notification of Deemed Meter Reading.	NHHDC	Supplier, LDSO	D0010 Meter Readings	Electronic or other method, as agreed

[86] If the Supplier does not have a Meter reading for the date that the site ceased to be Long Term Vacant, the Supplier will only send the D0052 to the NHHDC containing a non-zero EAC for the site and the Effective From Date of that EAC.

[87] The Code specifies that the Supplier may choose to use the initial (class average) EAC for a site that has previously been treated as Long Term Vacant, or an EAC that the Supplier reasonably believes is most likely to represent the rate of generation or demand for that Metering System. If the Supplier does not send a D0052 alongside the D0010, the NHHDC should pass the EAC calculated in accordance with Appendix 4.9 into Settlement.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.14.6	Following 3.3.14.4	Calculate AA up to the Effective From Date of the new EAC or date of Meter reading. If no EAC provided by Supplier, calculate EAC.	NHHDC		Appendix 4.9 - EAC/AA Calculation.	Internal Process
3.3.14.7	Following 3.3.14.6	Send EAC/AA Data.	NHHDC	NHHDA Supplier	D0019 Metering System EAC/AA Data	Electronic or other method, as agreed
3.3.14.8	On receipt of file.	Process EAC/AA data in accordance with 3.5.	NHHDA.		D0019 Metering System EAC/AA Data.	Internal Process.

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3.4 Collection Activities.

3.4.1 NHHDC collects and sends consumption / generation data.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.1.1		Metered Supply:				
		Collect Meter register reading(s)[88] for designated SVA MS(s) either directly or via Supplier.	NHHDC.		Complete Site Visit of SVA Metering System – Site Visit Report - Appendix 4.1.	Internal Process.
		Send customer Meter register reading or prepayment Meter register reading(s) to NHHDC.	Supplier.	NHHDC.	D0010 Meter Readings. Prepayment Meters – Appendix 4.11 Remotely Read Meters – Appendix 4.20	Electronic or other method, as agreed.
		Send smart Meter register readings to NHHDC.	Supplier	NHHDC	D0010 Meter Readings	Electronic or other method, as agreed
		Send customer reading(s) directly to NHHDC.	Customer.	NHHDC.	Customer Reading Details	
		Inform of possible safety problem(s).	NHHDC.	SFIC.	D0135 Report Possible Safety Problem.	Electronic or other method
		Inform of possible irregularities.	NHHDC.	Supplier	D0136 Report to Supplier of Possible Irregularity.	Electronic or other method
		Unmetered Supply:				

[88] The NHHDC will inform the Supplier if the SVA MS equipment is inadequate or that insufficient data about a SVA MS is available. The Supplier will investigate the situation and ensure that the SVA MS and the information provided are adequate. Where a SVA MS is de-energised the NHHDC shall make visits to the site concerned every 12 months. The NHHDC shall provide the latest meter readings to the LDSO for all SVA Metering Systems for which it is responsible, as soon as possible and on a regular basis. (assume this last point wouldn't apply for smart)

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
		Send UMS EAC	UMSO/ Supplier	SMRA	D0052 Affirmation of Metering System Settlement Details[89] D0205 Update Registration Details	Electronic or other method, as agreed.
3.4.1.2	If Meter register reading(s) unobtainable.	Add SVA MS(s) to next collection rota.	NHHDC.			Internal Process.
3.4.1.3	On receipt of D0052 from UMSO.	Validate D0052.	NHHDC		See Appendix 4.12 – Usage and Validation of Affirmation of Metering System Settlement Details (D0052) Flow	Internal Process.
3.4.1.4	If D0052 is invalid.	Send notification of invalid Metering System Settlement details.	NHHDC	UMSO, Supplier	D0310 Notification of Failure to Load or Receive Metering System Settlement Details[12]	Electronic or other method, as agreed.
3.4.1.5	If Meter register reading(s) obtained.	Process[90] and validate Meter register reading(s). If SVA MS recorded as de-energised but consumption identified either remotely or by visiting the site record and process this data.	NHHDC.		Appendix 4.2 - Validate Meter Data, Appendix 4.6 - Manual Adjustment of Meter Reading(s). [we will modify reading validation if necessary to accommodate smart]	Internal Process

[89] Where a D0052 Affirmation of Metering System Settlement Details, electronic or otherwise, is received from UMSO or Supplier for an Unmetered Supply, this value must be sent to the NHHDA on a D0019 Metering System EAC/AA Data for use in Settlement. The D0052 Affirmation of Metering System Settlement Details received from UMSO should be used in preference where available.

[90] The NHHDC will always apply the 'Meter Register Multiplier' and the 'Pulse Multiplier', as provided by the MOA in the D0150 Non-Half Hourly Meter Technical Details data flow.

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REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.1.6	If invalid Meter register reading(s).	Produce and send Invalid Data Report.	NHHDC.	Supplier, LDSO	D0010 Meter Readings.	Electronic or other method, as agreed.
3.4.1.7	If valid Meter register reading(s).	Produce and send Valid Data Report.[91]	NHHDC.	Supplier, LDSO	D0010 Meter Readings. Refer to section 3.3.11 - Calculate AA/EAC Values and send to NHHDA and Supplier.	Electronic or other method, as agreed.
3.4.1.8	By 7th calendar day of each month.	Produce and send report relating to previous calendar month detailing whether 100kW demand was identified in Metering Systems for which the NHHDC is the appointed NHHDC within the period of the report.	NHHDC.	Panel, Supplier.	P0028 100kW Demand Report - if no 100kW demand is identified, a 'nil' P0028 report.	Electronic or other method, as agreed.

[91] Prepare valid data reports including active, reactive and maximum demand readings.

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3.4.2 NHHDC investigates inconsistencies.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.2.1	As deemed necessary.	Send notification of inconsistencies e.g. any gaps, overlaps, missing or invalid AAs etc.	Supplier MOA NHHDA.	NHHDC.	As appropriate: Details of inconsistencies to be investigated, including any relevant supporting information (e.g. copies of data flows highlighting the inconsistencies).	Electronic or other method, as agreed.
3.4.2.2		Investigate inconsistencies[92], take corrective action and inform respective parties of action taken. Re-send AAs (and EACs if previously sent) to the NHHDA and Supplier. Process EAC/AA data in accordance with section 3.5.	NHHDC. NHHDA.	Supplier, NHHDA.	Complete Site Visit of SVA Metering System – Site Visit Report - Appendix 4.1. D0019 Metering System EAC/AA Data.	Electronic or other method, as agreed.

[92] If fault identified covers a CoS, the CoS reading and EAC shall be used and sent to the NHHDA. However, if the fault covers the final Stage 2 Run, a class average EAC will be used and sent to the NHHDA.

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3.4.3 Compensating Crystallised Errors

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.3.1	In the circumstances defined in Appendix 4.14	Request that Gross Volume Correction is carried out	Supplier	NHHDC	Details of Meter register readings to which Gross Volume Correction should be applied.	Fax / Email / Post
3.4.3.2	As soon as possible after 3.4.3.1	Where NHHDC believes that request for Gross Volume Correction does not meet the criteria in Appendix 4.14, refer request back to Supplier along with supporting rationale Return to 3.4.3.1	NHHDC	Supplier	Appendix 4.14 – Gross Volume Correction Details of application of Gross Volume Correction in 4.14.3 – 'Use of Gross Volume Correction'	Fax / Email / Post
3.4.3.3	As soon as possible after 3.4.3.1 or as otherwise agreed with the Supplier	Where appropriate, carry out Gross Volume Correction[93]	NHHDC		Appendix 4.14 – Gross Volume Correction	Internal Process
3.4.3.4	Following completion of Gross Volume Correction	Send notification of Deemed Meter Readings used for Gross Volume Correction Send notification of revised EAC / AAs The revised AA/EAC will be calculated in accordance with section 3.3.11. The EAC value sent to the NHHDA and Supplier will normally be that calculated in accordance with step 3.3.11.3, but may be substituted in accordance with step 4.14.4.7	NHHDC NHHDC	Supplier Supplier, NHHDA	D0010 Meter readings D0019 Metering System EAC/AA Data Process EAC / AA in accordance with section 3.5	Electronic or other method as agreed

[93] Please note that, whilst Gross Volume Correction is usually requested by the Supplier, the NHHDC can initiate Gross Volume Correction, although only with the approval of the relevant Supplier or Suppliers. Such approval can be obtained on per-instance or a delegated authority basis, as agreed with the Supplier.

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3.5 Instruction Processing.

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5.1	On receipt of file.	Perform validation checks.	NHHDA.		D0019 Metering System EAC/AA Data.	Internal Process.
3.5.2	If validation successful.	Update database with instruction data.	NHHDA.		D0019 Metering System EAC/AA Data.	Internal Process.
3.5.3.	If validation unsuccessful.	Notify NHHDC of problem.	NHHDA.	NHHDC.	P0035 Invalid Data (for transmission problems). D0023 Failed Instructions (for instruction level validation problems).	Electronic or other method, as agreed.
3.5.4	Upon receipt of failure notification.	If transmission problem, resend exact copy of instruction file with the same file sequence number. Upon request by the NHHDA If file validation problem, generate and send revised file. If problem believed to be caused by NHHDA, notify NHHDA.	NHHDC. NHHDC	NHHDA, Supplier. NHHDA NHHDA, Supplier. NHHDA.	D0019 Metering System EAC/AA Data. Resend an exact copy of an instruction file with the same file sequence number D0019 Metering System EAC/AA Data. As appropriate.	Electronic or other method, as agreed.
3.5.5	When notified of any other file instruction file error by the NHHDA	Resolve the problem and generate a revised instruction file containing all instructions required to rectify the situation.	NHHDC	NHHDA	The revised file shall contain all instructions from the erroneous file and any instructions contained in subsequent files sent to the NHHDA	Electronically or other method, as agreed.
3.5.6	Following 3.5.5 and 3.5.6	Inform of the file sequence number of the revised file and send the revised instruction file	NHHDC	NHHDA		Electronically or other method, as agreed.

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REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5.7	Notification from NHHDA of error within an instruction	Rectify the erroneous instruction and re-send the instruction in the next instruction file with a new instruction number contiguous in that file	NHHDC	NHHDA		Electronically or other method, as agreed.
3.5.8	Following the correction of an error.	When sending a revised file or re-sending a copy of an instruction file to its NHHDA, provide the same files to the Supplier.	NHHDC	Supplier		Electronically or other method, as agreed.

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3.6 Revenue Protection

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.6.1	When informed by the Revenue Protection Service that there is evidence of tampering with a SVA Metering System	Record an adjustment to the meter advance based on the unrecorded units estimated by the Revenue Protection Service.	NHHDC			Internal Process.
3.6.2	After 3.6.1 occurs	Calculate a new EAC and AA based on the adjusted meter advance and send the new EAC/AA	NHHDC	NHHDA Supplier	D0019 'Metering System EAC/AA Data'	Electronically or other method, as agreed.

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4. Appendices

4.1 Site Checks of SVA Metering System - Site Visit Report.

The following checks shall be carried out by the NHHDC when visiting a site with a NHH SVA MS installed:

1. Any changes to site which could affect the Profile registered in SMRS
2. Energisation Status (i.e. on/off)
3. Number of Maximum Demand Register (MDR) Resets where appropriate
4. Zero reading on an MDR, if fitted
5. Whether the MDR is on full scale, if fitted
6. Any evidence of suspected faults to the SVA MS
7. Any evidence of damage to LDSO equipment
8. Whether any timeswitch is set to the incorrect time
9. Evidence of tampering with the SVA MS or LDSO equipment, particularly seals
10. Evidence of stopped meters (particularly zero advance on an occupied premises - refer to Appendix 4.2 - Validate Meter Data.)
11. Evidence of supply being taken when the meters are de-energised
12. That the time and date shown on the Meter are correct

The following checks shall be carried out by the NHHDC when remotely contacting a site with a NHH SVA MS installed:

1. Energisation Status (i.e. on/off)
2. Number of Maximum Demand Register (MDR) Resets where appropriate
3. Zero reading on an MDR, if fitted
4. Any evidence of suspected faults to the SVA MS
5. Whether any timeswitch is set to the incorrect time
6. That the time and date shown on the Meter are correct

For the avoidance of doubt, checks undertaken remotely are referred to as site visit checks and relate (where appropriate) to DTC data item J0024 ‘Site Visit Check Code’.

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If the Meter time and data collection system time differ by more than 20 seconds and less than 15 minutes then the Outstation time shall be corrected by the data collection system. If the time differs by more than 15 minutes then the NHHDC shall send a D0001 'Request Metering System Investigation' to the NHHMOA.

The NHHDC shall receive and record cumulative meter readings and maximum demand readings from its Associated MOA following any change of meter detail, any fault rectification and any de-energisation or energisation of Metering Equipment. The NHHDC will report this information to the Supplier, LDSO, MOA, as appropriate via the Site Visit Report.

4.2 Validate Meter Data.

[This section may be modified in line with any new/relaxed validation requirements for smart meters.]

