Change Proposal – BSCP40/02	CP No: 1224 *Version No: 1.0*

Title

The Review of Code of Practice 4

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

Code of Practice (CoP) 4 'Code of Practice for the Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlements Purposes' sets out the requirements for ensuring that Metering Equipment is installed to accurately measure energy transfers throughout the Metering System's lifetime at the Defined Metering Points as set out in the relevant metering Codes of Practice (e.g. CoP1, 2, 3 and 5).

In 2005 members of the Supplier Agent Forum (SAF) requested a review of the current version of CoP4 (Issue 5 v4.0) largely on the grounds that CoP4 has remained substantively unchanged since 1995 and that metering and other technologies have advanced since then. Additionally the SAF considered the following issues required reviewing, where CoP4:

- Metering Standards(BS EN standards) referenced in CoP4 are out of date;
- Contains out of date requirements for the calibration intervals of the equipment used for calibrating Meters;
- Is open to interpretation about the requirements for the periodic calibration of Meters;
- Is unclear about what test points are necessary for calibrating Meters;
- Does not reflect current methods for producing Meter calibration; and
- Lacks detail on what information should appear on test certificates

CoP4 Issue 5 v4.0 also creates issues for the Technical Assurance of Metering processes due to the lack of clarity.

In March 2006, having established that the Measuring Instrument Directive (MID) regulations, as implemented by Statutory Instrument 2006 No.1679 'The Measuring Instruments (Active Electrical Energy Meters) Regulations 2006', do not apply to the 'above 100kW' market (i.e. CoPs 1, 2, 3, and 5), ELEXON requested that the Supplier Volume Allocation Group (SVG) and the Imbalance Settlement Group (ISG) establish the CoP4 Review Group to identify any concerns and recommend changes to address those concerns. Both groups agreed to the request.

The Review Group first met in May 2006 and after a series of meetings during 2006 created a new draft version of CoP4. Following those meetings ELEXON conducted an internal walkthrough to improve the document's readability, consistency and alignment with the Balancing and Settlement Code. The resulting version of CoP4 (Issue 5 v4.1) was issued for industry impact assessment (as part of Change Proposal Circular CPC00603) on 30 March 2007 as an attachment to DCP0005 'Review of Code of Practice 4' v1.0.

The industry impact assessment provided many detailed comments in response. Generally, the industry believed that the draft Code of Practice 4 (Issue 5 v4.1) was not yet fit for purpose and more work was needed to address the remaining issues. ELEXON created a log of the issues raised and invited interested parties to two further meetings in June and August 2007 in which further

substantive work was carried out on the draft CoP4 (Issue 5 v4.1). The meetings were supported by members of the expert group and those that provided responses to CPC000603. This work resulted in further drafts of CoP4 culminating with CoP4 Issue 5 v 4.5 and this was issued for impact assessment as part of CPC00615 in September 2007 as an attachment to DCP0005 'Review of Code of Practice 4' v2.0.

This Change Proposal provides the final draft of CoP4 (Issue 6 v 5.0) as an attachment (Attachment A) incorporating the changes proposed by respondents during that impact assessment.

Proposed Solution ***(****mandatory by originator)*

The major changes between the current CoP4 (Issue 5 v4.0) and the proposed solution (CoP4 Issue 6 v 5.0 attached) are highlighted below:

1 Scope (Page 7)
The scope has been changed to specifically reference non half hourly Metering Systems.

3 References (Page 9)
The references section has been updated with the latest metering standards, relevant Statutory Instruments, quality management standard and competence of testing and calibration laboratories standard.

4 Definitions and Interpretations (Page 10)
New definitions have been specified for 'Adjustment', 'Commissioning', 'Compensation', 'Meter Type', 'Reference Conditions' and 'Traceable'.

5 Half Hourly Metering Systems (Page 13)
The sections in the document have been re-ordered to produce a more logical format. Two separate sections have been created for Metering Systems; one for half hourly and another for non half hourly Metering Systems. Within each of these sections the requirements for Meters, measurement transformers, records and commissioning, relevant to the type of Metering System, are specified.

5.1.1 Types of Calibration (Page 13)
Three Types of calibration have now been specified, a Type A (initial calibration), a Type B (a calibration to ensure continued accuracy) and a Type C (similar to a Type A but not necessarily under reference conditions).

A requirement for a quality assurance scheme covering the process of compensating blank calibrated Meters by means of software has been added.

5.1.2.5 & 6 (Page 15)
Provision is made for the transition of periodic Meter calibrations from the current CoP4 to the proposed new requirements. These provisions define, for existing Meter calibrations, the criteria for transition to the new scheme proposed in Appendix A.

5.1.4 Records (Pages 16 and 17)
The requirements for certificates for Meters have been clarified. Certificates from the effective date of CoP4 Issue 6 v5.0 must identify the serial number and Meter Types calibrated, the name of the

testing body, the location of the calibrations, and the date on which the calibrations were concluded. In addition the results of such calibrations should include measurement uncertainty values.

The requirement for the retention of calibration certificates has been defined to state that in respect of CoP1 and 2, all certificates must be kept for the life of the Meter and for CoP 3, 5, 6 and 7 (for the purpose of CoP4) only the latest set of calibration records are required.

5.1.4.2 Annual Calibration Report (Page 17)
Meter Operator Agents are now required to submit an annual report detailing the number of Meters calibrated (by Type of calibration).

5.1.4.4 Quality Assurance (Pages 17 and 18)
Changes have been made such that a laboratory or test house providing calibration services in accordance with CoP4 need not specifically hold a BS EN ISO 9001 accreditation where other methods of obtaining the required level of assurance are permissible.

5.2 Sample Calibrations (Page 18)
Meter Operator Agents are now required to carry out sample calibrations (Type B calibrations) on new Meter Types as part of their routine calibrations and provide a report to BSCCo on such calibrations.

5.3.3 Records (Page 19)
Certificates providing evidence of calibrations for measurement transformers are required to indicate the measurement uncertainties under which they are performed. This change allows the required statement to be a single figure covering all test points or individual figures for each test point.

5 Non Half Hourly Metering Systems (Page 23)
This section has been populated with requirements for the commissioning of NHH Metering Systems.

Appendix A Calibration Period Table (Page 28)
Appendix A provides tables for the periodic calibrations to be conducted.

Appendix B Test Points (Page 30)
Appendix B specifies the test points required during calibration.

Appendix E Annual Report Format (Page 38)
Appendix E contains the format of the annual report required to be sent to ELEXON detailing calibration data.

Justification for Change *(mandatory by originator)*

CoP4 has not been reviewed or changed substantively for over 10 years. Since that time metering and associated technologies have advanced sufficiently to warrant a review of their calibration periods. The requirements of the new version of CoP4 will better reflect the current market/environment and provide a more cost reflective and robust balance between monitoring Metering System accuracy and the impact that inaccuracies may have on Settlement.

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

Section L 'Metering'

This CP better facilitates Section L by providing more detail and clarity in the requirements for CoP4

Estimated Implementation Costs *(mandatory by BSCCo)*
£1,650

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

Code of Practice 4 Issue 5 v4.0

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

None identified

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

None identified

Requested Implementation Date ***(mandatory by originator)***

June 2008 Release

Reason:

Impact assessment responses during the Draft CP stage suggest participants are able to make the necessary process and system changes by this time at the earliest.

Version History ***(mandatory by BSCCo)***

This CP1224 is the progression of DCP0005 v 2.0 'Review of Code of Practice 4'.

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Attachments: Yes

CP1224 Attachment A - Draft Code of Practice 4 Issue 6 version 5.0 (37 Pages)