

Attachment A Redlined BSCP520 v14.0 for CP1291

Section 1.1 – 1.2 no changes

1.2.1 UMSO Responsibilities

Where an UMS has been agreed, each UMSO shall be responsible for the following:-

- a) where the inventory is subject to HH trading, providing a copy of the summary inventory to the appointed MA of an EM. Agreed updates to the summary inventory will be similarly passed to the appointed MA;
- b) providing Unmetered Supply Certificates;
- c) requesting additional MSIDs from the SMRA where additional inventory items need to be allocated to alternative SSCs and associated Profile Class and passing details of all MSIDs and the associated Meter Timeswitch Code and Profile Class to the Supplier for registration;
- d) where the inventory is subject to NHH trading, calculating initial and revised EACs and submitting them to the appointed Supplier and NHHDC;
- e) agreeing with the Supplier the type of EM (i.e. whether passive or dynamic) to be used in the LDSO's area and the location of any associated photo-electric cell unit (PECU) arrays;
- f) informing Suppliers and MA of the weighted average latitude and longitude information for the installed Apparatus for each MSID where an EM is being used;
- g) providing any other additional information required to enable the Supplier to determine the Distribution Use of System (DUoS) charges;
- h) for supporting the Trading Query / Trading Dispute process as required by Section W of the Code;
- i) for responding to any queries raised by the Panel, Supplier, the Supplier Volume Allocation Agent, the Data Collector, the Meter Administrator and / or the BSC Auditor;
- j) providing Suppliers with the data that will enable them to fulfil their obligations under the Code;
- k) notifying Suppliers on discovering that any Settlement data for which the UMSO is responsible is potentially incorrect or missing;
- l) retaining all the data that is necessary for the Supplier to fulfil its Code obligations e.g. history of summary inventories, history of EACs. Data must be retained for a minimum of 40 months;
- m) ensuring that the Customer continues to comply with the conditions for an Unmetered Supply;
- n) issuing an annual spreadsheet containing all UMS EACs for each MSID split by Settlement Register (using the appropriate Average Fraction of Yearly Consumption) to Suppliers each June, and providing confirmation to BSCCo. that this process has occurred; ~~and~~
- o) resending the correct EAC(s) to the NHHDC upon instruction by the Supplier if Supplier identifies a discrepancy between EACs received from NHHDCs to those received from the UMSO; ~~and-~~

p) validating all Charge Codes and Switch Regimes against the Operational Information Document (OID) and associated spreadsheets.

Section 1.2.2 – 1.2.3 no changes

1.2.2-4 Meter Administrator Responsibilities

In summary, the MA is responsible for the following:-

- a) receiving a copy of the agreed summary inventory of the UMS Apparatus for an MSID, together with agreed updates, from the UMSO;
- b) inputting the summary inventory information into the EM and forwarding ~~a copy of the an~~ inventory ~~printout extracted~~ from the EM to the UMSO and Customer;
- c) ~~using receiving from the UMSO~~ the latitude and longitude information for ~~the an~~ MSID appropriate to the installed Apparatus ~~and inputting the information into the EM~~;
- ~~d) validating all Charge Codes and Switch Regimes against the Operational Information Document (OID) and associated spreadsheets;~~
- ~~d) implementing updates to the Appendices of this BSCP when notified;~~
- ~~e) operating and maintaining the EM hardware and software;~~
- ~~f)e~~ ensuring metered data from the EM is available to the HHDC to meet the Volume Allocation Run timescales required by the Supplier;
- ~~g)f~~ indicating to the HHDC when data is not available or missing; and
- g) retaining Settlement data in accordance with this BSCP and ~~Party Service Line~~ 100 'Non Functional Requirements for Licensed Distribution System Operators and Party Agents'.

Section 1.2.4.1 no changes

1.2.42.2 Equivalent Meter Audit Requirements

MAs shall ensure that audit trails are maintained between:

- Equivalent Meter failure reports or energisation/de-energisation requests, and any subsequent ~~readings actions~~ taken; and
- data requested and data sent (or received) in relation to transfers of data between outgoing and incoming MAs.

Section 1.2.4.3 no changes

1.2.42.4 Recording Devices

The MA shall ensure that the import of electrical energy by every SVA Metering System to which it is appointed is accurately recorded by the correct use of an Equivalent Meter ~~which meets the specifications set out in this BSCP~~.

If requested by the LDSO, the MA shall provide details of reactive power as an output from the Equivalent Meter.

1.2.42.5 Systems and Processes

The MA shall use systems and processes so approved in accordance with BSCP537 in the operation of Equivalent Meters. These systems and processes must also comply with all other applicable requirements set out in the Code and other relevant CSDs.

Section 1.2.4.6 – 1.2.5 no changes

1.2.6 Approval of an Equivalent Meter

Equivalent Meter shall be approved as defined in 3.13 and will comply with the Technical Specification for an EM as defined in 4.5.