The minimum validation rules contained within BSCP504 apply equally for whether the reading to be validated lies after other valid Meter readings, before other Meter readings or between other Meter readings.

The validation requirements described below are the minimum requirements that the NHHDC shall carry out for each Settlement Register:

1. Check that where data is collected at site the Meter serial number for the MSID is the same as the serial number provided by the MOA for that MSID.

2. Check that the date of Meter reading is after the date of the last valid Meter reading.

   In the Change of Supplier scenario, where no Meter reading history has been received:

   - In the case of validating a Meter reading, using subsequent Meter readings, the date of the reading to be validated against will be before the date of the reading used to validate;

   - In the case of validating a Meter reading, using Meter readings either side, the date of the reading to be validated against will be between the date of the readings used to validate; and

   - The reading(s) used in validation will not have passed BSC Validation as there would have been nothing to validate these readings against.

3. Check for zero consumption, where the zero consumption/generation on the Meter register is not necessitated by the Time Pattern Regime, and if so:

   3.1 check for previous zero consumptions/generations,

   3.2 check for zero MD,

   3.3 check Site Visit Report.

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3.4 check whether Metering System is being settled on a zero EAC, for example, the Supplier is treating the site as Long Term Vacant.

If zero explained by historical consumption, Site Visit Reports, Time Pattern Regime, or Metering System being settled on a zero EAC, then valid, otherwise invalid.

4. Check for negative consumption/generation and if so:

4.1 check for Meter rollover

4.2 check if the previous Meter register reading is a deemed reading and that the reading prior to the deemed reading is an actual Meter register reading, and that the current Meter register reading advance creates a positive consumption/generation with respect to the last actual Meter register reading (i.e. obtained prior to the deemed reading), making allowance for any Meter register rollover (Appendix 4.1),

if so then reading valid, otherwise invalid

5. Check consumption/generation does not exceed twice the expected advance.

(using the EAC times the Profile Coefficient, or some other equivalent method.) Where the reading to be validated does not come after other validated readings the expected advance may be calculated using either:

- the class average Estimated Annualised Consumption (EAC) times the profile coefficient or some other equivalent method, and the first Meter reading available; or

- the Annualised Advance (AA), determined from two readings either side of the reading to be validated, times the Profile Coefficient.

Note that where Profile Coefficients are not yet available they may be submitted by using the Profile Coefficients from the same period last year. If consumption/generation does exceed twice the expected advance, this Meter register reading will fail validation, except where it is caused by a seasonal register Time Pattern Regime. However, a facility to review all Meter register readings which fail validation will be available. Based on this review, the NHHDC may choose to set it to valid and the status may be altered, where good reason exists. If not exceeded then the Meter register reading is valid.

6. Compare actual and expected Meter register readings and identify missing and overdue Meter register readings, in particular meters that have not been read by the Final Reconciliation Volume Allocation Run.

7. Check that the number of MD resets is not greater than one since the last time that the MD was reset by a person authorised by the NHHDC. Where

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the number of resets is unexplained, the Meter register reading(s) recording energy remain valid unless invalid for a separate reason.

8. For multi-register meters check that all registers have the same date of reading.

9. The NHHDC must inform the MOA of any error flags received from the Meter and record the reasons for accepting any error flagged data into Settlements.

10. The validation must retain the original value, the initial validation flag, the reason for failure where the flag is invalid and the reason for changing the status to valid.

4.3 Withdrawing Meter Reading(s) / AA/EAC(s).

Where a SVA Metering System has a fault identified with it, it will be necessary to 'roll back' to the last valid Meter register reading. Where the NHHDC is notified of a fault by the MOA the NHHDC will:

1. set the status of all subsequent readings to 'Withdrawn'.

2. set the status of all Meter advances / AAs starting on or after the date of the last valid reading to 'Withdrawn'.

3. set the status of all EACs effective after the date of the last valid reading to 'Withdrawn'.

4. replace the withdrawn EAC/AA with EAC/AA from last valid meter reading for each Settlement Register.

5. roll all Settlement Registers for the relevant SVA Metering System back to the same date.

Where the Supplier Start Date for a change of Supplier occurs in relation to a SVA Metering System for which the NHHDC is responsible which has a fault which could affect the accuracy of data for the purposes of Settlement and which has not been remedied at that time, the CoS (Change of Supplier) meter reading and revised EAC shall be used as the last valid meter reading and EAC. When the period of a fault covers SVA Final Reconciliation Volume Allocation Run a class average EAC shall be used for the period from Final Reconciliation Volume Allocation Run to the rectification of the fault.

Where the NHHDC has not received confirmation from the relevant Associated MOA within a month of the status of the SVA Metering System following a fault report from the Associated MOA, it shall continue to request confirmation of rectification of the fault from such Associated MOA not less than once each month.

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4.4 Change of Supplier Activities

4.4.1 Precedence of Meter Readings - Change of Supplier.

All valid actual (remote, MOA, NHHDC, and Customer Own) readings are potential candidates for the CoS reading, provided they are read within the SSD ±5 days.

If the first reading after SSD is a Final read then this must be used, irrespective of any other reads available.

The reading closest to (ignoring sign) or on SSD is used to generate the SSD reading. If there are multiple reads on the same day then the precedence (if systems can cope) is Remote (1st choice), MOA Final, NHHDC, Customer Own reading (last choice).

If two reads fall equally either side of SSD, then the +SSD read is used.

If no valid Remote, MOA Final, NHHDC or Customer own reading is available within SSD +5 days, then a valid Old Supplier Estimated reading (if received) must be used.

It should be noted that the precedence rules for selecting a CoS Meter reading are different when the process is carried out 30 Working Days or more after the SSD, in that a valid SAR reading should be used in precedence to any other reading.

4.4.2 Supplier Agreed Readings

If the SAR is received but the NHHDC does not have the Meter reading history to validate it, then this should not be entered into Settlements. The NHHDC should hold onto the SAR reading until it is possible to validate it, either through subsequent receipt of the Meter reading history or when following readings are taken to allow validation backwards.

This reading should take precedence over any other reading, providing it is valid.

4.4.3 Use of PoS Readings in the Change of Supplier Process

If the new Supplier takes a PoS reading, he may choose to send this to the new Non-Half Hourly data Collector (NHHDC), via the D0071 'Customer Own Readings or Supplier Estimate Reading on Change of Supplier'. If provided, the reading shall be flagged as a customer own reading.

If the new NHHDC receives a Customer own reading from the new Supplier with a reading date of greater than 5 days before the Supplier Start Date (i.e. reading date before SSD-5), then it is up to the new NHHDC to choose whether to process it as follows, or not.

When Meter reading history is available, the new NHHDC must validate the PoS reading against the history. If the reading is valid, it can be entered into the reading history as an actual reading. The PoS reading can then be used in the following scenarios:

- To deem a CoS reading, in accordance with section 4.5.2.a); and

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- In the same way as any other Meter reading for validation purposes, once the PoS reading has been entered into the Meter reading history.

Whilst the new NHHDC can use the PoS reading to calculate an Annualised Advance (AA) for the period prior to the new Supplier's registration to the Metering System, or to calculate an Estimated Annual Consumption (EAC) from the period after the PoS reading, this AA and / or EAC must not be sent to the Non-Half Hourly Data Aggregator (NHHDA) as it must not enter Settlements.

Where, for the purposes of minimising the costs of rectifying erroneous registrations, Suppliers agree to a meter reading for SSD that results in a 1kWh advance this shall be processed by the NHHDC as a "customer own read" type in the manner set out in 3.2.6.15 above so long as:

a. the earlier of the meter reading dates resulting in 1kWh advance is within 3 calendar months of the new Supply Start Date; and

b. the Associated Supplier confirms to the incoming NHHDC that the old Supplier with whom he has reached an agreement for a 1kWh advance is not seeking a similar agreement in respect of more than one hundred SVA Metering systems erroneously registered on one Settlement Day (For the avoidance of doubt, a concurrent change of Supplier and change of Agent does not preclude Suppliers from using a 1kWh advance to make a correction if no further change to the Profile class, NHHDC, Associated NHHDA, Measurement class or Standard Settlement Configuration has taken place)

c. No change in the MSID attributes of Profile class, NHHDC, Associated NHHDA, Measurement class or Standard Settlement Configuration has taken place;

d. There is no intervening meter reading or meter change between the previous registration and the current registration.

4.5 Deemed Meter Advance

A Deemed Meter Advance may be calculated in the circumstances set out in section 4.5.2 for the purpose of calculating a Deemed Meter Reading, provided that the NHHDC has satisfied the criteria set out against each circumstance prior to the Deemed Meter Advance being calculated.

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4.5.1 Definitions

For the purposes of this BSCP, the following definitions apply:

Deemed Meter Advance	As defined in Annex X-2 of the Code
Deemed Meter Advance Period	As defined in Annex S-2 of the Code
Deemed Meter Reading	As defined in Section 1.6.2
Last Valid EAC	An EAC which has been created from the last valid AA for a Particular Metering System. Where the Last Valid EAC cannot be calculated as there is no last valid AA, the Last Valid EAC will be defined as the initial (class average) EAC

4.5.2 Deeming circumstances

A Deemed Meter Reading shall be calculated as set out below if a valid actual Meter register reading cannot be obtained in the following circumstances:

- Change of Supplier;
- Disputed change of Supplier Meter reading;
- Concurrent change of Supplier and change of Measurement Class;
- Change of LDSO; and
- At the RF to ensure that crystallised data is not changed post the RF.

In all other circumstances set out below, a Deemed Meter Reading may be calculated if required by the Supplier. In all cases, the NHHDC shall retain an audit trail to prove that all steps set out below have been completed before a reading is deemed.

Where a Deemed Meter Advance is calculated, it shall be calculated using a system or process so approved in accordance with BSCP537 using the formulae set out in Annex S-2 of the Code. The Deemed Meter Advance can then be used to calculate a Deemed Meter Reading.

Wherever the NHHDC has deemed a Meter reading, the NHHDC shall provide the Deemed Meter Reading and the date of the Deemed Meter Reading to its Supplier.

Where a Deemed Meter Advance has been calculated, this indicates that the process has broken down. The Supplier shall investigate the root cause of the problem and attempt to resolve the underlying issue in all cases where a reading has been deemed.

If a Deemed Meter Reading has been calculated but subsequently the actual Meter register reading for the same Settlement Day (or for a day between SSD-5 and SSD+5 for a change of Supplier), is provided and the actual Meter register reading passes validation, the Deemed Meter Reading should be replaced with the actual Meter register reading.

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The NHHDC shall provide an exception and control report for each run of the EAC/AA and Deemed meter advance calculation processes. Such report shall include details of any SVA Metering System for which EAC/AA or Deemed meter advances have not been calculated including the reason therefor.

a) Change of Supplier

Note that for the purposes of this section, it is assumed that the change of Supplier is concurrent with a change of NHHDC, meaning that information must be passed between the old and new NHHDCs. Where there is no concurrent change of NHHDC, the NHHDC is required to obtain or deem a change of Supplier reading in the timescales below, pass the reading to the old and new Suppliers and pass subsequently calculated EACs / AAs to the appropriate NHHDA(s) in the same way as detailed for the old and new NHHDC below.

On a change of Supplier, if no valid actual Meter register reading is obtained by the new NHHDC in the SSD-5 and SSD+5 window, the new NHHDC is required to calculate a deemed change of Supplier reading for the change of Supplier date.

The new NHHDC shall request the current EAC and Meter reading history from the old NHHDC and the old NHHDC shall provide this to the new NHHDC.

If a valid actual Meter register reading is received between SSD+5 and SSD+8, this reading is used by the NHHDC for the calculation of a Deemed Meter Reading for the date of the change of Supplier. The NHHDC shall calculate an AA from the Meter register reading obtained between SSD+5 and SSD+8 and the last valid Meter register reading.

The NHHDC shall then calculate a Deemed Meter Reading for the date of the change of Supplier using a Deemed Meter Advance calculated using this AA over the Deemed Meter Advance Period starting from the date of the last valid Meter register reading and ending on the day before the date of the change of Supplier.

If a valid actual Meter register reading is not obtained between SSD+5 and SSD+8, the new NHHDC should use the EAC and Meter reading history provided by the old NHHDC to deem a reading for the date of the change of Supplier using the last actual valid read taken[94] (providing one is available) and a Deemed Meter Advance calculated using the Last Valid EAC, over the Deemed Meter Advance Period starting from the date of the last valid read and ending on the day before the date of the change of Supplier.

If the New NHHDC has not received the EAC and Meter reading history from the old NHHDC by SSD+8, the new NHHDC will request this information again from the old NHHDC. Where Meter reading history is subsequently provided, the NHHDC should use this to validate any change of Supplier reading that they have, or if no actual change of Supplier reading is available, use the Meter reading history to deem a change of Supplier reading.

[94] If no valid actual readings are available but a valid Deemed reading is available, this reading can be used instead.

