

Change Proposal – BSCP40/02

CP No: CP1303

*Version No: v1.0
(mandatory by BSCCo)*

Title *(mandatory by originator)* Requirement on Half Hourly Data Collectors to Estimate Missing Reactive Power Demand Values

Description of Problem/Issue *(mandatory by originator)*

The SVG established the Absent and Erroneous Reactive Power Data Working Group ([SVG97/04](#)). The Group were tasked to investigate problems that arise when metered data provided to LDSOs by Half Hourly Data Collectors (HHDCs) does not include all of the Reactive Power data required by the LDSO (for purposes of DUoS charging and network management).

When LDSOs do not receive Reactive Power data, they are forced to make their own estimates of the missing data, for the purpose of calculating kVA Demand and Reactive Power charges. This presents difficulties for Suppliers, who potentially find it difficult to pass on to customers charges based on estimated data, particularly where the estimation method used does not match the standard used for Active Power registers. The issue is made more difficult – particularly for customer groups with sites spread across the country – by the inconsistent approaches to estimation adopted by different LDSOs.

For Active Power data, there are well-established methods of mitigating the impact of missing data by using historical data to estimate the values for missing Settlement Periods. However, there are currently no obligations on HHDCs to use similar methods for Reactive Power data. In practice a variety of approaches are taken: some HHDCs estimate missing values if requested to do so by Suppliers, while others do not estimate at all.

Proposed Solution *(mandatory by originator)*

In order to mitigate the impact of missing Reactive Power data, it is proposed that Half Hourly Data Collectors should be obliged to provide estimates of missing Reactive Power period values where data is available to do so.

In particular, the Working Group believes that the estimation methods described in sections 4.2.1(b) to 4.2.1(h) of BSCP502 are applicable to Reactive Power. It is therefore proposed that:

- HHDCs should be obliged to provide estimates of missing Reactive Power period values in those cases where it is possible to apply the estimation methods in 4.2.1(b) to 4.2.1(h);
- Estimation method (g) and (h) should be amended to include a requirement for HHDCs to use the **Default EAC** and **Default Period Profile Class Coefficients (DPPCCs)** provided in Market Domain Data (MDD) in conjunction with a **Default Power Factor** of 0.9 when determining missing Reactive Import Power values. Reactive Export Power values will not be estimated using the 0.9 power factor, in these instances the values will be entered as zero. This is because Reactive Export values for an import site are minimal and generally tend towards zero; and
- The method used to provide the estimates should be as specified in 4.2.1(b) to 4.2.1(h), or any variant of those methods that the HHDC may reasonably choose. (The reason for providing this flexibility is to allow HHDCs to use methods that take into account the nature of Reactive Power e.g. adjusting the estimates to take account of the corresponding Active Power values in

the same Settlement Period, where those are available. The methods outlined in 4.2.1(b) to (h) should therefore be seen as a minimum requirement).

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

Housekeeping Change:

In the last paragraph of section 4.2 in BSCP502 v18.0, there is a reference to Appendix 4.7. This should refer to Appendix 4.8, as CP1166 added a new paragraph which moved Appendix 4.7 to Appendix 4.8. We recommend that this change is included within this CP.

Justification for Change *(mandatory by originator)*

The estimation methods defined in section 4.2.1 of BSCP502 have a proven track record of mitigating the impact of missing Active Power data on settlement processes. Extending these methods to Reactive Power (where appropriate to do so) will reduce the impact of missing data on DUoS charging and network management functions, and hence bring benefits to Suppliers, LDSOs and customers.

To which section of the Code does the CP relate, and does the CP facilitate the current provisions of the Code? *(mandatory by originator)*

This CP facilitates the requirement in Section S2.3.1(h) of the BSC that Half Hourly Data Collectors provide “validated metered data and SVA Metering System reports to the relevant Supplier and the relevant Distribution System Operator”.

Estimated Implementation Costs *(mandatory by BSCCo)*

The estimated ELEXON implementation cost is 2 man days, which equates to £440

Configurable Items Affected by Proposed Solution(s) *(mandatory by originator)*

BSC Procedure BSCP502 (‘Half Hourly Data Collection for SVA Metering Systems Registered in SMRS’)

Impact on Core Industry Documents or System Operator-Transmission Owner Code *(mandatory by originator)*

None

Related Changes and/or Projects (*mandatory by BSCCo*)

This Change Proposal is one of a package of six recommended to SVG by the Working Group. The six related Change Proposals are:

- CP 1296, 'Mandatory Capability to Record Reactive Power Demand (kvar) Values in Code of Practice 5 (CoP5) Meters'
- CP 1297, 'Mandatory Capability to Record Reactive Power Demand (kvar) Values in Code of Practice 10 (CoP10) Meters'
- CP 1298, 'Requirement on MOAs to Configure Meters to Record Half Hourly Reactive Power Data (for Half Hourly Settled CT-Metered Customers)'
- CP 1299, 'Requirement on Half Hourly Data Collectors to Collect and Report Reactive Power Data (where the Meter is configured to record it)'
- CP 1302, 'Requirement on Half Hourly Data Collectors to Validate Reactive Power Demand Values'
- CP 1303, 'Requirement on Half Hourly Data Collectors to Estimate Reactive Power Demand Values'

Requested Implementation Date (*mandatory by originator*)

February 2010

Reason:

Next available release

Version History (*mandatory by BSCCo*)

V1.0 for Impact Assessment

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Attachments: Y

Attachment A: redline changes to BSCP502 V18.0 (4 Pages)