**Redlined Code of Practice Four 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 3, 5.1.2.1, 5.3.2 and 6. We have redlined these changes against Version 10.0.

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

*Amend Section 3 as follows:*

## 3. REFERENCES

The following documents should also be referred to when considering this CoP4[6]:-

- Balancing and Settlement Code and in particular Section X; Annex X-1 and Section L as well as any and all applicable BSC Procedures
- United Kingdom Accreditation Service (UKAS) Directive M3003
- Electricity Act 1989 and in particular Schedule 7
- BS EN ISO 9001~~: 2000~~: Quality management systems – Requirements
- BS EN ISO/IEC 17025~~: 2005~~: General requirements for the competence of testing and calibration laboratories
- BS EN/IEC ~~60044-1: 1999~~61869-2:Instrument Transformers – Part 1 Current transformers
- BS EN/IEC ~~60044-2: 1999~~61869-3: Instrument Transformers – Part 2 Inductive voltage transformers
- BS EN/IEC ~~60044-3: 2003~~61869-4: Instrument Transformers – Part 3 Instrument transformers. Combined transformers
- BS EN/IEC 62053-11~~: 2003~~: Electromechanical Meters for active energy (Classes 0.5, 1 and 2)
- BS EN/IEC 62053-21~~: 2003~~: Static Meters for active energy (Classes 1 and 2)
- BS EN/IEC 62053-22~~: 2003~~: Static Meters for active energy (Classes 0.2S and 0.5S)
- BS EN/IEC 62053-23~~: 2003~~: Static Meters for reactive energy (Classes 2 and 3)
- Statutory Instruments 1998 No.1566 The Meters (Certification) Regulations 1998
- Statutory Instruments 2006 No.~~16791~~1153. Weights and Measures. The Measuring Instruments (Active Electrical Energy Meters) Regulations 2006

[6] 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.

*Amend Section 5.1.2.1 as follows:*

*5.1.2.1 Type A Calibration*

A Type A Calibration shall be carried out to the relevant product standard with tests at the load points specified in Tables B1 and B2 of Appendix B.

In most cases it is the manufacturer who will carry out Type A Calibration and deliver the Meter with a Certificate indicating conformity with the accuracy requirements appropriate to the Meter's Class (that is, according to the relevant product standard BS EN/IEC 62053-22 (Active static Meters of Classes 0.2S and 0.5S), 62053-11 (Active electromechanical Meters of Classes 0.5, 1 and 2), 62053-21 (Active static Meters of Classes 1 and 2), or 62053-23 (Reactive static Meters of Classes 2 and 3)). Such Certificates shall for the purposes of this CoP4 be referred to as a Type A Calibration Certificate.

A Type A Calibration will be conducted using the Meter's metrological test output. However, for at least one load point, it shall also be confirmed that the physical display and the pulse output, where used for Settlement purposes, are registering to the required accuracy, i.e. all outputs fitted provide the same measurement result.

The Type A Calibration Certificate shows the tests conducted and the results of those tests as given in Appendix B. Such tests will be performed either:

- On Meters that have been fully configured for use, including any Compensation to correct the Meter registration for external measurement errors and plant losses; or
- With a Blank Calibrated Meter, with the intention that a Compensation characteristic will subsequently be applied.

*Amend Section 5.3.2 as follows:*

5.3.2 Initial Calibration

Certificates produced for new measurement transformers[7] must be produced using verifiable Standards.

Measurement transformers shall be calibrated prior to initial installation. Evidence thereof will be made available to the BSCCo on request.

For multi-ratio current transformers and voltage transformers, the transformer shall be calibrated, as a minimum, for the ratio that is to be used for Settlement purposes.

The Calibration is required to demonstrate compliance with the BS EN/IEC ~~60044-1~~61869-2 and/or (as appropriate) BS EN/IEC ~~60044-2~~61869-3 and/or (as appropriate) BS EN/IEC ~~60044-3~~61869-4 accuracy and measurement range requirements, as appropriate for the measurement transformer's class index.

[7] Ordered after Issue 6, Version 5.0 of CoP4 is effective.

For Certificates produced for measurement transformers ordered after the effective date of Issue 6, Version 5.0 of CoP4, the accuracy test results shall include a measurement uncertainty evaluation which shall be determined to a confidence level of 95% or greater in accordance with the UKAS Directive M3003. In the case of measurement transformers for Code of Practice 1 and 2 applications the accuracy test result errors including measurement uncertainty shall not exceed 1.5 times the permitted errors in the relevant specifications involved (i.e. BS EN/IEC ~~60044-1~~61869-2, BS EN/IEC ~~60044-2~~61869-3 and BS EN/IEC ~~60044-3~~61869-4).

*Amend Section 6 as follows:*

## 6 Non Half Hourly Metering Systems[8] and CoP10 HH Metering Systems

### 6.1 Commissioning

The purpose of Commissioning is to ensure that the energy flowing across a Defined Metering Point is accurately recorded by the associated Metering System. The following tests and checks are provided for Commissioning engineers to help ensure this (the detail involved in the tests and checks carried out will largely depend on the quantities of energy measured by the associated Metering System).

Commissioning shall be performed on all new Metering Equipment which is to provide metering data for Settlement.

### 6.2 Commissioning Tests

Commissioning tests on site shall be performed to confirm and record where appropriate the following:

- That the current transformers are of the correct ratio and polarity and correctly located to record the required power flow;
- For multiphase installations the relationships between voltages and currents are correct and that phase rotation is standard at the Meter terminals;
- The burdens on any current transformers are within the correct limits;
- The Meters are set to the same current transformer ratios as the installed current transformers;
- The output of the Metering System correctly records the energy in the primary system at the Defined Metering Point.

Where individual items of Metering Equipment are to be replaced then only those items are required to be Commissioned. For clarification, Metering Systems in their entirety need not be re-Commissioned when items are replaced within that system.

[8] This section is provided to cover the requirements for Commissioning and in-service testing of all non-half hourly Metering Equipment, and HH Metering Equipment where the (only) metering used for Settlement purposes is CoP 10. In respect of in-service testing of Meters certified under the Electricity Act, the requirements of the national sample survey will apply until 2016. The requirements for in-service testing of MID approved (under Statutory Instruments 2006 No.~~1679~~1153) Meters will be populated to this section once they are agreed.