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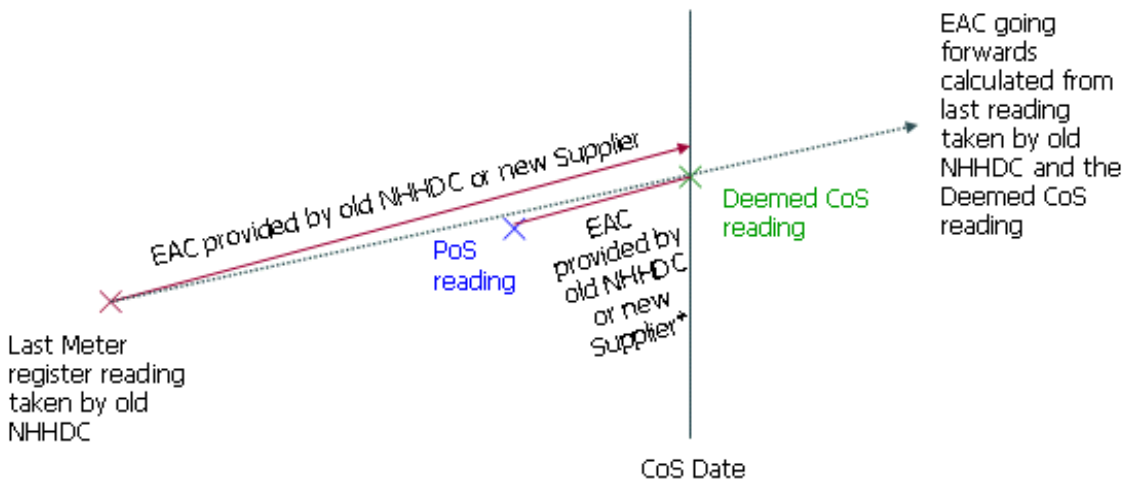
If that process fails, the new NHHDC may request the Meter register reading history from the new Supplier (if the old NHHDC fails to provide this within 10 WD of a second request) and may use the Meter reading history received from the new Supplier to deem a change of Supplier reading in accordance with section 3.2.6.

If the new NHHDC does not receive, obtain or collect a valid CoS reading, then the new NHHDC should deem a CoS reading. The PoS reading can be used in this process providing that it is the most recent valid Meter reading prior to the CoS. Where this is the case, the new NHHDC should use the EAC provided as part of the reading history in the deeming calculation over the Deemed Meter Advance Period starting on the date of the PoS reading and ending on the date prior to the day of the CoS reading and the actual PoS reading to calculate the deemed CoS.

The EAC going forwards should be calculated using the Meter reading history obtained from the old NHHDC or sent by the new Supplier, i.e. using the deemed CoS reading, the last Meter register reading obtained from the old NHHDC or New Supplier and the previous EAC from the old NHHDC or New Supplier.



* The EAC provided by the old NHHDC or new Supplier is applied over the Deemed Meter Advance Period (starting on the date of the PoS reading and ending on the date prior to the day of the CoS reading).

If a Meter register reading has been taken in the SSD+6 to SSD+8 window, meaning that a CoS reading should be deemed using an AA as opposed to an EAC, the PoS reading can also be used in this calculation.

If there is a CoS reading which at the time of the CoS was unable to be validated, once more readings become available, the actual CoS reading should be validated in accordance with section 4.2, in preference to deeming a CoS reading using the subsequent Meter readings.

If the Meter reading history is not provided and any existing CoS reading has failed validation, the new NHHDC shall deem a change of Supplier reading (unless Suppliers are using the SAR process, in which case the SAR will need to be validated by the next reading. See Appendix 4.4.2 Supplier Agreed Readings), when

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either one or two new actual Meter register readings are obtained either in line with the reading cycle for that Metering System or obtained as special readings, provided that the first Meter reading is at least 10 Working Days after the new NHHDC requested the EAC and Meter reading history from the old NHHDC and both Meter register readings must be within 12 months of the change of Supplier. The initial Deemed Meter Reading shall be calculated either using the first actual Meter register reading obtained and Deemed Meter Advance calculated using an initial (class average) EAC or using the first two actual Meter register readings obtained and the Deemed Meter Advance calculated using the AA calculated using these Meter register readings over the Meter Advance Period starting on the date of the change of Supplier and ending on the day before the date that the first (in the case of only one Meter register reading being taken) or second (in the case of two Meter register readings being taken) actual Meter register reading was obtained.

Once the change of Supplier reading has been deemed, the new NHHDC shall provide this reading to the new Supplier and the old NHHDC shall pass this reading onto the old Supplier.

The new NHHDC shall determine the EAC from the date of the change of Supplier reading in accordance with 3.3.11 (or AA if this reading was calculated by deeming backwards from the first actual reading taken by the new NHHDC) and shall provide this with corresponding Effective From Settlement Date to the new NHHDA.

The old NHHDC shall determine the AA from the last valid Meter register reading to the date of the change of Supplier reading in accordance with 3.3.11 and send this with corresponding Effective From Settlement Date and Effective To Settlement date to the new NHHDA.

b) Disputed Change of Supplier Reading

The new Supplier can dispute the change of Supplier reading at any point up to twelve months after the change of Supplier, where in the Supplier's view there is difference of more than 250kWh from the original change of Supplier reading. At this point, the old and new Suppliers will attempt to agree a change of Supplier reading for the Metering System, which will be processed in accordance with section 3.2.6.

Where the Suppliers cannot agree on a change of Supplier reading, the new Supplier will request that its NHHDC obtains a current Meter register reading for the Metering System. The NHHDC will then calculate an AA from the current Meter register reading and the last valid Meter register reading obtained prior to the change of Supplier.

The NHHDC will then calculate a Deemed Meter Reading for the day of the change of Supplier using a Deemed Meter Advance calculated from this AA and the last valid Meter register reading taken prior to the change of Supplier over the Deemed Meter Advance Period starting from the date of the last actual valid read and ending on the day before the date of the change of Supplier.

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If the difference between the revised change of Supplier reading and the original change of Supplier reading is less than 250kWh, the NHHDC will not amend the original change of Supplier reading for use in Settlements.

If a revised change of Supplier reading is entered into Settlement, the NHHDC will calculate a new Meter Advance from the new change of Supplier reading and the current Meter register reading, and from this calculate an EAC from the date of the revised change of Supplier reading in accordance with 3.3.11. The NHHDC will provide the EAC with corresponding Effective From Settlement Date to the NHHDA.

If a revised change of Supplier reading is entered into Settlements, the NHHDC will also provide the deemed change of Supplier Reading to the current Supplier and the Old Supplier's NHHDC, who shall determine an associated AA from the date of the last valid Meter register reading taken prior to the change of Supplier to the date of the revised change of Supplier reading in accordance with 3.3.11. The old NHHDC shall send this with corresponding Effective From Settlement Date and Effective to Settlement Date to the NHHDA who shall enter this into Settlements. The old NHHDC shall also provide the revised change of Supplier reading to the old Supplier.

After a meter reading value has been processed for Initial Settlement, Suppliers may agree with each other, following the resolution of a dispute, to process a new or different customer own reading or actual reading. The incoming NHHDC shall receive the reading to be used from its Associated Supplier and pass it to the outgoing NHHDC. The agreed reading shall be processed as occurring on the Supplier Start Date if it occurred or was agreed to have occurred not more than five WDs before or not more than five WDs after the Supplier Start Date.

If the agreed reading occurred or was agreed by the relevant Suppliers to have occurred more than five WDs before or more than five WDs after the Supplier Start Date, the agreed reading shall not be treated as occurring on the Supplier Start Date and a Deemed reading calculated from the agreed reading shall apply in respect of the Supplier Start Date.

c) Concurrent Change of Supplier and Measurement Class

Non-Half hourly to Half Hourly

Where a Concurrent change of Supplier and change of Measurement Class from NHH to HH occurs, the NHHMOA should provide the NHHDC with the final Meter register reading prior to the NHH Metering System being replaced with a HH Metering System or having its HH functionality enabled. If no valid actual Meter register reading is received by the NHHDC in the SSD-5 and SSD+5 window, the NHHDC shall calculate a deemed concurrent change of Supplier and change of Measurement Class reading.

Where it has been identified by the NHHDC that there has been a change of Measurement Class and the NHHDC has not received a valid actual Meter register reading by SSD+5, the NHHDC shall deem a reading for the date of

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the concurrent change of Supplier and change of Measurement Class using the last valid read taken[94] for the NHH Metering System and a Deemed Meter Advance calculated using the Last Valid EAC over the Deemed Meter Advance Period starting on the date of the last valid read and ending on the day before the date of the concurrent change of Supplier and change of Measurement Class.

The NHHDC shall provide the deemed concurrent change of Supplier and change of Measurement Class reading to its Supplier.

The NHHDC shall determine the AA from the last valid reading to the date of the concurrent change of Supplier and change of Measurement Class reading in accordance with 3.3.11 and shall provide this with corresponding Effective From Settlement Date and Effective To Settlement Date to the NHHDA.

Half Hourly to Non-Half Hourly

Where a change of Measurement Class from HH to NHH occurs, the MOA should provide the NHHDC with the initial Meter register reading taken following the NHH Metering System being installed or the HH Metering System having its HH functionality permanently disabled.

Where it has been identified by the NHHDC that there has been a change of Measurement Class, if the NHHDC does not receive an actual Meter register reading 10 Working Days after the concurrent change of Supplier and change of Measurement Class, the NHHDC shall request this reading from the NHHMOA, the Supplier and from the old HHDC if the same Metering System was used in the Half Hourly market and this is possible.

If an actual reading is not received, an initial Deemed Meter Reading shall be calculated provided that the first Meter reading is at least 10 Working Days after the NHHDC requested the Meter register reading and both Meter register readings must be within 12 months of the change of Supplier, when either one or two new actual Meter register readings are obtained either in line with the reading cycle for that Metering System or obtained as special readings. The initial Deemed Meter Reading shall be calculated either using the first actual Meter register reading obtained and Deemed Meter Advance calculated using an initial EAC or using the first two actual Meter register readings obtained and the Deemed Meter Advance calculated using the AA calculated using these Meter register readings over the Meter Advance Period starting on the date of the change of Supplier and ending on the day before the date that the first (in the case of only one Meter register reading being taken) or second (in the case of two Meter register readings being taken) actual Meter register reading was obtained.

d) Change of LDSO

Note that for the purposes of this section, it is assumed that the change of LDSO is concurrent with a change of NHHDC, meaning that information must be passed between the old and new NHHDCs. Where there is no concurrent change of

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NHHDC, the NHHDC is required to obtain or deem a change of LDSO reading in the timescales below, pass the reading to the Supplier and pass subsequently calculated EACs / AAs to the appropriate NHHDA(s) in the same way as detailed for the old and new NHHDC below.

On a change of LDSO, if no final valid actual Meter register reading for the old MSID is obtained by the old NHHDC for the date of the change of LDSO then the old NHHDC is required to calculate a Deemed Meter Reading for the date of the change of LDSO. The old NHHDC should calculate a final Deemed Meter Reading for the old MSID using the last valid read taken[94] (providing one is available) and a Deemed Meter Advance calculated using the Last Valid EAC over the Deemed Meter Advance Period starting from the date of the last valid read and ending on the day before the date of the change of LDSO.

The old NHHDC shall provide the final Meter reading to the old LDSO and new NHHDC and the new NHHDC shall use this reading as the initial Meter reading for the new MSID. The new NHHDC shall also provide the reading to the new LDSO. This Deemed Meter Reading will be used as the final / initial Meter reading for old / new MSID.

If the New NHHDC has not received the Meter reading from the old NHHDC by 5 WD after the change of LDSO the new NHHDC will request this information from the old NHHDC and from the Supplier.

If no Meter reading is received, an initial Deemed Meter Reading shall be calculated when either one or two new actual Meter register readings are obtained either in line with the reading cycle for that Metering System or obtained as special readings, provided that the first Meter register reading is at least 10 Working Days after the NHHDC requested the Meter reading and both readings are within 12 months of the change of LDSO. The initial Deemed Meter Reading shall be calculated either using the first actual Meter register reading obtained and Deemed Meter Advance calculated using an initial (class average) EAC or using the first two actual Meter register readings obtained and the Deemed Meter Advance calculated using the AA calculated using these Meter register readings over the Deemed Meter Advance Period starting on the date of the change of LDSO and ending on the day before the date that the first (in the case of only one Meter register reading being taken) or second (in the case of two Meter register readings being taken) actual Meter register reading was obtained.

Once the change of LDSO reading has been deemed, the new NHHDC shall provide this reading to the new LDSO and the old NHHDC. The old NHHDC shall provide the reading to the old LDSO.

The new NHHDC shall determine the EAC from the date of the change of LDSO reading in accordance with 3.3.11 and shall provide this with corresponding Effective From Settlement Date to the new NHHDA.

The old NHHDC shall determine the AA from the date of the last Valid Meter register reading to the date of the change of LDSO reading in accordance with 3.3.11 and shall provide this with corresponding Effective From Settlement Date and Effective To Settlement date to the old NHHDA.

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e) At RF to ensure that crystallised data is not changed post the RF.