Section 1.3 – 2.0 no change



3.1 Establishment of a New UMS Inventory

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.1		Agree that the application for UMS meets the requirements of Section 1.1 and receive and agree the inventory of Apparatus from the Customer.	UMSO.	Customer.	Signed UMS Connection Agreement. Customer's Approved Detailed Inventory.	Paper, fax or electronic media, as agreed.
3.1.2		Is UMS to be traded HH? If so, proceed to 3.1.3. If UMS not HH, proceed to 3.1. 1722 .	UMSO.		Notification received from Supplier or Customer.	Internal Process.
3.1.3	If HH.	UMSO request new MSID.	UMSO.	SMRA.	P0171 Request Creation of UMS Skeleton SMRS Record.	Paper, fax or electronic media, as agreed.
3.1.4		SMRA Allocate MSID per UMS Certificate.	SMRA.			Internal Process
3.1.5		Create skeleton, record details of MSID in accordance with BSCP501. ¹ Send MSID(s) to UMSO.	SMRA.	UMSO.	P0171 Request Creation of UMS Skeleton SMRS Record.	Internal Process. Paper, fax or electronic media, as agreed.

¹ Although the SMRA requires a MOA to be appointed, this is a 'dummy MOA' and for record purposes only.



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.6		Complete UMS Certificate. Issue to Customer and Supplier, if appointed earlier on in the process	UMSO.	Customer, Supplier.	P0170 HH Unmetered Supply Certificate.	Internal Process. Paper, fax or electronic media, as agreed.
3.1.7	<u>On Customer request</u>	Confirm with Request from the UMSO the type of EM and and agree the location, if any, of the PECU array(s).	MA	UMSO.	P0176 Request for EM Details.	Paper, fax or electronic media, as agreed.
3.1.8	<u>With 5WD of 3.1.7</u>	AgreeConfirm with Supplier the type of EM and and agree the location, if any, of the PECU array(s) <u>in accordance with the provision of the PECU Array siting procedures in 4.5.1.1.</u> Provide latitude and longitude information to Supplier and MA.	UMSO.	Supplier, MA.	P0068 UMS EM Technical Details.	Paper, fax or electronic media, as agreed.
3.1.9		Send Supplier and registration details to SMRA.	Supplier.	SMRA.	D0055 Registration of Supplier to Specified Metering Point.	Electronic or other agreed method.
3.1.10		Record details for MSID in accordance with BSCP501.	SMRA.			Internal Process.



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.11		Send appointment details and additionally EM details to relevant recipients.	Supplier.	MA. HHDC. HHDA. UMSO.	<u>D0155 Notification of new Meter Operator or Data Collector Appointment and Terms.</u> P0068 UMS EM Technical Details. D0148 Notification of Change to Other Parties. D0155 Notification of new Meter Operator or Data Collector Appointment and Terms. D0148 Notification of Change to Other Parties. D0153 Notification of Data Aggregator Appointment and Terms. D0148 Notification of Change to Other Parties.	Electronic or other agreed method.
3.1.12	Following 3.1.11.	Complete MA tasks.	MA.			Internal Process.
3.1.12 3	<u>Within 5WD</u> f Following 3.1.11.	Send S summary i nventory details to MA.	UMSO.	MA.	P0064 Summary Inventory (for Half Hourly Trading) <u>and/or CMS Control File as appropriate.</u>	Paper, fax or electronic media, as agreed.

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.1 34	Within 5WD validate Summary Inventory against OID. If inventory fails validation items exist in the summary inventory for which no data on load and switching times have been defined.	Provide the MA with additional information to be input into the EM. Reject listing iSummary Inventory and await new Summary Inventory	UMSO/MA.	MA:UMSO	As agreed: List of invalid codes.	Electronic or other agreed method.
3.1.1 45	If Summary Inventory passes validation Following 3.1.13.	Input into EM and sSend copy of Summary Inventory extracted from the MA System to UMSO and to Customer. Input the tables of loads and switching times for items referenced in the summary inventory into the EM. Where items exist in the summary inventory for which no data on load and switching times have been defined the MA shall use information provided by the UMSO. Send copy of meter inventory to UMSO and confirm correct with UMSO. Also send to Customer.	MA.	UMSO, Customer.	P0064 Summary Inventory (for Half Hourly Trading).	Internal Process. Paper, fax or electronic media, as agreed.

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.1 56	If unable to send HH data before SSD items exist in the summary inventory for which no data on load and switching times have been defined and step 3.1.14 is not complete.	Inform the Supplier of an EM fault (as set out in 3.1 43 .1).	MA.	Supplier. HHDC.		Electronic or other agreed method.
3.1.17	Following 3.1.16.	Use the values considered most appropriate until step 3.1.14 is complete and data is provided.	MA.			Internal Process.
3.1.1 68	Following 3.1.17 Prior to SSD or Energisation Date whichever is later.	Send METD and Liaise with HHDC to ensure data from EM can be collected processed.	MA.	HHDC.	P0068—UMS EM Technical Details. D0003 Half Hourly Advances or OR Section 4.5.43 EM Output File ² (or {trial data (see 3.15)}).	Electronic or other agreed method.
3.1.1 79	After 3.1.2 for NHH.	Request new MSID per SSC.	UMSO.	SMRA.	P0171 Request Creation of UMS Skeleton SMRS Record.	Paper, fax or electronic media, as agreed.

