



**Redlined Code of Practice One text for CP1508 'Updating the references to the British and International Standards within the relevant Codes of Practice and Balancing and Settlement Procedure'**

This Change Proposal (CP) proposes changes to Sections 2, 5.1, 5.3 and 5.6.1. We have redlined these changes against Version 12.0.

**There is no impact on any other part of this document for this CP.**

Amend Section 2 as follows:

## 2. REFERENCES

The following documents are referred to in the text<sup>2</sup>:-

BS EN/IEC 62053-22	Electricity metering equipment (a.c.). Particular requirements. Static meters for active energy (classes 0.2 S and 0.5 S)
BS EN/IEC 62053-23	Electricity metering equipment (a.c.). Particular requirements. Static meters for reactive energy (classes 2 and 3)
BS EN/IEC 62056-21	Electricity Metering. Data exchange for meter reading, tariff and load control. Direct local data exchange
BS EN/IEC <del>60044-3</del> 61869-4	Instrument transformers. Combined transformers
<del>BS EN/IEC 60044-1</del> 61869-2	Instrument transformers. Current transformers
<del>BS EN/IEC 60044-2</del> 61869-3	Instrument transformers. Inductive voltage transformers
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
BSC Procedures	BSCP06, BSCP32, BSCP601
Electricity Act 1989	Schedule 7 as amended by Schedule 1 to the Competition and Services (Utilities) Act 1992.

Amend Section 5.1 as follows:

### 5.1 Measurement Transformers

All measurement transformers shall be of a wound construction.

For each circuit current transformers (CT) and voltage transformers (VT) shall meet the requirements set out in clauses 5.1.1 and 5.1.2.

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<sup>2</sup> Metering Equipment should be tested and stamped to the latest iteration of the applicable standard named in this document at the time of initial registration.

Additionally, where a combined unit measurement transformer (VT & CT) is provided the 'Tests for Accuracy' as covered in ~~clause 8 of BS EN/IEC 60044-361869-4~~ covering mutual influence effects shall be met.

For Metering Systems that represent low burdens on measurement transformers, consideration shall be given as to whether that operating burden is within the operating range of the measurement transformers. In such cases it may be necessary to add additional burden.

Guidance for the use of multi core cables is provided in Appendix E.

#### 5.1.1 Current Transformers

Two sets of current transformers in accordance with ~~BS EN/IEC 60044-161869-2~~ and with a minimum standard of accuracy class 0.2S (irrespective of the secondary current rating of the current transformers) shall be provided.

The current transformers supplying the main Meters shall be dedicated to that purpose.

The current transformers supplying the check Meters may be used for other purposes provided the overall accuracy requirements in paragraph 4.3.1 are met and evidence of the value of the additional burden is available for inspection by the Panel or Technical Assurance Agent. The additional burden shall not be modified without prior notification to the Panel, and the evidence of the value of the modified additional burden shall be available for inspection by the Panel or Technical Assurance Agent.

CT test certificates showing errors at the overall working burden or at burdens which enable the working burden errors to be calculated shall be available for inspection by the Panel or Technical Assurance Agent.

The total burden on each current transformer shall not exceed the rated burden of such CT.

#### 5.1.2 Voltage Transformers

Two voltage transformers or one voltage transformer with two or more secondary winding sets in accordance with ~~BS EN/IEC 60044-261869-3~~ and with a minimum standard of accuracy class 0.2 shall be provided.

The VT secondary winding supplying the main Meters shall be dedicated to that purpose.

The VT secondary winding supplying the check Meters may be used for other purposes provided the overall accuracy requirements in clause 4.3.1 are met and evidence of the value of the additional burden is available for inspection by the Panel or Technical Assurance Agent. The additional burden shall not be modified without prior notification to the Panel, and evidence of the value of the modified additional burden shall be available for inspection by the Panel or Technical Assurance Agent.

A VT test certificate(s) showing errors at the overall working burden(s) or at burdens which enable the working burden errors to be calculated shall be available for inspection by the Panel or Technical Assurance Agent.

The total burden on each secondary winding of a VT shall not exceed the rated burden of such secondary winding.

Separately fused VT supplies shall be provided for each of the following:-

- (a) the main Meter
- (b) the check Meter
- (c) any additional burden

Such fuses shall be located as close as practicable to the VT.

*Amend Section 5.3 as follows:*

### **5.3 Meters**

The quantities defined in clause 4.1.1 shall be measured by both main and check Meters.

Active Energy Meters shall meet the requirements of BS EN/IEC 62053-22 Class 0.2S.

All Meters shall be set to the actual primary and secondary ratings of the measurement transformers and the actual ratios displayed on the display or nameplate of the Meter.

Active Energy Meters shall be configured such that the number of measuring elements is equal to or one less than the number of primary system conductors. These include the neutral conductor, and/or the earth conductor where system configurations enable the flow of zero sequence energy.

Reactive Energy Meters shall meet the Class 2.0 requirements of BS EN/IEC 62053-23.

All Meters shall be labelled or otherwise be readily identifiable in accordance with Appendix B.

All Meters shall include a non-volatile Meter Register of cumulative energy for each measured quantity. The Meter Register(s) shall not roll-over more than once within the normal Meter reading cycle.

Meters which provide data to separate Outstations shall for this purpose provide two outputs per measured quantity.

For Meters using electronic displays due account shall be taken of the obligations of the Central Data Collection Agent (CDCA) or other Data Collectors to obtain Meter readings.

Fusing shall be placed as close as practicable to the VT. In addition, means of isolation shall be provided locally for each Meter, any additional burden, and their associated test facilities in accordance with Appendix C.

*Amend Section 5.6.1 as follows:*

5.6.1 Local Interrogation

An interrogation port shall be provided for each Outstation which preferably shall be an opto port to BS EN/IEC 62056-21, and with a serial protocol such as BS EN/IEC 62056-21, for the following purposes:-

- (i) Commissioning, maintenance and fault finding;
- (ii) Transfer of metering data and alarms; and
- (iii) Time setting.