When a Meter has been read and the RF for the date of the previous Meter register reading has taken place, a Meter reading shall be deemed for the earliest practical Settlement Day for which the RF has not yet taken place over the Deemed Meter Advance Period starting from the date of the last crystallised valid actual Meter reading and ending on the earliest practical Settlement Day for which the RF has not yet taken place. The Deemed Meter Reading should be calculated using the last crystallised valid actual read taken and a Deemed Meter Advance calculated using the last EAC (i.e. the EAC used in the RF).

The NHHDC will then calculate a Meter Advance Period for the period after the Deemed Meter Reading. From this the NHHDC will calculate an associated AA and EAC for the period after the Deemed Meter Reading in accordance with 3.3.11 which will replace any previous EAC / AA values held by the NHHDC.

If the new EAC value is negative (which should only occur if the previous EAC was negative), calculate a replacement EAC by multiplying the GSP Group Profile Class Default EAC and the Average Fraction of Yearly Consumption.

Where it is possible to calculate an EAC that is more representative of the likely rate of generation or demand for the Metering System than the replacement EAC, the more representative EAC may be used as an alternative to the replacement EAC. In such circumstances, the NHHDC must document how the alternative replacement EAC was calculated as these values will be subject to audit.

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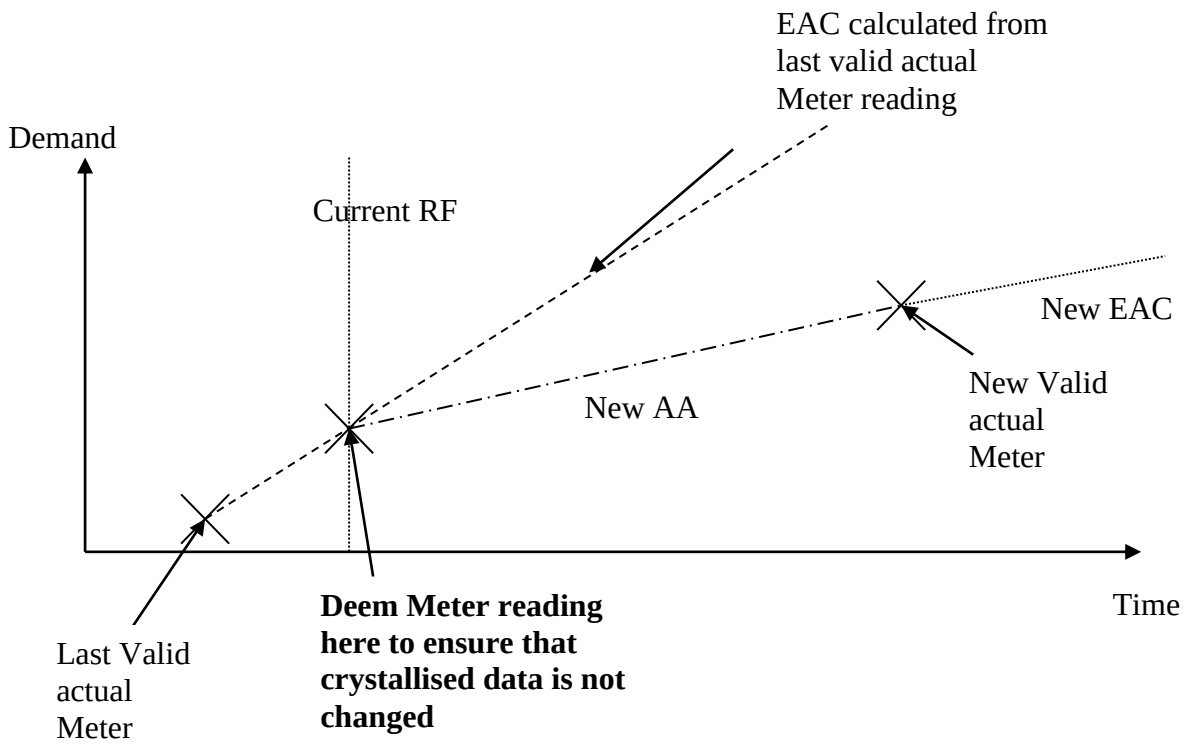
This process is shown in the diagram below:



f) Reconfiguration or Replacement of a Metering System

When a Metering System is reconfigured or replaced, a final Meter register reading for the old Metering System and an initial Meter register reading for the new Metering System (or corresponding readings prior to and post the Metering System being reconfigured) should be taken by the MOA when on site and these should be provided to the NHHDC.

Where the NHHDC has been informed that the Metering System has been reconfigured or replaced, but no valid actual readings have been provided to the NHHDC within 10 Working Days of the Metering System being reconfigured or replaced and the NHHDC has not been informed that the readings are unavailable (i.e. the Meter is no longer in place or able to display a Meter register reading or the Meter is faulty and any reading displayed is known to be incorrect), and the NHHDC requires an initial / final Meter reading, the NHHDC shall request the reading from the MOA and also from the Supplier.

Where a valid actual reading is not received 10 Working Days after being requested, or the NHHDC has been informed by the MOA that the reading is unavailable, the NHHDC may deem the final Meter reading for the date of the reconfiguration or replacement of the old Metering System using the last valid read taken[94] for the old Metering System and a Deemed Meter Advance calculated using the Last Valid EAC over the Deemed Meter Advance Period starting on the date of the last valid read and ending on the day before the date of the reconfiguration or replacement of the Metering System.

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Where applicable, this reading should be used as the corresponding initial reading for the date of the reconfiguration. If the final Deemed Meter Reading cannot be used as the initial reading (i.e. where the Metering System has been replaced or the Metering System has been reconfigured and the reading after the reconfiguration is unlikely to be the same as the reading before the reconfiguration), an initial Deemed Meter Reading may be calculated when either one or two new actual Meter register readings are obtained either in line with the reading cycle for that Metering System or obtained as special readings, provided that the first Meter reading is at least 10 Working Days after the NHHDC requested the actual Meter register reading from the Supplier and MOA and by 10 Working Days before the RF for the relevant Settlement Date. The initial Deemed Meter Reading shall be calculated either using the first actual Meter register reading obtained and Deemed Meter Advance calculated using an initial EAC or using the first two actual Meter register readings obtained and the Deemed Meter Advance calculated using the AA calculated using these Meter register readings over the Deemed Meter Advance Period starting on the date of the replacement or reconfiguration of the Metering System and ending on the day before the date of that the first (in the case of only one Meter register reading being taken) or second (in the case of two Meter register readings being taken) actual read was obtained.

The NHHDC shall determine the AA for the old Metering System (or Metering System prior to the reconfiguration) from the date of the last valid reading to the date of the Deemed Meter Reading in accordance with 3.3.11 and the EAC for the new Metering System (or Metering System after the reconfiguration) in accordance with 3.3.11 and shall provide these with corresponding Effective From Settlement Date and Effective To Settlement Date and to the NHHDA.

g) <u>On rectification of a Metering System fault</u>

Where a Metering System has become faulty, this may mean that the Metered Data recorded by that Metering System is erroneous, particularly meaning that a valid actual final Meter register reading will not be available for that Metering System. In many cases, a Metering System fault will require the Metering System to be replaced, in which case section 4.4.2(f) should be followed before and if Meter readings are deemed. If the Metering System can be repaired, the MOA should provide the NHHDC with an initial Meter register reading once the Metering System is repaired.

When the NHHDC is informed that the fault has been rectified, the NHHDC may deem the final Meter reading for the Metering System for the day that the fault was rectified using the last valid read taken[94] for the old Metering System and a Deemed Meter Advance calculated using the Last Valid EAC over the Deemed Meter Advance Period starting on the date of the last valid read and ending on the day before the date of the rectification of the fault.

Where the NHHDC has been informed that the fault has been rectified but no actual reading has been provided to the NHHDC within 5 WD of the fault being rectified, the NHHDC should request the reading from the MOA and Supplier.

Where an actual reading is not received, an initial Deemed Meter Reading may be calculated when either one or two Meter register reading are obtained, provided that

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the first Meter reading is at least 10 Working Days after the NHHDC requested the Meter register reading and both Meter register readings are taken by 10 Working Days before the RF for the relevant Settlement Date. The initial Deemed Meter Reading shall be calculated either using the first actual Meter register reading obtained and Deemed Meter Advance calculated using an initial EAC or using the first two actual Meter register readings obtained and the Deemed Meter Advance calculated using the AA calculated using these Meter register readings over the Deemed Meter Advance Period starting on the date of the rectification of the fault and ending on the day before the date that the first (in the case of only one Meter register reading being taken) or second (in the case of two Meter register readings being taken) actual Meter register reading was obtained.

It should be noted that the initial and final Meter readings may not be the same.

The NHHDC shall determine the AA for the Metering System prior to the rectification of the fault from the date of the last valid reading to the date of the Deemed Meter Reading in accordance with 3.3.11 and the EAC for the Metering System after the rectification of the fault in accordance with 3.3.11 and shall provide the these with corresponding Effective From Settlement Date and Effective To Settlement Date and to the NHHDA.

h) Change of Measurement Class (not concurrent with Change of Supplier)

Non-Half hourly to Half Hourly

Where a change of Measurement Class from NHH to HH occurs, the MOA should provide the NHHDC with the final Meter register reading prior to a NHH Metering System being replaced with a HH Metering System or having its HH functionality enabled.

When the NHHDC has been informed that change of Measurement Class has occurred, but no valid actual reading has been provided to the NHHDC within 15 Working Days of the change of Measurement Class or the NHHDC has not been informed that the reading is unavailable and the NHHDC requires a final Meter reading, the NHHDC should request the reading from the MOA and Supplier.

Where a valid actual reading is not received 10 Working Days after being requested, or the NHHDC has been informed by the MOA that the reading is unavailable the NHHDC may deem the final Meter reading for the Metering System for the date of the change of Measurement Class using the last valid read taken[94] for the NHH Meter and a Deemed Meter Advance calculated using the Last Valid EAC over the Deemed Meter Advance Period starting on the date of the last valid read and ending on the day before the date of the change of Measurement Class.

The NHHDC shall determine the AA from the date of the last valid Meter register reading to the date of the Deemed Meter Reading in accordance with 3.3.11 and shall provide this with corresponding Effective From Settlement Date and Effective To Settlement Date to the NHHDA.

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Half Hourly to Non-Half Hourly

Where a change of Measurement Class from HH to NHH occurs, the MOA should provide the NHHDC with the initial Meter register reading taken following the NHH Metering System being installed or the HH Metering System having its HH functionality permanently disabled. If the NHHDC does not receive a valid actual reading within 10 Working Days of the change of Measurement Class and an initial Meter reading is required, the NHHDC should request the readings from the MOA, the Supplier and from the old HHDC if the same Metering System was used in the Half Hourly market and this is possible.

When the NHHDC has been informed that change of Measurement Class has occurred, but no actual reading has been provided to the NHHDC, an initial Deemed Meter Reading may be calculated when a new either one or two actual Meter register readings are obtained, either in line with the reading cycle for that Metering System or obtained as special readings provided that the first Meter register reading is at least 10 Working Days after the NHHDC requested the Meter register reading and both Meter register readings are taken by 10 Working Days before the RF for the relevant Settlement Date. The initial Deemed Meter Reading shall be calculated either using the first actual Meter register reading obtained and Deemed Meter Advance calculated using an initial (class average) EAC or using the first two actual Meter register readings obtained and the Deemed Meter Advance calculated using the AA calculated using these Meter register readings over the Deemed Meter Advance Period starting on the date of the change of Measurement Class and ending on the day before the date that the first (in the case of only one Meter register reading being taken) or second (in the case of two Meter register readings being taken) actual Meter register reading was obtained.

i) Energisation on a new connection

Where a Metering System is energised on a new connection, the MOA should provide the NHHDC with the initial Meter register reading taken following the NHH Metering System being installed. Where the NHHDC has been informed that a Metering System has been energised but has not received an actual initial Meter register reading within 10 Working Days of the notification of energisation of the Metering System and an initial Meter reading is required, the NHHDC should request the initial Meter register reading from the MOA and Supplier.

If no actual reading is received, an initial Deemed Meter Reading may be calculated when either one or two new actual Meter register reading are obtained either in line with the reading cycle for that Metering system or obtained as special readings, provided that the first Meter register reading is at least 10 Working Days after the NHHDC requested the Meter register reading and both Meter register readings are taken by 10 Working Days before the RF for the relevant Settlement Date. The initial Deemed Meter Reading shall be calculated either using the first actual Meter register reading obtained and Deemed Meter Advance calculated using an initial

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EAC or using the first two actual Meter register readings obtained and the Deemed Meter Advance calculated using the AA calculated using these Meter register readings over the Deemed Meter Advance Period starting on the date of the energisation and ending on the day before the date that the first (in the case of only one Meter register reading being taken) or second (in the case of two Meter register readings being taken) actual Meter register reading was obtained.

Where the NHHDC discovers that a Metering System has been energised and has not been informed of the energisation by the MOA or Supplier, the MOA shall investigate the energisation status of the Metering System with the Supplier.

j) De-energisation

When a Metering System is de-energised, the MOA should provide the NHHDC with a final Meter register reading taken when the Metering System was de-energised. Where the NHHDC has been informed that a Metering System has been de-energised but the NHHDC has not received a valid actual de-energisation reading within 10 Working Days of being informed of the de-energisation and a final reading is required, the NHHDC should request this reading from the MOA and Supplier.