² The EM Output file can only be used if a secure method of data transfer has been agreed between the MA and the HHDC,



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1. 1820		Allocate MSIDs per SSC per UMS Certificate. Create skeleton record details of MSIDs in accordance with BSCP501.	SMRA.			Internal Process.
3.1. 1921		Calculate EACs, complete UMS Certificate. Issue UMS Certificate to Customer and Supplier if appointed earlier on in the process.	UMSO.	Customer, Supplier	P0207 NHH Unmetered Supply Certificate.	Internal Process. Paper, fax or electronic media, as agreed.
3.1. 202		Send Supplier and registration details to SMRA for all listed MSIDs.	Supplier.	SMRA.	D0055 Registration of Supplier to Specified Metering Point.	
3.1.213		Record details for all of the MSIDs in accordance with BSCP501.	SMRA.			Internal Process.



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.1.2 24		Send appointment details.	Supplier.	NHHDC. UMSO. NHHDA.	D0148 Notification of Change to Other Parties. D0155 Notification of new Meter Operator or Data Collector Appointment and Terms. D0148 Notification of Change to Other Parties. D0155 Notification of new Meter Operator or Data Collector Appointment and Terms. D0153 Notification of Data Aggregator Appointment and Terms.	Electronic or other agreed method.
3.1.2 35		Send split EAC, Profile Class and SSC details for each MSID.	UMSO.	Supplier, NHHDC.	D0052 Affirmation of Metering System Settlement Details.	Electronic or other agreed method.
3.1.2 46	On receipt of D0052.	Validate D0052.	NHHDC		In accordance with BSCP504 Non-Half Hourly Data Collection.	Internal Process.
3.1.2 57	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.	Electronic or other agreed method.

3.2 Amendment to Inventory

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
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REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.1	When change(s) to Unmetered apparatus.	Send proposed revised detailed inventory to UMS.	Customer.	UMSO.	Customer's proposed revised detailed inventory.	Paper, fax or electronic media, as agreed.
3.2.2		Ensure revision to the inventory of Apparatus meets the requirements of Section 1.1 and also agree the revised inventory of Apparatus with Customer.	UMSO.	Customer.	Customer's Approved Detailed Inventory <u>with agreed EFD.</u>	Paper, fax or electronic media, as agreed.
3.2.3		Is UMS traded HH? If so, proceed to 3.2.4. If not HH, proceed to 3.2.6.	UMSO.		Notification received from Supplier or Customer.	Internal Process.
3.2.43	If HH <u>following 3.2.2, when UMSO has agreed amendment to Summary Inventory with Customer, then within 5WD.</u>	Send revised <u>S</u> summary <u>I</u> nventory details to MA.	UMSO.	MA.	P0064 Summary Inventory (for Half Hourly Trading) <u>and/or CMS Control File as appropriate.</u>	Paper, fax or electronic media, as agreed.

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.54	If items exist in the updated summary inventory for which no data on load and switching times have been defined.	<u>Reject listing invalid codes to the UMSO and continue to use or re-apply previous inventory. Provide the MA with additional information to be input into the EM.</u>	<u>MA, UMSO.</u>	<u>UMSOMA.</u>	<u>List of invalid codes. As agreed</u>	Electronic or other agreed method.
3.2.65	<u>Within 5WD of receipt or by the EFD. Following 3.2.7.</u>	<u>Input and sSend copy of Summary Inventory extracted from the MA System to UMSO and to Customer.</u> <u>Input the tables of loads and switching times for items referenced in the summary inventory into the EM. Where items exist in the summary inventory for which no data on load and switching times have been defined the MA shall use information provided by the UMSO.</u> <u>Send copy of meter inventory to UMSO and confirm correct with UMSO. Also send to Customer.</u>	MA.	UMSO, Customer.	P0064 Summary Inventory (for Half Hourly Trading) <u>and/or CMS Control File as appropriate.</u>	Internal Process. Paper, fax or electronic media, as agreed.

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.76	If items exist in the summary inventory for which no data on load and switching times have been defined and step 3.2.8 is not completed.	Inform the Supplier of an EM fault (as set out in 3.13).	MA.	Supplier		Electronic or other agreed method.
3.2.87	Following 3.2.10.	Use the values considered most appropriate until step 3.2.8 is complete and data is provided. <u>Use existing information and request revised detail from the UMSO</u>	MA.	<u>UMSO</u>	<u>Request for revised detail.</u>	<u>Internal Process. Electronic or other agreed method.</u>
3.2.69	After 3.2.2 for NHH.	If required request additional MSID(s) per SSC.	UMSO.	SMRA.	P0171 Request Creation of UMS Skeleton SMRS Record.	Paper, fax or electronic media, as agreed.
3.2.710		Where appropriate allocate additional MSID(s) per SSC. Create skeleton record details of MSID(s) in accordance with BSCP501. ¹	SMRA.			Internal Process.



