



BSC Codes of Practice and Smart Meters

Compliance with BSC Codes of Practice and Smart Metering

In June 2013 ELEXON raised [Issue 48 'SMETS & Codes of Practice \(CoPs\)'](#). The Issue 48 workgroup compared the requirements in [BSC Code of Practice 8, 9 and 10](#) with those in version 2.0 of the Smart Metering Equipment Technical Specifications (SMETS v2.0). The workgroup noted that the SMETS v2.0 refers to compliance with 'the wider statutory and regulatory framework applying to devices installed for the purpose of energy supply to premises'. The workgroup concluded that SMETS v2.0 Meters would need to meet any additional requirements of the BSC CoPs, where relevant.

Although the Issue 48 workgroup carried out the gap analysis with reference to SMETS2 meters, the group's conclusions apply equally to version 1.2 of the Smart Metering Equipment Technical Specifications (SMETS v1.2) and should also apply to subsequent versions.

This guidance sets out the requirements in the BSC CoPs that Suppliers will need to comply with, over and above those in the SMETS. In Feb 2017 CP1466¹ was implemented to clarify that SMETS compliant Meters exceed the requirements of CoP10 and that BSC approval of such meters is not required.

Non Half Hourly Metering Systems

Non Half Hourly (NHH) Meters should comply with [CoP8](#)², [CoP9](#)³ or [CoP10](#)⁴. All refer to the requirements in Schedule 7 of the Electricity Act 1989 in relation to the accuracy of data. SMETS Meters must also comply with these requirements and those of the Measuring Instruments (Active Electrical Energy Meters) Regulations 2006. The analysis carried out by the Issue 48 workgroup showed that SMETS Meters meet the requirements of [CoP9](#) for NHH whole current import/export metering (compliance with [CoP8](#) will no longer be relevant as SMETS Meters will record both import and export). The SMETS do not cover Current Transformer operated Meters, so these will need to comply with the relevant additional requirements in [CoP9](#) or [CoP10](#).

Half Hourly Metering Systems

In general, Meters that comply with the SMETS will also comply with the main requirements of [CoP10](#). In some cases, the SMETS requirements exceed those of [CoP10](#), for example the data storage requirements. SMETS Meters will not meet the 'Security Regime Requirements' in Section 5.6 of [CoP10](#) (i.e. the use of three levels of password to control access). However, the Smart Metering Key Infrastructure (SMKI) will provide a higher level of security. The BSC CoPs set out minimum requirements. By exceeding the security requirements in [CoP10](#), a SMETS Meter would be compliant with [CoP10](#).

To use SMETS Meters for Half Hourly (HH) Settlement, Suppliers will need to ensure that they meet the additional requirements listed in Table A to achieve [CoP10](#) compliance.

¹ Removing SMETS compliant Meters from the scope of BSCP601

² Code of Practice 8: Code of Practice for the Metering of Import Active Energy via Low Voltage Circuits for Non-Half Hourly Settlement Purposes

³ Code of Practice 9: Code of Practice 9: The Metering of Import and Export Active Energy via Low Voltage Circuits for Non-Half Hourly Settlement Purposes

⁴ Code of Practice 10: Metering of Energy via Low Voltage Circuits for Settlement Purposes

Table A

CoP10 Reference	Requirement	Comment
5.1 - 5.3	Current Transformers	The SMETS do not cover Current Transformer metering. The CoP10 requirements will apply.
5.4.1	Displays	<p>Although the SMETS Meter records Import kvarh and Export kvarh, there is no requirement to display these.</p> <p>Other display capabilities that the SMETS do not include are Maximum Demand (MD) kVA, Cumulative MD and number of MD resets. However, these are optional requirements, 'as specified by the Registrant'. It is unlikely that Suppliers will require these features for the significant majority of domestic and small non-domestic sub-100kW Metering Systems.</p>
5.5	Protocol Approval	Meters that are SMETS compliant do not require approval under BSCP601 'Metering Protocol Approval and Compliance Testing'.
5.5	Time Synchronisation	The responsibility will move from the HHDC to the Supplier/DCC and is part of the protocol approval process.
5.5	Separately fused supply for modems	There are requirements in the SMETS about the supply to Communications Hubs.
5.5.1	Data Storage	<p>There are no SMETS equivalents to the requirements that –</p> <ul style="list-style-type: none"> • 'the resolution of the Active Energy transferred into the demand registers shall be within $\pm 0.1\%$ (at full load) of the amount of Active Energy measured by the associated Meter'; • energy measured in a Demand Period but not stored in that Demand Period should be carried forward to the next Demand Period; • the clock and calendar can function for 20 days without an external supply.
5.5.2	Time Keeping	There are no SMETS requirements to maintain time keeping accuracy allowing for failures to communicate of 20 days.
5.5.3	Monitoring / Alarms	<p>There are no SMETS requirements for –</p> <ul style="list-style-type: none"> • battery monitoring • Demand Periods truncated or extended by a time synchronisation; • Metering equipment functionality errors.

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