Where a valid actual reading is not received 10 Working Days after being requested, or the NHHDC has been informed by the MOA that the reading is unavailable (i.e. the Meter is unable to display a Meter register reading or the Meter register reading displayed in known to be incorrect), the NHHDC may deem the final Meter reading for the Metering System for the date that the Metering System was de-energised using the last valid read taken[94] and a Deemed Meter Advance calculated using the Last Valid EAC over the Deemed Meter Advance Period starting on the date of the last valid read and ending on the day before the date of the de-energisation.

The NHHDC shall determine the AA from the date of the last valid Meter register reading to the date of the Deemed Meter reading in accordance with 3.3.11 and shall provide this with corresponding Effective From Settlement Date and Effective To Settlement Date to the NHHDA.

Where the NHHDC discovers that a Metering System has been de-energised and has not been informed of the de-energisation by the MOA or Supplier, the NHHDC shall investigate the energisation status of the Metering System with the Supplier.

If the NHHDC has been notified by the Supplier or the MOA that a Metering System has been de-energised, is unaware of the date that the Metering System was de-energised but has other information that indicates a likely date of the de-energisation then this date should be recorded as the date of the de-energisation. Where the NHHDC has no information other than that the notification by the Supplier that the Metering System has been de-energised, the NHHDC should calculate the Deemed Meter Reading to the date that the NHHDC was notified that the Metering System had been de-energised.

If a Deemed Meter Reading was calculated for the de-energisation reading, and then an actual Meter register reading is taken when the Metering System is subsequently energised, if there is a discrepancy between the two readings, the de-energisation

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reading should be amended and the energisation reading substituted for the de-energisation reading.

k) Energisation (not on a new connection)

If a Metering System is energised following a period of de-energisation, the MOA should provide the NHHDC with an initial Meter register reading taken when the Metering System was energised. Where the NHHDC has been informed that a Metering System has been energised but has not received an actual initial Meter register reading within 10 Working Days of the notification of the energisation of the Metering System and an initial Meter reading is required, the NHHDC should request the initial Meter register reading from the MOA and Supplier.

Where an actual reading is not received 10 Working Days after being requested, the NHHDC should substitute the de-energisation reading (whether this is an actual Meter register reading or a Deemed Meter Reading) as the energisation reading on the date of the energisation. If there is no de-energisation reading recorded, an initial Deemed Meter Reading may be calculated when either one or two new actual Meter register readings are obtained either in line with the reading cycle for that Metering system or obtained as special readings, provided that the first Meter register reading is at least 10 Working Days after the NHHDC requested the Meter register reading and both Meter register readings are taken by 10 Working Days before the RF for the relevant Settlement Date. The initial Deemed Meter Reading shall be calculated either using the first actual Meter register reading obtained and Deemed Meter Advance calculated using an initial EAC or using the first two actual Meter register readings obtained and the Deemed Meter Advance calculated using the AA calculated using these Meter register readings over the Deemed Meter Advance Period starting on the date of the energisation and ending on the day before the date that the first (in the case of only one Meter register reading being taken) or second (in the case of two Meter register readings being taken) actual Meter register reading was obtained.

If the RF has not been carried out for the date that the Metering System was de-energised, this reading should also be recorded as the de-energisation reading.

Where the NHHDC discovers that a Metering System has been energised and has not been informed of the energisation by the MOA or Supplier, the MOA shall investigate the energisation status of Metering System with the Supplier.

l) Removal / Disconnection of a Meter

When a Metering System is removed or disconnected, the MOA should take a final Meter register reading and provide this to the NHHDC. If the NHHDC has been informed that a Metering System has been removed / disconnected but has not received a valid actual Meter register reading within 10 Working Days of the removal / disconnection of the Metering System or has not been informed that the reading is unavailable (i.e. the Meter is unable to display a Meter register reading or the Meter register reading displayed in known to be incorrect), and a final Meter

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reading is required, the NHHDC should request the final reading from the MOA, LDSO and Supplier.

Where a valid actual reading is not received 10 Working Days after being requested, or the NHHDC has been informed by the MOA that the reading is unavailable, if the Metering System was de-energised prior to it being removed or disconnected and the NHHDC has a de-energisation reading (whether actual or deemed), the NHHDC should use this reading as the disconnection / removal reading. If a de-energisation reading is not available, the NHHDC may deem the final Meter reading for the Metering System for the day that the Metering System was removed or disconnected using the last valid read taken[94] and a Deemed Meter Advance calculated using the Last Valid EAC over the Deemed Meter Advance Period starting on the date of the last valid read and ending on the day before the date of the removal / disconnection of the Meter.

The NHHDC shall determine the AA from the date of the last valid Meter register reading to the date of the Deemed Meter Reading in accordance with 3.3.11 and shall provide this with corresponding Effective From Settlement Date and Effective To Settlement Date to the NHHDA.

If the NHHDC had been notified by the Supplier, LDSO or MOA that a Metering System has been removed / disconnected, is unaware of the date that the Metering System was removed / disconnected but has other information that indicates a likely date of the removal / disconnection then this date should be recorded as the date of the removal / disconnection. Where the NHHDC has no information suggesting an actual or likely date of the removal / disconnection, the NHHDC should calculate the Deemed Meter Reading to the date that the NHHDC discovered that that the Metering System was removed / disconnected.

m) Identification of Site as demolished

Where the NHHDC identifies that a site has been demolished and the NHHDC has not been notified that the Metering System has been de-energised, disconnected or removed, and a final Meter reading is required, the NHHDC should request final a Meter register reading from the MOA, LDSO and Supplier. The final read supplied may be a de-energisation, disconnection or removal of Metering System reading.

If a valid actual reading is not received 10 Working Days after being requested and the NHHDC has a de-energisation or disconnection reading (whether actual or deemed), the NHHDC should use this reading as the final reading. If a de-energisation or disconnection reading is not available the NHHDC may deem the final Meter reading for the day that the Site was demolished using the last valid read taken[94] and a Deemed Meter Advance calculated using the Last Valid EAC over the Deemed Meter Advance Period starting on the date of the last valid read and ending on the day before the date that the Site was demolished.

The NHHDC shall determine AA from the date of the last valid Meter register reading to the date of the Deemed Meter Reading in accordance with 3.3.11 and shall provide this with corresponding Effective From Settlement Date and Effective To Settlement Date to the NHHDA.

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If the NHHDC is unaware of the date that the site was demolished and has no other data which indicates a likely date that the site was demolished, the NHHDC should calculate the Deemed Meter Reading to the date that the NHHDC discovered that the site had been demolished.

If the NHHDC is unaware of the date that the site was demolished but has other information that indicates a likely date that the site was demolished then this date should be recorded as the date of the demolition of the site. Where the NHHDC has no information suggesting an actual or likely date of the demolition of the site, the NHHDC should calculate the Deemed Meter Reading to the date that the NHHDC discovered that that the Metering System had been demolished.

n) Change of Profile Class

It may be that system constraints in the NHHDC system require a Meter reading for a change of Profile Class. In this case, the NHHDC should attempt to obtain a Meter register reading. Where a Meter register reading cannot be obtained, the NHHDC may deem a change of Profile Class reading for the day of the change of Profile Class using the last valid actual read taken and a Deemed Meter Advance calculated using the Last Valid EAC.

o) Archiving of Profile Co-efficients

Where the last actual Meter register reading is more than 15 months old and where the Daily Profile Coefficients subsequent to the Meter register reading are about to be archived, a deemed reading may be calculated for a Deemed Meter Advance Period determined by the NHHDC with a start and end date between the date that the Profile Co-efficients are to be archived and the date of the latest RF.

p) Compensating Crystallised Errors

Where an erroneous Meter register reading, EAC or AA has passed through the RF, the Metered Data which has crystallised cannot be altered without the support of an upheld Trading Dispute. It may be desirable to compensate for the error that has crystallised in the fluid period which has not passed though the RF. The process of Gross Volume Correction should be used to compensate for this error. This process is described fully in Appendix 4.14.

q) Long Term Vacant Sites

Commencement of treatment of site as Long Term Vacant:

Where a Supplier has sent the NHHDC a D0052 “Affirmation of Metering System Settlement Details” containing a zero EAC, the NHHDC must deem a reading for the date of the change of EAC if they do not have a valid Meter reading available for this date. This should be calculated using the following variables:

- Meter reading: the last valid Meter reading taken (or if not available, deemed).

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- Applicable EAC/AA for calculation of Deemed Meter Advance: the last valid EAC.

- Deemed Meter Advance Period: starting on the date of the last valid Meter reading and ending on the day before the date of the change in value of the EAC.

The NHHDC shall determine the AA for the Metering System prior to the change in EAC value in accordance with section 3.3.11 and should provide this AA and the zero EAC with corresponding Effective From Settlement Dates and Effective To Settlement Date (of the AA) to the NHHDA and Supplier.

If a Meter reading taken at the end of the Long Term Vacant Period indicates that the initial deemed reading was incorrect and is withdrawn[69] in accordance with section 3.3.8.4, a new initial reading can be entered using the Meter reading taken at the end of the Long Term Vacant Period as the reading for the start of the Long Term Vacant Period.

The NHHDC shall determine the AA for the Metering System prior to the start of the Long Term Vacant Period in accordance with section 3.3.11 and should provide this AA and the AA for the Long Term Vacant period with corresponding Effective From Settlement Dates and Effective To Settlement Dates to the NHHDA and Supplier.

<u>End of treatment of site as Long Term Vacant:</u>

Where a Supplier has sent the NHHDC a D0052 containing a non-zero EAC for a Metering System that previously had a zero EAC associated with it, the NHHDC must deem a reading for the date of the change of EAC if they do not have a Meter reading available for this date. This should be calculated using the following variables:

- Meter reading: the Meter reading taken or deemed when the zero EAC was entered into Settlement

- Applicable EAC/AA for calculation of Deemed Meter Advance: the last Valid EAC (i.e. zero EAC)

- Deemed Meter Advance Period: starting on the day when the zero EAC was entered into Settlement and ending on the day before the date of the change in value of the EAC from zero to non-zero.

The NHHDC shall determine the AA for the Metering System prior to the change in EAC value from zero to non-zero in accordance with section 3.3.11 and should provide this AA and the new EAC provided by the Supplier with corresponding Effective From Settlement Dates and Effective To Settlement Date (of the AA) to the NHHDA. The D0019 containing this information should also be sent to the Supplier.

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4.5.3 Process for calculating a Deemed Meter Advance

In general, the meter advance for a Settlement Register will correspond to the meter advance for the equivalent physical meter register defined in the Metering Equipment Technical Details. Where there is no direct correspondence between a Settlement Register and a physical meter register, the NHHDC shall calculate the relevant meter advance by aggregation or differencing of the physical registers of the SVA Metering System defined by the Metering Equipment Technical Details.

The processing for calculating a Deemed Meter Advance using the formulae set out in Annex S-2 of the Code for each Settlement Register is as follows:

a) Identify the Deemed Meter Advance Period and the associated EAC / AA values from which the Deemed Meter Advance shall be calculated in accordance with section 4.5.2.

b) Retrieve the SSC, Profile Class and GSP Group effective for the SVA Metering System at the start of the Deemed Meter Advance Period, together with any changes to Profile Class or GSP Group that took effect during the Deemed Meter Advance Period.

c) For each Settlement Day in the Deemed Meter Advance Period, retrieve the corresponding Profile Coefficients. The Profile Coefficients retrieved depend on:

   (i) The Measurement Requirement for the Settlement Register during the Meter Advance Period, where Measurement Requirement is a valid combination of SSC Id and TPR Id.

   (ii) The GSP Group Id effective for the SVA Metering System on the Settlement Day in question.

   (iii) The Profile Class Id effective for the SVA Metering System on the Settlement Day in question.

The main exception conditions, which may occur when calculating Deemed Meter Advances, are as follows[95:]

a) If Daily Profile Coefficients are not found for the combination of GSP Group, Profile Class, SSC and TPR effective on any Settlement Day within the Meter Advance Period, the Deemed Meter Advance is not processed and an exception is reported by the NHHDC system; or

b) If the input data is incomplete or invalid.

If either of these exceptions occurs, the NHHDC should investigate the cause of the exception and attempt to rectify it with the Supplier.

[95] Refer to section 4.9.

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4.6 Manual Adjustment of Meter Reading(s).

The NHHDC may correct Meter register readings considered to be in error, where the NHHDC is able to establish beyond reasonable doubt:

1. from the Meter register reading history that the Meter register readings were incorrectly allocated to the Meter register identifiers by the customer or Meter reader. Where this circumstance exists, the NHHDC shall change the allocation of the Meter register readings to the registers but shall not otherwise change the Meter register reading.

2. Where the NHHDC decides that the meter reading may be altered, the NHHDC shall manually adjust the meter reading and the adjusted meter reading will be reported to the Supplier and in the case of a CoS meter reading to the outgoing NHHDC.