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2. 11 8		Send MSID(s) to UMSO.	SMRA.	UMSO.	P0171 Request Creation of UMS Skeleton SMRS Record.	Paper, fax or electronic media, as agreed.
3.2. 9 12		Calculate revised EACs. Complete UMS Certificate. Issue to Customer and Supplier.	UMSO.	Customer, Supplier.	See Appendix 4.4. P0207 NHH Unmetered Supply Certificate. .	Paper, fax or electronic media, as agreed.
3.2.1 0 3		As required, for any MSID(s) with zero EACs follow de-energisation and Disconnection process as set out in (3.7) and (3.8) respectively. Send to SMRA for any additional listed MSIDs.	Supplier.	SMRA.	D0055 Registration of Supplier to Specified Metering Point.	
3.2.1 1 4		Record details in accordance with BSCP501.	SMRA.			Internal Process.



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.2.1 24 ⁵		Where appropriate, send appointment details.	Supplier.	NHHDC. UMSO. NHHDA.	D0148 Notification of Change to Other Parties. D0155 Notification of new Meter Operator or Data Collector Appointment and Terms. D0148 Notification of Change to Other Parties. D0155 Notification of new Meter Operator or Data Collector Appointment and Terms. D0153 Notification of Data Aggregator Appointment and Terms.	Electronic or other agreed method.
3.2.1 36		Send revised split EAC, Profile Class and SSC details for each MSID.	UMSO.	Supplier, NHHDC.	D0052 Affirmation of Metering System Settlement Details.	Electronic or other agreed method.
3.2.1 47	On receipt of D0052.	Validate D0052.	NHHDC		In accordance with BSCP504 Non-Half Hourly Data Collection.	Internal Process.
3.2.1 58	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.	Electronic or other agreed method.

3.3.1 Half Hourly Trading

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
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REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.1.1	By SSD - 1WD.	Establish with the UMSO that the UMS Certificate is appropriate and that the UMS meets the requirements of Section 1.1. Send Supplier and registration details to SMRA.	New Supplier.	UMSO. SMRA.	P0170 HH Unmetered Supply Certificate. D0055 Registration of Supplier to Specified Metering Point.	Paper, fax or electronic media, as agreed.
3.3.1.2		Provide latitude and longitude information.	UMSO.	New Supplier, MA.	P0068 UMS EM Technical Details.	Paper, fax or electronic media, as agreed.
3.3.1.3		Record details for MSID in accordance with BSCP501.	SMRA.			Internal Process.



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
<u>3.3.1.23.3.1.4</u>		Send appointment details and additionally EM details to relevant recipients.	Supplier.	New HHDC. UMSO. New HHDA. New MA.	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms. D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms. D0153 Notification of Data Aggregator Appointment and Terms. D0155 Notification of New Meter Operator or Data Collector Appointment and terms. P0068 UMS EM Technical Details. D0148 Notification of Change to Other Parties.	Electronic or other agreed method.



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
<u>3.3.1.3</u>		<u>Agree with Supplier the type of EM and the location, if any, of the PECU array(s) accordance with the provision of the PECU Array siting procedures in 4.5.1.1.</u> <u>Provide latitude and longitude information to Supplier and MA.</u>	<u>UMSO.</u>	<u>Supplier, MA.</u>	<u>P0068 UMS EM Technical Details.</u>	<u>Paper, fax or electronic media, as agreed.</u>
<u>3.3.1.4</u>	<u>If New MA</u>	<u>See Sections 3.4.3 to 3.4.5</u>				
<u>3.3.1.5</u>	<u>If New DC</u>	<u>See Sections 3.5.2 to 3.5.3</u>				
<u>3.3.1.6</u>		<u>Send appointment termination details.</u>	<u>Old Supplier.</u>	<u>Old MA.</u> <u>Old HHDC.</u> <u>Old HHDA.</u>	<u>D0151 Termination of Appointment or Contract by Supplier.</u>	<u>Electronic or other agreed method.</u>
<u>3.3.1.5</u>		<u>Complete MA tasks.</u>	<u>New MA.</u>			<u>Internal Process.</u>
<u>3.3.1.7</u> 3.3.1.6	<u>If New MA</u>	<u>Send Summary Inventory details to MA. See Section 3.4.3</u> Send summary inventory details to MA.	<u>UMSO.</u>	New MA.	<u>P0064 Summary Inventory (for Half Hourly Trading) and/or CMS Control File as appropriate.</u>	<u>Paper, fax or electronic media, as agreed.</u> Paper, fax or electronic media, as agreed.

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.3.1.83 3.3.1.7	If New MA	Reject listing invalid codes to the UMSO and continue to a use or re-apply previous inventory. Input information into the EM. Send copy of input data to UMSO and confirm correct.	MA, New MA.	UMSO UMSO.	List of invalid codes. P0064 Summary Inventory (for Half Hourly Trading).	Electronic or other agreed method. Internal Process Paper, fax or electronic media, as agreed.
3.3.1.93 3.3.1.8	If New MA, Prior to SSD or Energisation Date whichever is later.	Send METD and liaise with HHDC to ensure data from EM can be processed collected and liaise to ensure that data from EM can be collected.	MA, New MA.	HHDC, New HHDC.	P0068 UMS EM Technical Details. D0003 Half Hourly Advances OR Section 4.5.3 EM Output File⁵ or trial data (see 3.15). P0068 UMS EM Technical Details. D0003 Half Hourly Advances OR Section 4.5.3 EM Output File (trial data).	Electronic or other agreed method. Electronic or other agreed method.
3.3.1.9		Send appointment termination details.	Old Supplier.	Old MA. Old HHDC. Old HHDA.	D0151 Termination of Appointment or Contract by Supplier. D0151 Termination of Appointment or Contract by Supplier. D0151 Termination of Appointment or Contract by Supplier.	Electronic or other agreed method.
3.3.1.10	<u>If concurrent with change of MA</u>	Liaise with old HHDC to ensure data from EM can be collected up to end date.	Old MA.	Old HHDC.	P0173 Confirmation of End Readings Date.	Electronic or other agreed method.



