

Redlined Code Of Practice (CoP) 10 for CP1450 'Security Requirements for CoP10 Metering Equipment'.

This CP proposes changes to CoP10 sections 2.0 and 5.6.

We have redlined these changes against Version 8.0 (conformed version for November 2015 Release).

In addition, we have included some housekeeping changes to sections 1.0 and 3.8.

1. SCOPE

This Code of Practice states the practices that shall be employed, and the facilities that shall be provided for the measurement and recording of the quantities required for Settlement purposes.

Additional features may be incorporated within or associated with the Metering Equipment provided but these must not interfere with or put at risk the operation of the Settlement process.

This Code of Practice specifically applies to metering of energy via low voltage circuits for Settlement purposes. Metering Equipment compliant with this Code of Practice can be traded either Half Hourly where the Metering Systems are not 100kW Metering Systems (Measurement Class E, F or G) or Non-Half Hourly.

It derives force from the Code, and in particular the metering provisions (Section L), to which reference should be made. It should also be read in conjunction with the relevant BSC Procedures.

Metering Equipment that meets the requirements of this Code of Practice is also applicable where the Registrant is required by its Supply Licence (and as referenced in Section L 3.2.6) to install Metering Equipment that is capable of providing measured electricity consumption data for multiple periods (at least half hourly) and providing the Registrant with remote access to such data.

Outstations shall, as a minimum, be capable of interrogation by the Settlement instation. In addition, Outstations may deliver metering data to the Settlement instation providing that the requirements of this Code of Practice are met.

This Code of Practice does not contain the calibration, testing and commissioning requirements for Metering Equipment used for Settlement purposes. These requirements are detailed in Code of Practice Four - "Code of Practice for Calibration, Testing and Commissioning Requirements for Metering Equipment for Settlement Purposes".

Meters and Outstations referred to in this Code of Practice shall only achieve successful compliance in respect of any testing detailed in this Code of Practice if the requirements set out in accordance with BSCP601 are also observed and successfully completed or the Registrant has been granted a valid Metering Dispensation covering any departure from the requirements as detailed in this Code of Practice.

Dispensations from the requirements of this Code of Practice may be sought in accordance with the Code and BSCP32 'Metering Dispensations'.

[Housekeeping] Generic Metering Dispensations applicable to this Code of Practice are located on the BSC website (~~ELEXON Website~~[ELEXON Website](#)).

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

2. REFERENCES

The following documents are referred to in the text:-

Balancing and Settlement Code	Section X; Annex X-1 and Section L and BSC Procedures
Code of Practice Four	Code of Practice for Calibration, Testing and Commissioning Requirements for Metering Equipment for Settlement Purposes
Electricity Act 1989	Schedule 7, as amended
IEC 62053-23	Electricity metering equipment (a.c.). Particular requirements. Static meters for reactive energy (classes 2 and 3)
IEC62056-21	Data Exchange for Meter Reading, Tariff and Load Control. Direct Local Exchange.
Meter Operation Code of Practice Agreement	Agreement between Meter Operators and Distribution Businesses governing arrangements for safety and technical competence (www.mocopa.org.uk)
IEC Standard 185	Current Transformers
<u>Smart Metering Equipment Technical Specifications</u>	<u>As defined in Section X Annex X-1 of the BSC</u>
Statutory Instruments 2006 No. 1679	The Measuring Instruments (Active Electrical Energy Meters) Regulations 2006
Standard Frequency and Time Signal Emission	International Telecommunication Union - RTF.460 (ISBN92-61-05311-4)

3. DEFINITIONS AND INTERPRETATIONS

Save as otherwise expressly provided herein, words and expressions used in this Code of Practice shall have the meanings attributed to them in the Code and are included for the purpose of clarification.

Note: * indicates definitions in the Code.

Note: † indicates definitions which supplement or complement those in the Code.

Note: ‡ indicates definitions specific to this Code of Practice

3.1 Active Energy *

Active Energy means the electrical energy produced, flowing or supplied by an electric circuit during a time interval, being the integral with respect to time of the instantaneous Active Power, measured in units of watt-hours or standard multiples thereof.

3.2 Active Power *

Active Power means the product of voltage and the in-phase component of alternating current measured in units of watts and standard multiples thereof, that is:-

$$1,000 \text{ Watts} = 1 \text{ kW}$$

$$1,000 \text{ kW} = 1 \text{ MW}$$

3.3 Apparent Energy ‡

Apparent Energy means the integral with respect to time of the Apparent Power.

3.4 Apparent Power ‡

Apparent Power means the product of voltage and current measured in units of volt-amperes and standard multiples thereof, that is:-

$$1,000 \text{ VA} = 1 \text{ kVA}$$

$$1,000 \text{ kVA} = 1 \text{ MVA}$$

3.5 Defined Metering Point ‡

Defined Metering Point means the physical location at which the overall accuracy requirements as stated in this Code of Practice are to be met. The Defined Metering Points are identified in Appendix A.

3.6 Demand Period ‡

Demand Period means the period over which Active Energy, Reactive Energy or Apparent Energy are integrated to produce stored energy values. For Settlement purposes, unless the context requires otherwise, each Demand Period shall be of 30 minutes duration, one of which shall finish at 24:00 hours.

3.7 Demand Values ‡

Demand Values means, expressed in kW, kVAr or kVA, twice the value of kWh, kVARh or kVAh recorded during any Demand Period. The Demand Values are half hour demands and these are identified by the time of the end of the Demand Period.

[Housekeeping] 3.8 "electricity" *

"electricity" means Active Energy and Reactive Energy.

5.6 Security Regime

Unauthorised access to the data in the Metering Equipment shall be prevented. It should be possible, where reasonably practicable, to identify when unauthorised access has been attempted.

Meters that comply with the Smart Metering Technical Specifications are deemed to exceed the minimum security requirements of this CoP or shall provide Aa security regime allowing for at least the levels of access as defined below:-

(i) Level 1 for:-

Read only of the following metering data, which shall be transferable on request during the interrogation process:-

- a) Outstation ID;
- b) Demand Values as defined in clause 4.1.2;
- c) cumulative measured quantities as defined in clause 4.1.1;
- d) Maximum Demand (MD) for kW or kVA per programmable charging period i.e. monthly, statistical review period;
- e) multi-rate cumulative Active Energy as specified by the Registrant;
- f) the CT ratio, where appropriate;
- g) alarm indications; and
- h) Outstation time and date.

(ii) Level 2 for:-

- a) corrections to the time and/or date; and
- b) resetting of the MD.

(iii) Level 3 for:-

Programming of :-

- a) the Displays and Facilities as defined in clause 5.4;
- b) the CT ratio, as appropriate;
- c) the access for levels 1 and 2; and
- d) programming of the schedule for automated transfer of Level 1 metering data.

In addition, it shall be possible to read additional information within the Metering Equipment to enable the programmed information to be confirmed.

In addition to the functions specified for each level it shall be feasible to undertake the functions at the preceding level(s). e.g. at level 3 it shall also be possible to carry out the functions specified at levels 1 and 2.