3. from the number of digits provided and / or the Meter reading history that the "one tenth kWh" register digit has been incorrectly added to the end of the Meter register reading by the customer or Meter reader. Where this circumstance exists, the NHHDC shall remove this "one tenth kWh" digit from the Meter register reading but shall not otherwise change the Meter register reading.

4. from the Meter reading history that two adjacent register digits have been erroneously transposed by the customer or the Meter reader. Where this circumstance exists, the NHHDC shall re-order these two register digits but shall not otherwise change the Meter register reading.

5. from the Meter reading history that one or more of the dials on an analogue Meter register has been rounded up rather than down, or vice versa. Where this circumstance exists, the NHHDC shall reverse the data from the dial either up or down but shall not otherwise change the Meter register reading.

The Code has no requirement to identify in the data flows where Meter register readings have been adjusted and the NHHDC and Supplier shall mutually agree the content of this communication where it is a Supplier Hub activity. However where the Meter register reading is a CoS reading, the new NHHDC will send this adjusted Meter register reading to the old Supplier Hub (via the old NHHDC) but there is no requirement for the NHHDCs to mutually agree the content of this communication.

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4.8 Historical Data Requirements.

This section may be modified based on any new/relaxed requirements for smart metering.

References to the "incoming/new NHHDC" are to the NHHDC who is or becomes responsible for the relevant SVA Metering System on a CoS, whether or not that NHHDC was also responsible for it before the CoS; and references to the "outgoing/old NHHDC" are to the NHHDC who is or was responsble for the relevant SVA Metering System before the change of Supplier, whether or not that NHHDC remains responsible for it on and following the CoS.

The historical data requirements described below are the requirements for the old NHHDC during the following business events:

a) Change of NHHDC within a Supplier's Period of Registration (including bulk change of NHHDC).

The old NHHDC will send the meter reading and associated AA/EAC history to the new NHHDC and this will include the data[96] back to the meter reading at or, in the case where no meter reading was obtained at the event, immediately prior to any of these events:

1. Supplier registration
2. change of SSC (change of Profile Class)
3. 28 months
4. CoMC from HH to NHH
5. change of meter

If the new NHHDC identifies a discrepancy between the meter reading(s) and the associated AA/EAC history, the meter reading history will take precedence[97].

b) Change of NHHDC Coincident with Change of Supplier

The old NHHDC will send the last valid meter reading, which was dated prior to the SSD and the associated EAC to the new NHHDC.

In the event that the incoming NHHDC cannot obtain the data from the old NHHDC, having exhausted all reasonable efforts and kept an auditable record of such efforts, the incoming NHHDC may seek the information from the relevant Supplier instead. This does not relieve the old NHHDC of their obligations under PSL100 and BSCP504 regarding service levels.

[96] If the old NHHDC is unable to validate meter reading(s) during the Change of Non-Half Hourly Data Collector business event, the old NHHDC will identify that the meter reading(s) has not been validated in the appropriate data flow.

[97] The meter reading history will take precedence because this relates to reading data that has undergone validation and is less likely to be inaccurate than the AA/EAC data because this is calculated data.

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4.9 EAC/AA Calculation.

Use of EAC/AA System

The NHHDC will use the EAC/AA System or any other equivalent system or process so approved in accordance with BSCP537 to calculate the EAC/AA values.

The NHHDC shall ensure that the facility to resend EAC/AA for previous meter readings is used only where it is necessary to withdraw the intervening meter readings or EAC/AA.

Profile Class Tolerances will be provided to the NHHDC via[98] Market Domain Data. The NHHDC will use these tolerances, which are GSP Group specific, during the EAC/AA calculation.

The EAC/AA and Deemed meter advance calculation processes must be able to process meter advances of up to fifteen months. An advance period longer than fifteen months will cause an error report and processing will continue with the next SVA Metering System.

The NHHDC shall provide an exception and control report for each run of the EAC/AA and Deemed meter advance calculation processes. Such report shall include details of any SVA Metering System for which EAC/AA or Deemed meter advances have not been calculated including the reason therefor.

Excessively Large (Positive or Negative) AAs

When an AA is calculated[99], it will be checked by the EAC/AA System against the current tolerances for the Profile Class. If the tolerances are exceeded i.e. the AA is excessively large (positive or negative), a warning message will be produced but the AA (and the revised EAC) will be included in the EAC/AA output file. In addition the warning message will be added to the large AA exception log.

The NHHDC will:

1. investigate the reason(s) for the large AA. If the AA is invalid, the NHHDC will withdraw the AA
2. Report all occurrences of the warning messages to the Supplier together with the status of each exception following investigation
3. Withdraw an AA notified by the Supplier as invalid
4. Retain an audit trail of any AA withdrawn

[98] There are no dates associated with the tolerance values therefore there is no requirement for the NHHDC to retain a history.
[99] Revised EACs will only fall outside tolerances as the result of erroneously large AAs, so validation of EACs is superfluous.

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Three situations in which a large AA will be determined to be invalid are as follows:

1. A reading previously determined to be valid (e.g. B) is now determined to be invalid as a result of reviewing a subsequent reading (e.g. C). In this case:

   a) withdraw the intermediate reading[100] (i.e. B)

   b) calculate a new AA (and EAC) using the last valid reading which was obtained prior to the invalid reading (e.g. A)

   c) the revised AA will replace the previously invalid AA

2. a reading previously determined to be valid (e.g. B) is now determined to be invalid by means other than reviewing a subsequent reading e.g. the new AA/EAC tolerance check, or alternatively notification from the Supplier. In this case:

   a) withdraw the invalid reading (e.g. B)

   b) withdraw the associated AA and EAC

   c) the reading will not be replaced, unless it was a CoS Meter register reading

3. The Meter advance was calculated incorrectly even though there is nothing wrong with the reading (e.g. failing to recognise a Meter register rollover or incorrectly assuming a rollover from a negative advance). In this case:

   a) the Meter register reading remains valid

   b) re-calculate the Meter Advance

   c) re-calculate the AA/EAC

<u>For each run of EAC/AA and Deemed Meter advance calculation.</u>

<u>The NHHDC shall prepare an exception report specifying all negative values of meter advances</u>. The exception and control report shall include totals of the following:

- the number of SVA Metering Systems;
- the number of SVA Metering Systems for which no Estimated Annual Consumption/Annualised Advance or Deemed meter advance has been calculated;
- the number of SVA Metering Systems for which an Estimated Annual; and
- Consumption/Annualised Advance or a Deemed meter advance has been calculated.

[100] The NHHDC will retain an audit trail of any Meter register reading which is withdrawn.

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4.10 Correction of Incorrect Meter Register Mapping

When it has been identified that the NHHDC has incorrect information on its systems that incorrectly apply Meter readings to registers, the NHHDC is required to correct this error subject to the approval of the Supplier and providing that RF has not passed. The NHHDC is required to obtain a suitable Meter reading for the purposes of correcting incorrect Meter register mapping in the following order of preference:

1. If the last Meter reading was within 1 month of the intended correction, use this reading; or

2. If the next Meter reading is scheduled with the next 2 months, use this reading; or

3. Schedule a special Meter reading within the next 2 months.

Where it is not possible to obtain a suitable Meter reading as described above, the NHHDC is required to inform the Supplier and await instructions.

When the NHHDC has obtained a suitable Meter reading, the NHHDC is required to:

a) Use those readings as final readings for the incorrect mapping subject to the validation rules;

b) Correct the register mapping on the NHHDC system; and

c) Use the Meter readings as initial readings for the newly corrected register mapping.

4.11 Prepayment Meters

Pre-payment Meters and associated infrastructure that can provide Meter register readings without a site visit shall be treated as remotely read Meters.

1. <u>Processing Remotely Collected Meter Register Readings for Settlement</u>

   It is recognised that the Supplier (or infrastructure providers) may receive readings from remotely read Meters on a frequent basis.

   The NHHDC will receive the Meter register reading(s) from the organisation operating the prepayment system or via the Supplier. The Meter register reading(s) will be sent to the NHHDC in accordance with a Meter register reading cycle but this cycle should not exceed a three month period. For the avoidance of doubt if the Supplier or infrastructure provider has not collected a remote reading then no reading needs to be provided to the NHHDC.

2. <u>Processing a Remotely Collected Meter Register Reading for a Change of Supplier</u>

   In the event of a change of Supplier, the Supplier (or infrastructure provider) should ensure that any remote reading(s) received within SSD ±5 days

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should be provided to the NHHDC, and should be processed by the NHHDC subject to the validation rules.

4.12 Usage and Validation of 'Affirmation of Metering System Settlement Details' (D0052)

4.12.1 Metered Supplies

In populating the D0052 flow, the Supplier will:-

- Ensure that a 'Non-Half-Hourly Meter Technical Details' (D0150) or DYYY Meter Configuration flow has been received from the Meter Operator, before sending a D0052[101];

- Check that the Standard Settlement Configuration (SSC) on the D0150/DYYY matches the SSC requested on the 'Request for Installation or Change to a Metering System Functionality or the Removal of All Meters' (D0142) flow or DZZZ. If there is a mismatch between the SSC on D0150/DYYY and the D0142, the Supplier should resolve with the MOA, but pending resolution of the mismatch, should send a D0052 to match the D0150/DYYY;

- Ensure that where there has been a change to SSC Id, Profile Class (PC) Id or Measurement Class (MC) Id the effective date on the D0052 matches that on the D0150/DYYY;

- Send an 'Update Registration Details' (D0205) flow to SMRS at the same time as the D0052 is sent to the NHHDC, in order to avoid SMRS-NHHDC mismatches on the NHH Data Aggregation Exception Report (D0095).

In processing D0052 flows from Suppliers, the NHHDC will:-

- Check that the SSC on the D0052 (where there has been a change of SSC or the NHH Metering System is new) matches the SSC value on the D0150/DYYY ~~from the MOA~~ and notify the Supplier of any mismatch.

- Notify the Supplier if the D0052 indicates that a D0150/DYYY is expected, but no D0150/DYYY has been received or if the D0150/DYYY indicates that a D0052 is expected, but no D0052 has been received.

- Notify the Supplier if a D0052 has not been processed, either because its contents are identical to the data values already held by the NHHDC or because the NHHDC has been unable to derive the context in which the flow is being sent from the contents of the flow.

Note That:

[101] Where a D0052 is sent to notify the NHHDC of a change of Profile Class a D0150 will not be sent by the Meter Operator. In the case of Unmetered Supplies a D0150 will not be sent by the Meter Operator.

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- Where the NHHDC already holds a calculated EAC (i.e. associated with an AA) this should be used in preference to any EAC provided on the D0052, except where there has been a change of PC and/or SSC concurrent with the CoS/CoNHHDC, or where the site has been determined to be Long Term Vacant.

- Where the NHHDC only holds an initial EAC, then the value provided by the Supplier on the D0052 should replace it.

- A D0052 may not be considered invalid on the basis of an inconsistency in the Effective From Settlement Date of the SSC Id, PC Id, GSP Group Id or MC Id except where there has been a change to the associated data item. Where a D0052 is received and the SSC Id, PC Id, GSP Group Id or MC Id are identical to those already held by the NHHDC, but the Effective From Settlement Dates of one or more of these items are different to those already held by the NHHDC, the NHHDC will load the D0052, but may retain the original Effective From Settlement Dates in preference to those notified on the D0052. This is subject to the D0052 being otherwise valid. This ensures that where the Supplier has aligned Effective From Settlement Dates to the SSD, the NHHDC can do likewise or can retain its original dates.

4.12.2 Unmetered Supplies

In processing D0052 flows from UMSO for Unmetered Supplies, the NHHDC will:

- Check that the Metering System ID on the flow is registered as an Unmetered Supply in the NHHDC system;

- Check that the short code of the UMSO's associated LDSO matches the first two digits of the Metering System ID;

- Check that the Measurement Class ID on the flow is 'B' – Non-Half Hourly Unmetered;

- Check that the Standard Settlement Configuration (SSC) on the flow is an Unmetered Supply SSC;

- Check that the PC on the flow corresponds correctly to the SSC;

- Check that the UMS SSC is appropriate to the relevant GSP Group; and

- Notify the UMSO and the Supplier via the D0310, if the D0052 is invalid.

Note that:

- A D0052 may not be considered invalid on the basis of an inconsistency in the Effective From Settlement Date of the SSC Id, PC Id, GSP Group Id or MC Id except where there has been a change to the associated data item. Where a D0052 is received and the SSC Id, PC Id, GSP Group Id or MC Id are identical to those already held by the NHHDC, but the Effective From Settlement Dates of one or more of these items are different to those already

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held by the NHHDC, the NHHDC will load the D0052, but may retain the original Effective From Settlement Dates in preference to those notified on the D0052. This is subject to the D0052 being otherwise valid. This ensures that where the UMSO has aligned Effective From Settlement Dates to the SSD, the NHHDC can do likewise or can retain its original Effective From Settlement Dates.

- A D0052 may not be considered invalid on the basis of the Effective From Settlement Date of the Initial EAC except where there is a change of SSC.