Section 3.3.2 – no changes

3.4 Change of MA

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.1		Send details of appointed MA. Send EM details to MA.	Supplier.	UMSO. HHDC. New MA.	D0148 Notification of Change to Other Parties. D0148 Notification of Change to Other Parties. P0068 UMS-EM Technical Details. D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms.	Electronic or other agreed method.
3.4.2		Send appointment termination details to old MA.	Supplier.	Old MA.	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other agreed method.
<u>3.4.3</u>		<u>Send Summary Inventory details to MA.</u>	<u>UMSO.</u>	<u>New MA.</u>	<u>P0064 Summary Inventory (for Half Hourly Trading) and/or CMS Control File as appropriate.</u>	<u>Paper, fax or electronic media, as agreed.</u>

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.43	On expiry/ termination of the MA's appointment as MA in respect of a SVA Metering System.	Transfer Request sufficient metering information to enable the incoming MA to assume responsibility for the SVA Metering System. This data may exclude that data provided by the Supplier pursuant to paragraph 1.2.4.1.	Old-New MA.	New-Old MA.	As agreed.	Electronic or other agreed method.
3.4.54	On appointment	Send metering Transfer information.	New-Old MA.	New MA HHDC .	P0068-UMS-EM Technical Details: As aAgreed	Electronic or other agreed method.

3.5 Change of Data Collector for an existing MSID

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5.1		Send new HHDC or NHHDC registration details to SMRA.	Supplier.	SMRA.	D0205 Update Registration Details.	Electronic or other agreed method.
3.5.2		Update details for MSID in accordance with BSCP501.	SMRA.			Internal Process.
3.5.3		Is UMS to be traded HH? If so, proceed to 3.5.4. If UMS not HH, proceed to 3.5.8.	UMSO.		Notification received from Supplier.	Internal Process.

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5.42	<u>If HH.</u>	Send details of appointed HHDC.	Supplier.	MA. New HHDC. <u>If New HHDA</u>	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms. D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms. D0148 Notification of Change to Other Parties. <u>D0153 Notification of Data Aggregator Appointment and Term</u>	Electronic or other agreed method.
3.5.53		Send METD to new HHDC and liaise with both HHDCs to ensure data from EM can be collected to/from transition date.	MA.	New HHDC. Old HHDC.	P0068 UMS EM Technical Details. D0003 Half Hourly Advances. OR Appendix 4.5.43 EM Output File <u>or</u> (trial data (see 3.15)). P0173 Confirmation of End Readings Date. P0174 Confirmation of Start Readings Date.	Electronic or other agreed method.
3.5.64		Send appointment termination details to old HHDC.	Supplier.	Old HHDC.	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other agreed method.



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5.7		Liaise with MA to ensure data from EM can be collected up to end date.	Old HHDC.	MA.	D0151 Termination of Appointment or Contract by Supplier. P0173 Confirmation of End Readings Date.	Electronic or other agreed method.
3.5.58	If NHH.	Send appointment details of new NHHDC and details of previous Supplier's NHHDC.	Supplier.	New NHHDC. UMSO.	D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms. D0148 Notification of Change to Other Parties. D0155 Notification of New Meter Operator or Data Collector Appointment and Terms.	Electronic or other agreed method.
3.5.69		Send appointment termination details of old NHHDC.	Supplier.	Old NHHDC.	D0151 Termination of Appointment or Contract by Supplier.	Electronic or other agreed method.
3.5.710		Request from old NHHDC details of split EAC, Profile Class and SSC details for each MSID.	New NHHDC.	Old NHHDC.	D0170 Request for Metering System Related Details.	Electronic or other agreed method.



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.5. 811		Send details for each MSID.	Old NHHDC.	New NHHDC.	D0152 Metering System EAC/AA Historical Data. D0036 Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix.	Electronic or other agreed method.
3.5. 912		Request from New NHHDC details of split EAC, Profile Class and SSC details for each MSID.	Supplier.	New NHHDC.	D0170 Request for Metering System Related Details.	Electronic or other agreed method.

Section 3.6 – no changes

3.7 Change of Energisation Status of an MSID

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.7.1		Request UMSO to energise or de-energise an MSID.	Supplier.	UMSO.	D0134 Request to Change Energisation Status.	Electronic or other agreed method.
3.7.2		Complete work, as appropriate. Was UMS traded HH? If so, proceed to 3.7.3. If UMS not HH, proceed to 3.7. 89 .	UMSO.		Notification received from Supplier.	Internal Process.



