

Balancing and Settlement Code

BSC PROCEDURE

Unmetered Supplies Registered in SMRS

BSCP520

Version 26.0

Date: 1 November 2018

Amended for CPzzzz – reactive power

- data requested and data sent (or received) in relation to transfers of data between outgoing and incoming MAs.

1.2.4.3 Resolution of Queries and Disputes

The MA shall respond to queries raised by the Supplier, UMSO, the Supplier Volume Allocation Agent, the HHDC, the BSC Auditor and the LDSO.

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

1.2.4.4 Recording Devices

The MA shall ensure that the import of electrical energy by every MSID to which it is appointed is accurately recorded by the correct use of an Equivalent Meter.

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

1.2.4.5 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.

1.2.4.6 Termination of Appointment of Meter Administrator

The MA shall prepare and maintain plans that will enable its Supplier's obligations under the Code to continue to be met notwithstanding the expiry or termination of the MA's appointment as the MA. The plans, which the MA undertakes to implement on any such expiry or termination, will include the immediate transfer of data and other information to an incoming MA appointed by the Supplier or to the Panel.

Details of the processes to be followed when there is a Change of MA are set out in Section 3.4.

1.2.4.7 Summary Inventories and CMS Control File

The MA shall record a history of the Summary Inventories and CMS Control Files and their effective dates input to the Equivalent Meter.

Details of the processes to be followed for new and updated Summary Inventories and CMS Control Files are described in more detail in Sections 3.1 and 3.2 of this document.

Where the Summary Inventory or CMS Control File is not provided by the UMSO or is not relevant to a half hourly unmetered Measurement Class the MA shall request the UMSO to provide the correct information and inform the associated Supplier if it is not provided in time to allow data to be submitted for the Initial Settlement Run for any MSID to which the MA has been appointed.

3.4 Change of MA

REF.	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
3.4.1		Send details of appointed MA.	Supplier.	HHDC. New MA.	D0148 Notification of Change to Other Parties. 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.
3.4.3		Send New MA details to SMRA	Supplier.	SMRA.	D0205 Update Registration Details Including MA MPID in MOA Id data item (J0178)	Electronic or other agreed method.
3.4.4		Send Summary Inventory and/or CMS Control File (as appropriate) details to MA.	UMSO.	New MA.	Summary Inventory and/or CMS Control File as appropriate.	Paper, fax or electronic media, as agreed.
3.4.5		Request sufficient information to enable the incoming MA to assume responsibility for the MSID. This data may exclude that data provided by the Supplier pursuant to paragraph 1.2.4.1.	New MA.	Old MA.	As agreed.	Electronic or other agreed method.
3.4.6		Transfer information.	Old MA.	New MA.	As agreed.	Electronic or other agreed method.
3.4.7	On appointment.	For each MSID, use the EM to determine the HH kWh consumption (and kVArh if requested by the UMSO) by MSID.	New MA.			Internal Process.

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

Equivalent Meter - Calculation

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 received from the CMS System (or where events have not been received at the time of the calculation, default arrangements defined in this BSCP);
- (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. 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; 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.~~

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

MSID;

Effective From Date;

Inventory title and/or reference;

Charge Code;

Switch Regime;

Total number of units of each Charge Code/Switch Regime combination.

- (c) The Meter Administrator shall be able to add, delete and modify Charge Code and their associated circuit watts ~~and circuit Volt Amperes reactive (VArS)~~ for both full load circuit loading and dimmed load ratings as appropriate.
- (d) The Meter Administrator shall be able to add, delete and modify Switch Regimes and their associated operating times. The system shall be populated using the offsets and fixed times defined in the OID associated spreadsheets for each Switch Regime.
- (e) The system shall use the average latitude and longitude information and a sunrise/sunset algorithm to calculate the time of sunrise and sunset for each day within two minutes of the sunrise and sunset times as derived from the Astronomical Almanac.
- (f) The system shall calculate, as defined in 4.5.1, the import kWh ~~and import kVarh~~ in each half hour period in UTC for each MSID.
- (g) The system shall provide an output file in the format shown in 4.6.4 for provision to the appointed HHDC.
- (h) The system shall provide an audit trail of changes to data held.

YYYYMMDD = date to which the events pertain
 VVV = version number

File body: UUUUUUUUUUUUHHMMSSPPP.PPI
 where:
 UUUUUUUUUUUU = CMS Unit Reference (alphanumeric)
 HHMMSS = time in hours, minutes and seconds, in UTC throughout the year
 PPP.PP = percentage of base power i.e. undimmed power level applied to the lamp, to 2 decimal places
 I = information flag (alphanumeric)

File trailer: TNNNNNNN
 where:
 T = trailer identifier, capital T
 NNNNNNN = total number of lines including header and trailer

All lines must be the correct length and terminated with a carriage return, including all tail lines.

The information flag 'I' in the file body may be used to provide any further information relating to the data contained within the operational event log, e.g. if there are omissions, errors, etc. An alphanumeric value must be provided, although the value used for this information flag and how it is used by the CMS or the MA are currently not prescribed under the BSC, so the CMS manufacturer can specify its use/structure (and agree any such functionality with the relevant MA).

For each CMS Unit Reference which is reported in a log file the time (HHMMSS) for each entry must differ.

Any revisions to previously-reported data for events of one or more CMS Unit Reference (e.g. after repair of a fault or re-establishment of communications) shall all be provided in an incremental contiguous file version number for the date to which the events pertain. Typically, subsequent file versions are incremental updates containing only that data for CMS Unit References for which data has changed or was not previously reported. On occasions it may be necessary for a subsequent file version to be a complete refresh of the previously reported CMS Unit Reference event data for that date. The approach to be used, and the way in which updated information should be identified, shall be as agreed between the CMS operator and the MA.

- (d) The MA system shall calculate, by an approved method, the import kWh ~~and import kVArh~~ consumption in each half hour period in UTC for each MSID using the switching times and power level information reported in the operational event log.
- (e) The MA system shall generate an exception list detailing any CMS Unit References reported in the control file but which are not contained in the operational event log. The exception list shall be produced for each day of the report for which any CMS Unit References are missing, and shall be provided