- When receiving a D0052 with a backdated Effective From Settlement Date, all previously-supplied D0052 data effective after that date should be overwritten.

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4.14 Gross Volume Correction

4.14.1 Introduction

Once a Settlement Date has been subject to the Final Reconciliation Volume Allocation Run (RF), data for that day shall not be amended unless supported by an upheld Trading Dispute. If an error in demand exists on a Settlement Date for which RF has taken place, this error can be compensated in Settlements Days for which RF is still to take place. The process of compensating this error is Gross Volume Correction (GVC). This process results in the correct total volume of energy being allocated to the Supplier; however this energy will be allocated to different Settlement Periods.

Diagrams have been included below which show how the demand recorded by a Meter changes over time (the time axis showing time going forwards and the demand axis showing increasing demand), taking into account Meter readings (whether valid, erroneous or compensatory). It would be expected that, if all readings were valid, that the Meter readings would steadily increase over time.

4.14.2 Definitions

For the purposes of this appendix, the following definitions apply:

Crystallised Period	Periods of Settlement Dates for which RF has taken place and data cannot be amended without the support of an upheld Trading Dispute.
Error freezing reading	This is a reading deemed in the current RF Window to prevent error that has crystallised being amended. It is calculated using the last valid, erroneous or compensatory Meter reading(s) obtained before and / or after RF and the associated erroneous EAC / AA that was in place at RF. Error freezing readings can only be deemed in the current RF Window. They should not be created at (or close to) the latest Post Final Settlement Run (PFSR), even in the case where the erroneous EAC or AA is subject to an authorised Trading Dispute.
Fluid Period	Periods of Settlement Dates for which RF has not taken place
Realistic reading	Where a Meter reading is required for a particular Settlement Day to carry out Gross Volume Correction and an actual Meter reading is not available, a realistic reading can be deemed for that Settlement Day using a valid Meter register reading (occurring prior to or after the realistic reading date) and a realistic EAC (i.e. a previous valid EAC or if one is not available an initial (class average) EAC).

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RF Window	This is the window of time between 5WD and 20WDs prior to the RF being carried out for a particular Settlement Day (i.e. a window in the period before that Settlement Day has passed through RF). A reading for RF should be deemed in this window since corrective action takes a finite time to be reflected in Settlements as it needs to be completed by the NHHDC, sent to the Non-Half Hourly Data Aggregator (NHHDA), processed by the NHHDA, sent to the Supplier Volume Allocation Agent (SVAA) and processed by the SVAA.

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4.14.3 Use of Gross Volume Correction

Where an erroneous Meter Advance is identified, the associated AA, EAC and (where applicable) the associated reading may be withdrawn if none of the Settlement Dates in the Meter Advance Period have been subject to a last Volume Allocation Run (i.e. the RF run or, where the AA/EAC is subject to a Trading Dispute, the Post Final Settlement Run (PFSR)).

Where all Settlement Dates within a Meter Advance Period have been subject to a RF run (or, as applicable, PFSR), the associated AA, EAC and reading may not be withdrawn.

If the erroneous Meter Advance has partially crystallised (i.e. a RF run has taken place for some, but not all Settlement Dates within the Meter Advance Period), GVC can be applied to correct the error without amending the energy values which have already been subject to a RF run.

Other than being used to compensate for a partially crystallised error in a single Meter Advance Period, as described above, GVC should only be used where an energy error for a given Metering System is affecting the NHHDC's ability to process subsequent Meter Readings. For example, GVC can be used where the forward EAC is out of line with the expected consumption for the Metering System to the extent that subsequent valid readings for the Metering System are failing validation (or should be likely to fail validation).

GVC cannot be used to compensate for errors across two Meters or two Standard Settlement Configurations (SSCs). In order to correct errors across different Meters or SSCs, the Final/Initial readings need to be withdrawn and replaced (and potentially the change of Meter/SSC needs to be backed out). GVC cannot be applied for any disconnected Metering System or any Metering System that has undergone a change of Measurement Class (NHH to HH), because the principle of applying GVC where there is an ongoing Settlement impact does not apply.

The application of GVC in relation to Change of Supplier readings is described in Section 4.14.5.

Where there is insufficient reading history to apply GVC, or where compensation will introduce further error, the NHHDC may, but only as an action of last resort, take such steps as are necessary to address the ongoing validation problem, without ensuring that the gross volume of energy settled is correct. This will have the effect of "writing off" historic error, but ensuring that future error is minimised (e.g. the application of "dummy meter exchanges"[102]. Where such action is taken by the NHHDC it should be subject to a robust and auditable process.

The use of GVC does not remove the requirement to identify and resolve Settlement errors prior to the RF run, but is intended as a reasonable provision for errors that could not have reasonably been detected when they were originally created.

[102] A "dummy meter exchange" involves the use of Initial and Final Meter readings to effectively re-start consumption histories even though no actual, physical change of Meter has taken place.

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GVC is an optional requirement for the Supplier; however the NHHDC must be able to carry out GVC if required to by the Supplier. GVC shall be carried out by the NHHDC when this has been agreed with the Supplier, and when the use of GVC meets the criteria described above. Where the NHHDC receives a request from the Supplier to apply GVC, which does not meet the criteria described above, it should be referred back to the Supplier with supporting rationale for why the NHHDC does not consider that GVC is appropriate. The NHHDC may also initiate the use of GVC, although only with the agreement of the relevant Supplier or Suppliers. Such approval can be obtained on a per-instance or delegated authority basis, as agreed with the Supplier.

The NHHDC may identify that GVC should be carried out if the EAC is above BSCCo monitoring levels or where reads are consistently failing validation but in line with each other.

Where an AA or EAC is subject to an authorised Trading Dispute and the Effective From Settlement Date is after the latest Settlement Date which has been subject to a PFSR, the AA or EAC may be withdrawn without the need to apply GVC. GVC can be applied to any AA or EAC, irrespective of whether these are subject to a Trading Dispute, but error freezing readings can only be applied in the RF Window. Error freezing readings should not be applied at the latest PFSR.

4.14.4 Gross Volume Correction Process

In order to undertake GVC it is first necessary to have an actual, valid Meter register reading and a known realistic annual demand (i.e. have a previous valid AA which indicates the likely demand of the Metering System). This section refers to the processing to be carried out by the NHHDC. Section 3.4.4 should be followed for the interaction between the NHHDC and other participants in this process.

The process is set out below with an explanatory diagram.

Note that there may not be any invalid Meter register reading in the fluid period meaning that there will be an erroneous EAC as opposed to an erroneous AA. Also there may not be a second valid actual reading A2, however the actual or likely consumption pattern will be known.

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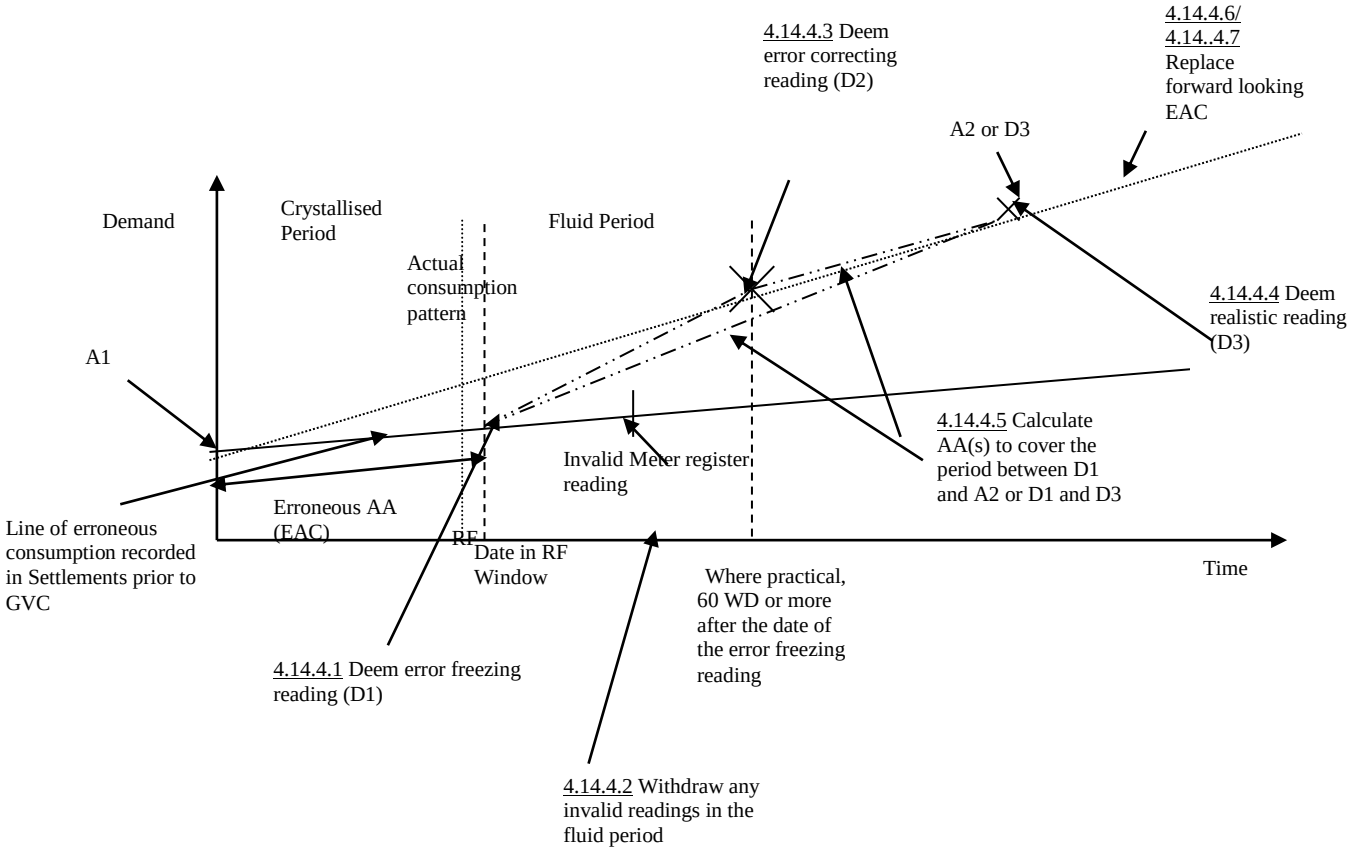

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Ref	Action
4.14.4.1 Mandatory Step	A Deemed Meter Reading, D1, should be calculated in the RF Window to freeze the error that has already crystallised. This shall be calculated using the actual, valid Meter register reading, A1 and the EAC / AA that crystallised in the RF[103] for the Deemed Meter Advance Period starting on the date that the realistic reading A1 was obtained and ending on the date for which D1 was deemed. D1 and A1 may then be used to calculate an AA between D1 and A1. This AA will be the same value as the AA that has already crystallised in the period between A1 and D1.
4.14.4.2 Mandatory step	If there are any invalid Meter readings in the fluid period, these should be withdrawn.
4.14.4.3[104] Optional step	If there is a second actual reading in the fluid period (A2) an AA can be calculated between A1 and A2. Use this to deem a correcting read (D2) for a date as long after the date of the error freezing read as is practical (ideally 60 WD or longer, if possible). The Deemed Meter Advance Period starts on the date of A1 and ends on the day before the Date of D2.
4.14.4.4 Mandatory step if 4.14.4.3 not completed or there is no valid actual reading A2, otherwise optional	If there is no valid Actual reading (A2) in the fluid period, a realistic reading, D3, should be generated in the fluid period, for a Settlement Date as long after the date of the error freezing reading as is practical (ideally 60 WD or longer, where possible). This should be a Deemed Meter Reading (created from the previous actual, valid Meter register reading, A1 and an EAC that is representative of demand for that Metering System (i.e. a previous valid EAC) or, if not available, an initial (class average) EAC).
4.14.4.5 Mandatory step	An AA should be calculated between either D1 and D2 or D1 and A2 or D1 and D3. If the AA has been calculated between D1 and D2, a second AA should be calculated between D2 and A2.
4.14.4.6 Mandatory step	If the deeming process has created a negative forward EAC, this will be replaced by a replacement EAC in accordance with Appendix 4.5.2 e.
4.14.4.7 Optional step	If the forward EAC is demonstrably inconsistent with normal generation or demand for that Metering System and is likely to lead to failure to validate subsequent readings, the EAC going forwards from A2, D2 or D3 may be replaced with a realistic EAC (i.e. an EAC that has been based on a previous valid AA or, if none are available, an initial (class average) EAC). Please note that an EAC should only be replaced where no later readings exist that would allow for the calculation of a further AA that would bring the EAC back into line with previous valid demand or generation trends. Any replacement EACs should be subject to a robust audit process to identify how the replacement EAC was derived.

[103] This may involve reference to D0095 Non-Half Hourly Data Aggregation Exception Report and / or D0023 Failed Instructions data flows to determine if EACs / AAs have been rejected or default EACs applied.

[104] Note that if there has been a discontinuity in the effective Meter reading (e.g. due to a Meter fault or incorrect standing data or processing) within the crystallised period that was not previously taken into account, the corrective Meter Advance (and AA) will need to be adjusted to allow for this.