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.7.3	If HH.	Confirm to Supplier and MA actual energisation or de-energisation date.	UMSO.	MA. Supplier.	D0139 Confirmation or Rejection of Energisation Status Change. D0139 Confirmation or Rejection of Energisation Status Change.	Electronic or other agreed method. Electronic or other agreed method.
3.7.4		Notify SMRA of energisation or de-energisation date for an MSID.	Supplier.	SMRA.	D0205 Update Registration Details	Electronic or other agreed method.
3.7.5		Notify HHDC of energisation or de-energisation date for an MSID.	MA.	HHDC.	D0139 Confirmation or Rejection of Energisation Status Change.	Electronic or other agreed method.
3.7.6		Liaise with HHDC to stop <u>or</u> <u>start</u> collecting data.	MA.	HHDC.	P0173 Confirmation of End Readings Date. <u>or</u> <u>P0174 Confirmation of Start Readings Date.</u>	Paper, fax or electronic media, as agreed.



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.7.7	When a Metering System has been set to de-energised On change of energisation status.	Set the output of the EM to zero for each SVA Metering System that has been de-energised. <u>Or</u> <u>start Collection Activities see 3.9.1</u>	MA			Internal Process.
3.7.8		Update record for MSID as per BSCP501.	SMRA.			Internal Process.
3.7. 89	If NHH.	Confirm to Supplier and NHHDC actual energisation or de-energisation date.	UMSO.	NHHDC. Supplier.	D0139 Confirmation or Rejection of Energisation Status Change. D0139 Confirmation or Rejection of Energisation Status Change.	Electronic or other agreed method. Electronic or other agreed method.
3.7. 9810		Notify SMRA of energisation or de-energisation date for an MSID(s).	Supplier.	SMRA.	D0205 Update Registration Details.	Electronic or other agreed method.

~~3.8~~3.8 Disconnection of an MSID Following De-energisation³

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.8.1		Request UMSO to Disconnect an MSID, identifying whether any physical work is required.	Supplier.	UMSO.	D0132 Request for Disconnection of Supply.	Paper, fax or electronic media, as agreed.
3.8.2		Complete any physical work as required. Send actual Disconnection date.	UMSO.	SMRA. Supplier.	P0175 Request to SMRA to Disconnect a UMS Metering Point. D0125 Confirmation of Disconnection of Supply.	Internal Process. Paper, fax or electronic media, as agreed.
3.8.3		Update record for MSID as per BSCP501.	SMRA.	Supplier.	D0171 Notification of LDSO Changes to Metering Point Details.	.
3.8.4		Was UMS traded HH? If so, proceed to 3.8.5. If UMS not HH, proceed to 3.8.6.	UMSO.		Notification received from Supplier.	Internal Process.

³ Where logical disconnection has taken place e.g. on CoMC then the disconnection process can be followed without the de-energisation process



REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.8.5	If HH.	Notify MA, HHDC and HHDA of appointment termination date for an MSID.	Supplier.	MA, HHDC, HHDA.	D0151 Termination of Appointment or Contract by Supplier. D0151 Termination of Appointment or Contract by Supplier. D0151 Termination of Appointment or Contract by Supplier.	Electronic or other agreed method.
3.8.6	If NHH.	Send appointment termination date for an MSID.	Supplier.	NHHDC, NHHDA, UMSO.	D0151 Termination of Appointment or Contract by Supplier. D0151 Termination of Appointment or Contract by Supplier. D0151 Termination of Appointment or Contract by Supplier.	Electronic or other agreed method.



~~3.9.1~~ 3.9.2 Half Hourly Trading

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.9.1.1	As agreed with Suppliers schedule.	Produce <u>and validate</u> metering data from the EM for each energised MSID for each Settlement Day.	MA.		D0003 Half Hourly Advances OR Section 4.5.3 EM Output File⁴	Internal Process.
3.9.1.2	As agreed with Suppliers schedule	Validate the metering data.	MA.		D0003 Half Hourly Advances OR Section 4.5.3 EM Output File⁶	Internal Process.
3.9.1. 23	At such time as to allow the HHDC to collect the data and carry out its obligations to ensure that the correct data is used for the purpose of the Initial Volume Allocation Run.	MA to notify HHDC of metering data.	MA.	HHDC.	D0003 Half Hourly Advances OR Section 4.5. 43 EM Output File ⁴ .	Electronic or other agreed method.
3.9.1.4	If MTD change.	Send revised MTD.	MA.	HHDC.	P0068 UMS EM Technical Details.	Electronic or other agreed method.

⁴ The EM Output file can only be used if a secure method of data transfer has been agreed between the MA and the HHDC,

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.9.1.5	When the summary inventory has been changed.	Send the output of the EM with the summary inventory used by the EM identified with the first Settlement Day to which it was applied.	MA.	UMSO.	EM Output, revised Summary Inventory (P0064) and the Settlement Day to which it was first applied.	Electronic or other agreed method.
3.9.1.36	If data is missing or invalid.	Resolve any missing or invalid data with MA.	HHDC. <u>MAHDC</u>	MAMA. <u>HHDC</u>	D0003 Half Hourly Advances OR Section 4.5.3 EM Output File (re-send data). D0004 Notification of Failure to Obtain Reading.	Electronic or other agreed method.
3.9.1.7	If data is missing.	Estimate any missing data and process all data (estimated and metering data) according to BSCP502.	HHDC.		See BSCP502.	Internal Process.
3.9.1.8	As agreed with Suppliers schedule	Send valid data.	HHDC.	LDSO, HHDA, Supplier.	D0036 Validated Half Hourly Advances For Inclusion In Aggregated Supplier Matrix.	Electronic or other agreed method.
<u>3.9.1.4</u>		<u>Re-send EM Output File</u>	<u>MA</u>	<u>HHDC</u>	<u>Section 4.5.43 EM Output File (re-send data).</u> <u>D0003 Half Hourly Advances</u> OR <u>Section 4.5.43 EM Output File</u> ⁴	
3.9.1.9		Resolve any inconsistencies in accordance with BSCP502.	HHDA.	HHDC.		Electronic or other agreed method.

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.9.1.51 0	When requested by UMSO.	Use one or more PECU Arrays (as advised by the UMSO) to input into the EM to determine the switching times of relevant items on the summary inventory.	New MA.			Internal Process.
3.9.1.61 1	As required	Request details of the EM.	HHDC.	MA.		Electronic or other agreed method.
3.9.1.71 2	Following 3.9.1.611	Provide details from the EM.	MA.	HHDC.	Full details of how to extract and interpret the Half Hourly data relevant to a SVA Metering System Number from the Equivalent Meter.	Electronic or other agreed method.

~~3.14~~ Section 3.9.2 – 3.13 no changes

3.14 Fault Reporting⁵ – Investigating Inconsistencies

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.14.1	When a potential fault <u>or inconsistency with an EM</u> is identified for which the MA is responsible, which means that data may be or is missing	Advise of the potential for a fault <u>or inconsistency</u> .	MA. Any Participant	Supplier, HHDC. MA.	Details of the potential fault.	Electronic or other agreed method.

⁵ Failures related to PECU arrays are covered in 4.5.1.2.

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
	and/or incorrect.					
3.14.2	Within 55-2 WD of the-identification of the-a potential fault.	Investigate the potential fault and rectify it as required.	MA.			Internal Process.
3.14.3	As soon as reasonably practical following 3.14.21.	Report the fault and the dates covered by the fault and the date and time of rectification.	MA.	Supplier, UMSO, HHDC.	Details of the fault, including the dates covered by the fault and the date and time of rectification.	Electronic or other agreed method.
3.14.4	Following 3.14.2, where it is possible to re-run the EM system to rectify the error.	Advise the HHDC that the correct data is available and provide assistance as reasonably required to the HHDC in recovering the data. Send corrected data	MA.	HHDC.	Corrected data, D0003 Half Hourly Advances OR Section 4.5.4 EM Output File ⁴	Electronic or other agreed method.

3.15 Proving HH Unmetered SVA Metering Systems

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.15.1	As required.	Install and test communication equipment.	MA.		In accordance with the Supplier's requirements.	As agreed.
3.15.2	On each occasion that an HHDC is appointed, who is not currently appointed to another SVA Metering System to which the MA is also	Compare HH data output from the EM against test data obtained by the new HHDC. Confirm that the data matches.	MA.	<u>New HHDC</u>	Test data from the HHDC. Matching EM test data. Create and send Test Trial Data	Internal Process.



REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
	appointed.					
3.15.3	After 3.15.2	Confirm that the data matches.	MA.	HHDC.	Confirmation that the data matches.	Electronic or other agreed method.
3.15.4	After 3.15.2.	Record the Proving Test and report any errors found to the HHDC.	MA.	HHDC.	Proving Test Results.	Electronic or other agreed method.
3.15. <u>35</u>	After 3.15.2.	Record the Proving Test and report any errors found to the MA.	<u>New</u> HHDC.	MA.	Proving Test Results.	Electronic or other agreed method.
3.15. <u>46</u>	After 3.15.53.	Rectify any errors reported by the HHDC as a result of a Proving Test <u>and repeat 3.15.2.</u>	MA.			Internal Process.

Section 4.1- 4.4 no changes

4.5 Equivalent Meter Specification

The specification below is insufficient for a Code of Practice but describes the required functionality of Equivalent Meters used to provide Settlement consumption data for Unmetered Supplies ~~This is an interim measure until a full specification can be produced at a later stage under the auspices of the Panel.~~

New hardware and software systems complying with the relevant sections of this Appendix 4.5 may be developed and submitted to the UMSUG and the Panel for approval in accordance with Section 3.13 Approval of New Equivalent Meter. Once approved, a system may be used in conjunction with any other hardware and software so long as there is no material impact on the Equivalent Meter's original approval. Where such impact is believed to be material, further approval should be sought.

It should be noted that with regard to dynamic meters using CMS Data, approval may be sought for either:

- A dynamic meter, i.e. a system that meets the requirements of an MA system as specified in 4.5.2.3 (e.g. that it can accept the files described in 4.5.2.3 a) and 4.5.2.3 c));
- A CMS, i.e. a system that meets the requirements of a CMS as specified in 4.5.2.3 (e.g. that can produce the file described in 4.5.2.3 c)); or
- A system that combines the functions of a CMS and a dynamic meter MA system in a single application, i.e. that meets all the requirements as specified in 4.5.2.3).