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4.14.5 Gross Volume Correction and Change of Supplier

GVC can only be used to correct partially crystallised error within the relevant Supplier's Registration period. GVC cannot be used to compensate in a new Supplier's Registration period for errors in the old Supplier's Registration period. This is a natural consequence of the rule in 3.2.6.33 and 3.2.6.34 whereby a Change of Supplier reading can only be replaced by mutual agreement of the two Suppliers via the disputed Change of Supplier readings process, or, if the change of Supplier reading has crystallised, via an authorised Trading Dispute. This means that any error that exists prior to the Change of Supplier is compensated for under the old Supplier's registration and any error that exists after the Change of Supplier is compensated for under the new Supplier's registration. In this way, both Suppliers pay for the correct volume of energy.

Please note that GVC can be applied to correct errors which do not impact the Change of Supplier reading. For example, if the first or last AA of a Supplier Registration has been calculated incorrectly because a Meter rollover has not been identified (or has been incorrectly assumed), the AA can be corrected using GVC (subject to it not having fully crystallised at RF), because the Change of Supplier reading would not need to be replaced or withdrawn.

4.15 Identification of a site as Long Term Vacant.

4.15.1. Criteria for identifying site as Long Term Vacant.

A Supplier may identify a site as Long Term Vacant if it meets <u>all</u> of the following four criteria:

1. The site is energised according to the Supplier Meter Registration Service (SMRS).

2. The Supplier:

   - has received from the NHHDC at least two D0004 'Notification of Failure to Obtain a Reading' data flows, which are at least 75 calendar days apart and not more than 215 calendar days apart, with the J0024 'Site Visit Check Code' data item populated with code 02 'Site not Occupied'; and

   - has not received any D0004s with the J0024 data item populated with anything other than 02 in the interim; and

   - has not received any Meter register readings for that Metering System in the interim.

   If a D0004 data flow is received with the J0024 data item unpopulated, it can be excluded for the purposes of this criterion.

3. The Supplier has made proactive attempts to identify the owner of the property to obtain a Meter reading; proactive attempts could include contacting bodies such as estate agents, letting agents, councils or the land

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registry to find out who the owner is. If the Supplier supplies both gas and electricity, check to see if the same issues are occurring for the gas supply.

When an owner is identified, attempts must then be made to contact them and obtain a reading.

The Supplier may have its own way of meeting this criterion.

4. If the owner is already known, the Supplier must make attempts to contact them to arrange a Meter Reading.

The Supplier must keep auditable records showing that all of these criteria have been met in order to identify a site as Long Term Vacant.

If all the above criteria have been met, but the Supplier has evidence of consumption on the Metering System, the site must not be identified as Long Term Vacant.

4.15.2. Start Date for the Long Term Vacant Period.

The Supplier should identify the start date for the Long Term Vacant period (and its associated zero EAC) as the earlier of the following:

1. The date in the J0016 'Reading Date and Time' data item in the first D0004 received with the J0024 data item populated with code 02; or

2. Where a Customer has closed an account, the last consumption date for that Customer provided that:

   a) This is no more than 215 calendar days before the date of the first D0004 with the J0024 data item populated with the 02 code;

   b) No D0004s with the J0024 data item populated with anything other than the 02 code have been received between the Customer's last consumption date and the date of the first D0004 with J0024 data item populated with code 02;

   c) No Meter register readings for that Metering System have been received between the Customer's last consumption date and the date of the first D0004 with J0024 data item populated with code 02; and

   d) a Meter register reading is received for the Customer's last consumption date.

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4.15.3. Confirmation that the Site remains Long Term Vacant.

Where a Supplier has identified a site as Long Term Vacant and has instructed their NHHDC to enter a zero EAC into Settlement for that site, the Supplier must confirm that all of the following criteria have been met to continue treating the site as Long Term Vacant:

1. The Supplier must receive a D0004 from the NHHDC with the J0024 data item populated with the 02 code at least once every 215 calendar days for the Metering System; and

2. The Supplier must not have received a D0004 from the NHHDC with the J0024 data item populated with anything other than the following codes: 02, 18 'Unsafe Premises', 19 'Call not made on routine visit', 20 'No access' or 28 'Unable to gain access due to insufficient address details' and

3. The Supplier must not have received any Meter register readings for that Metering System in the interim; and

4. At least once every 215 calendar days, the Supplier must make further proactive attempts to identify the owner of the property in order to obtain a Meter Reading (examples of which are detailed in 4.15.1, criterion 3) or, if the owner is known, then the Supplier must continue to attempt to contact them to arrange a Meter Reading. Auditable records must be kept for all attempts to obtain a Meter Reading.

4.15.4. Identification that a site no Longer Qualifies for Long Term Vacant Treatment.

A site will no longer qualify for Long Term Vacant Treatment if any of the following occur:

1. It has been longer than 215 calendar days since the Supplier has received a D0004 from the NHHDC with the code 02 in the J0024 data item; or

2. The Supplier has not made any proactive attempts to try to find out who the owner of the property is and to obtain a Meter reading (examples of which are provided above) in the 215 calendar day period from the receipt of a D0004; or

3. The Supplier has received a D0004 with the J0024 data item populated with a code other than 02; or

4. The Supplier is aware that there is consumption on site, including where the Supplier has found or been informed of the owner of the site and has been able to obtain a Meter reading. This would include where a change of tenancy event had occurred.

If any of the above occur, the Supplier must no longer treat the site as Long Term Vacant and must notify the NHHDC to enter a non-zero EAC into Settlement for the site in accordance with section 3.3.14.

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In addition, the site would no longer qualify for Long Term Vacant treatment if the Supplier has an actual Meter reading. In this scenario, the Supplier would not have to inform the NHHDC that the site no longer qualifies for Long Term Vacant treatment as this would have either been identified by the NHHDC and the NHHDC would have already processed this Meter reading accordingly or the Supplier would have passed the Meter register reading to the NHHDC in accordance with 3.4.1.1.

4.15.5. End Date for the Long Term Vacant Period.

If the Supplier identifies that the site no longer qualifies for Long Term Vacant treatment it should determine the end date of the Long Term Vacant period as follows:

1. Where there has been a change of tenancy, then the date of the change of tenancy should be used as the end date for the Long Term Vacant period;

2. Where a Meter reading has been obtained, the day before the date that the Meter reading was obtained should be used as the end date for the Long Term Vacant period.

3. Where no Meter reading has been obtained (i.e. the Supplier has received a D0004 with the J0024 data item populated with something other than 02) then the date of the last D0004 with the J0024 data item populated with 02 would be used as the end date for the Long Term Vacant period.

4. Where the Supplier has not attempted to read the Meter or make proactive attempts to find out the owner of the premises and obtain entry to take a Meter reading, then the date of the D0004 with the J0024 data item populated with 02 received the last time that the Supplier had made attempts to read the Meter and make proactive attempts to find out the owner of the premises would be used as the end date for the Long Term Vacant period.

If the Supplier does not have a Meter reading for the end of the Long Term Vacant period then the Effective From date for the non-zero EAC would be the day after the end date of the Long Term Vacant period.

4.16 Audit Requirements

4.16.1 Retention of Records

The NHHDC shall ensure that all processes are capable of maintaining data records, together with the user ids of the persons creating or making changes to these records. The minimum period for the retention of records applies to source data as well as the results of processing, where source data is the raw source data (meter reading and associated data in the format originally obtained by the NHHDC) or output material, produced following input into the system, but prior to any processing or amendments. A history of superseded data must be retained, in particular where the status of a reading is changed or where revised data is sent to an Associated NHHDA.

These records must contain such cross references as are necessary to allow verification by tracing data through processing, forwards and backwards,

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conveniently and old software programs and hardware must, where necessary, be retained to enable these records to be accessed. If the EAC/AA System is not used, the NHHDC shall ensure that its data processing system:-

- retains all Daily Profile Coefficient files used to calculate EAC/AA and Deemed meter advances, including those subsequently replaced by revised data;

- Provides a means of archiving Daily Profile Coefficients and Smoothing Parameters once the Final Reconciliation Volume Allocation Run has taken place for that Settlement Day.

4.16.2 Monitoring

The NHHDC shall ensure that all processes are capable of providing statistical information as may be required from time to time by the Panel to enable monitoring of performance against established criteria.

4.16.3 Missing Profile Coefficients

The NHHDC shall ensure that the EAC/AA calculation process must be capable of reporting any request for a Deemed meter advance or EAC/AA which cannot be processed because it relates to GSP Groups, Profile Classes or Measurement Requirements for which no Profile Coefficients have been received by the NHHDC. The report must distinguish between cases where no Profile Coefficients have been received for the relevant Settlement Day and cases where Profile Coefficients have been received for the relevant Settlement Day, but not for the relevant GSP Group, Profile Class or Measurement Requirement.

4.16.4 Version Control on Daily Profile Coefficients

- The system operated by the NHHDC must apply version controls to all sets of Daily Profile Coefficients received from the Supplier Volume Allocation Agent and ensure that all data received has date and version stamps attached to it, identifying the Profile Production Run and the date and time it was received by the NHHDC;

- Add a further date and time stamp to the set of Daily Profile Coefficients received, identifying the date and time that the data was loaded;

- Check that the date and version stamps on sets of Daily Profile Coefficients received from the Supplier Volume Allocation Agent are consistent with those on data sets already received from the SVAA.

4.16.5 Version Control on Output Data

The system operated by the NHHDC must be capable of applying version controls to all data produced by it. It must also be capable of ensuring that data output has date and time stamps attached to it, identifying when the processing was performed.

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4.17 Traceability of Estimated Annual Consumption and Annualised Advance values.

The EAC/AA calculation process must be capable of using the date and time stamp of an EAC/AA output data record, together with the date and time stamp of a profile data load, to determine which Daily Profile Coefficients were used to calculate the EAC/AA.

4.18 Input, Processing and Output

The system operated by the NHHDC must have controls to ensure input, processing and output are valid. Such controls may include the use of software validation checks and exception reporting to identify problems:-

- inaccuracy of data entry;
- Meter readings not in line with historical/expected trends;
- Meters which have not had a physical reading within the minimum period established by the BSC;
- Identification of Metering System Number's which are "dormant" i.e. not currently in use.

In particular, controls should be developed to ensure that illegal and dangerous situations concerning SVA Metering Systems are identified, recorded and reported to the relevant parties for further action. An example would be the identification, during a physical inspection to obtain a meter reading, of a meter which has been tampered with.

4.19 Non-Half Hourly Data Collector Service Levels

This appendix has effect for the purposes of Section 1.2.3 to determine;

(i) The functions to be performed by the NHHDC, 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.

For the purposes of this Appendix:

(a) The references in column 3 of the table to a numbered paragraph are to the relevant paragraph in Section 3.2;

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(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 the relevant BSC Procedure;

(c) References to "Timescales" are to those specified by the relevant BSC Procedure 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 BSC Procedure;

(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)

It should be noted that the following tables include some serials for which the Agent itself is the Data Provider, and some serials which are reported on by another Agent. Where another Agent is responsible for reporting on an Agent's performance, that Agent is named in the Reporting Method column.

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Serial	Sender	Process	Sub-Process	Recipient	Performance Measure	Service Levels	Reporting Method
NC11	Old NHHDC	1.3 Registration Obligations	Missing NHH Meter Reads & History from Old NHHDC to New NHHDC	New HHDC	D0010 and D0152 missing	100% issued to New NHHDC within 15 WD of New NHHDC EFD4	[New NHHDC]

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4.20 Remotely Read Metering Systems

Meter Technical Details

Metering Systems that are configured for remote reading may be identified through the J0483 Meter Type contained in the Non Half Hourly Meter Technical Details established by the NHHMOA.

Where the Meter Type is any one of the following:

- 'RCAMR' (Remotely Configurable Automated Meter Reading);
- 'NCAMR' (Non-Remotely Configurable Automated Meter Reading); or
- 'RCAMY' (Remotely Configurable Automated Meter Reading with Remote Shutdown Capability)

the NHHDC shall ensure that whenever a D0150 is required to be processed by the NHHDC in accordance with this BSCP, the data in the D0313 Auxiliary Meter Technical Details flow is processed successfully for that Metering System.

Where the Meter Type identifies compliance with a version of the Smart Metering Equipment Technical Specification (SMETS), the meter shall be considered smart and the Meter Technical Details shall instead be comprised of the DXXX and DYYY, without a requirement for the D0313.

Data Collection

It is recognised that the NHHDC may receive readings from remotely read Metering Systems on a frequent basis. All readings shall be processed for Settlement purposes, subject to the following exception:

- Routine readings (i.e., readings that are not Change of Supplier, Initial, Final, Special, etc) that, if omitted from Settlement, do not result in there being more than three months between valid readings for a Profile Class 1-4 MS or more than one month between valid readings for a Profile Class 5-8 MS.

For the avoidance of doubt, if Meter readings have not been collected within the periods specified above, then no Meter readings are required to be processed.

The requirements set out in this paragraph do not constitute a requirement to read Meters with the frequencies stated.

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