A list of approved Equivalent Meter types can be found on the BSC Website.

4.5.1 ~~Hardware~~ ~~PECU Arrays~~ Equivalent Meter Calculations

Equivalent Meters undertake the calculation as defined below:

For the Summary Inventory effective on the relevant day for that Sub-Meter, for either:

- each CMS controlled item, or
- each Charge Code & Switch Regime combination

multiply the number of items by the circuit watts (full or dimmed as appropriate) for the relevant Charge Code by the seconds attributable (full or dimmed as appropriate) to the Switch Regime and divide by 1,000 to determine the kWh in each half hour.

For each Sub-Meter, the seconds attributable to the Switch Regime in each half hour are derived, in order, from:

- 1 For CMS controlled items, the switching times and power level information in the event file (as defined in 4.5.2.3 c)) received from the CMS System (or where events have not been received at the time of the calculation, default arrangements defined in section 4.5.2.3 g));
- 2 For PECU Array determined items, the switching events recorded by the PECUs representing the Switch Regime in the Primary PECU Array (or the Secondary PECU Array where data from the Primary Array is not available and where a Secondary Array is defined) which passes validation (4.5.2.2 d). Where data is not available from the Primary or Secondary PECU Array, switching times from the default Switch Regime shall be used in accordance with 3 & 4 below;
- 3 For items with a Switch Regime not determined by a PECU Array but linked to the sunset/sunrise times, then the times as defined by the Switch Regime in conjunction with the Astronomical Almanac (4.5.2.1 e); or
- 4 For items with fixed switching times, then those times defined by the Switch Regime.

For each MSID, sum the kWh for each combination described above for each Sub-Meter, round the calculation to one decimal place.
Repeat for each half hour of the Settlement Day.
An identical process shall occur for kVArh data (4.5.2.1 f & 4.5.2.3 d).

Note: The EM will log all switching actions to the nearest minute.

Section 4.5.1.1 no changes

Section ~~4.5.1.2~~ 4.5.2 **PECU Array Operating Procedure**

Overview

Before a Supplier can provide the Customer with a Half Hourly Unmetered Supply the PECU array installations must be operational and a MA appointed. The PECU arrays must conform to the specification as set out in the paragraph Specification for PECU arrays.

Types of PECUs

There are different types of PECUs, with different operating characteristics. Therefore, so that the operation of the PECU arrays reflect reality:-

PECUs used in the PECU array are to be ex-circuit as per the age of the population they are representing, i.e. not new cells

The PECUs in the PECU array are to be proportional to the various types in the area covered by the PECU array.

PECU Representation in Equivalent Meter

The operation of each PECU is deemed to be proportional to the population on the PECU array of that type of cell, e.g. if there are 8 cells of one type, then the operation of each one will represent the operation of one eighth i.e. 12.5% of the load controlled by that type of cell.

Multiple PECU Arrays

If more than one PECU array is used per Inventory, then the operation of a PECU cell is deemed to be proportional to the population of that type of PECU controlled load within the area covered by that PECU array. Therefore, where more than one PECU array is used per inventory, the inventory must identify which PECU array is controlling each item.

PECU Array Maintenance and Upkeep

Each PECU array shall be installed, maintained and operated in accordance with Good Industry Practice and the accuracy of its clock be maintained within +/- 20 seconds.

The MA shall monitor the performance of the PECU Arrays to ensure that that the single cells are representative of the total population of the cells within the summary inventory.

Where the monitoring of the PECU Arrays indicates that the switching light level of a single cell is out of line with other cells of identical type in the same PECU Array, the single cell should be replaced.

Annually, the MA shall ensure that the PECU Arrays continue to reflect the requirements of the Unmetered Supplies Certificate. The MA shall notify the Supplier of the results of the annual review.

Where the LDSO has indicated, pursuant to paragraph 1.2.4.1, that a SVA Metering System to which the Meter Administrator has been appointed requires data from a

Central Management System, the Meter Administrator shall provide ad-hoc extracts of the operational event data received from such system to the LDSO on request.

The hardware and software associated with any Central Management System shall be installed, maintained and operated in accordance with Good Industry Practice, with clocks synchronised to UTC and accurate to within ± 20 seconds.

PECU Array Failure

If a single PECU on the PECU array stops operating, then the remaining operating cells of that type will represent a correspondingly higher proportion of the load.

If communications with a PECU array are lost, then data from the adjacent PECU array will be used. In the event of total PECU array data failure, the relevant time switch profile, adjusted to the burning hours assumption used by the UMSO for that PECU regime will be used; these assumptions will be refined as actual data becomes available. In the event of data recovery within the Settlement period the MA will rerun EM and submit the corrected meter readings to the HHDC.

~~The EM will log all switching actions to the nearest minute.~~

Note: There can be more than one cycle of operation within 24 hours. The EM will monitor failed PECUs. The MA must replace failed PECUs within 5 WD. The MA shall ensure that the Customers provide replacement cells of the age and type requested by the MA.

Section 4.5.2.1- 4.8.2 no change