

**Change Proposal – BSCP40/02**

CP No: 1351

*Version No: v1.0  
(mandatory by BSCCo)*

**Title** *(mandatory by originator)* Improving Half Hourly Metering Equipment commissioning and storage of associated commissioning data

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

The current arrangements for the calibration, testing and commissioning of Half Hourly (HH) Metering Equipment are designed to ensure that metering data used for Settlement purposes is accurate for new sites and remains accurate for sites where there are changes to Metering Equipment. The proposer believes that minor improvements could be made to Code of Practice Four (CoP4), ‘The Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlement Purposes’, to:

- Clarify the existing arrangements;
- Make commissioning of HH Metering Systems more robust by implementing minor changes to the scope;
- Reinforce robust commissioning and records maintenance that would increase the accuracy of Settlement data, reduce errors and reduce the need for corrections and adjustments, thereby increasing efficiency;
- Improve the storage and retrieval arrangements for commissioning data; and
- Create an opportunity to establish a monitoring feed-back loop to help ensure that Metering Equipment at new sites has been properly commissioned.

Under current arrangements there are weaknesses that may result in new sites, or sites where there has been a change in the Metering Equipment, having inaccurate meters. The current arrangements do not ensure end-to-end Metering Equipment checks take place following a physical change resulting, for example, in mismatched Meter and current transformer ratios. One of the key conclusions of the Technical Assurance (TA) check findings [reported to the Performance Assurance Board](#) (PAB) in April is that Meter Operator Agents (MOAs) are operating incomplete commissioning procedures. For HH sites, and especially larger HH sites, the resulting errors can be significant and it is clearly important to take all reasonable steps to ensure accurate data is used in Settlement.

It is proposed to make a number of changes to CoP4 to make on site arrangements more robust and improve the arrangements supporting Metering Equipment checks by the Technical Assurance Agent (TAA).

The Technical Assurance of Metering Expert Group (TAMEG) [report to the PAB](#), dated 28 April, concluded that the potential for inaccuracy in this area is significant, and the TAMEG believes there are fundamental concerns with commissioning of HH Metering Equipment. As stated in the report, ELEXON agrees with the TAMEG’s acknowledgement that there are issues with commissioning which have the potential to conceal significant problems affecting Settlement and remains concerned that the issues of commissioning, in particular, and records in general, remain to some extent an uncontrolled risk.

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

Part of the proposed solution is to make appropriate changes to CoP4 to support improved Metering System accuracy and audit-ability, specifically:

- Clause 5.5, 'Commissioning' - Change the wording of clause 5.5 to make it clear that new Metering Equipment means Metering Equipment on new sites and changes to Metering Equipment on existing sites;
- Clause 5.5.2, 'Commissioning Tests' - Change the scope so that where any item of Metering Equipment is changed a full end-to-end Commissioning is carried out on the total Metering Equipment by the Meter Operator Agent on behalf of the Supplier, i.e. not just the relevant item;
- Clause 5.5.4. 'Records' - Change wording to clarify applicability to changes to existing Metering Equipment and require that in all cases Commissioning records are retained by the MOA and provided to BSCCo;
- Clause 5.6, 'Proving' - Add words to require a proving test for all new Metering Systems and where a change is made; and
- Clause 5.5.4, 'Records' - Add a process which requires BSCCo to receive, process and store commissioning records. In addition, require BSCCo to, at its discretion, monitor and periodically report to relevant Panel Committees in respect of un-received or incomplete commissioning records, including in particular un-received commissioning records in respect of newly registered sites (MPANS) in a given period.

In addition to these specific changes to CoP4, consequential changes would be made to BSCP502, 'Half Hourly Data Collection for SVA Metering Systems Registered in SMRS', and BSCP514, 'SVA Meter Operations for Metering Systems Registered in SMRS', to reflect the changes to CoP4.

The means and subject of BSCCo's monitoring would be at the discretion of BSCCo. It is anticipated BSCCo would use the most efficient and effective methods available, for instance out-sourcing (e.g. to the TAA) if appropriate, and would target the areas with the greatest associated materiality, for instance larger HH sites (i.e. mandatory HH Metering Systems). It is also envisaged that BSCCo may discuss planned monitoring activities with the relevant Panel Committee(s).

Confirming that commissioning of the whole of the Metering System applies where an item in the Metering Equipment is changed or reconnected should not add significant costs as the MOA is already required to attend site to carry out physical work and to carry out commissioning of any new equipment. The solution would be mandatory only for new sites and sites with metering that is subject to significant work.

**Justification for Change** *(mandatory by originator)*

The proposed change is designed to reduce Settlement errors resulting from inaccurate metering equipment, which is in line with the Applicable BSC Objectives. Removing Settlement errors would promote efficiency in the BSC arrangements (Objective (d)). Metering errors might result in cross subsidies between Parties that might result from metering errors; removing such cross subsidies would facilitate effective competition between Parties (Objective (c)).

Much of the proposal centres on clarifying the existing arrangements and responsibilities for the commissioning of Metering Equipment, so the impact on parties that are currently fulfilling existing obligations should be minimal.

The proposed changes are intended to;

- Clarify and improve the arrangements for ensuring that accurate energy flow data enters settlements for new sites;
- Improve arrangements to ensure that such accuracy is maintained for sites where changes have been made to Metering Equipment; and
- Improve the storage of commissioning records in support of the TAA by retaining a copy centrally by BSCCo.

Evidence from recent checking activity has highlighted Metering Equipment that was recording incorrectly, including on some newer sites. Traditional end-to-end meter commissioning by the meter operator on behalf of the Supplier was designed to detect incorrect Metering Equipment and this suggests that current arrangements for end-to-end Metering Equipment checks are insufficient to ensure accuracy following all events.

In addition, recent TAA checks may have been hampered by a lack of available commissioning records.

Furthermore, the central storage of commissioning records would improve efficiency of the TAA and create the opportunity for a periodic report to check that Metering Equipment on newly connected sites has been commissioned.

### **Materiality**

There are currently around 117,400 HH Metering Systems in the SVA market which accounts for approximately 155TWh per year (around half of the total Supplier market) and a further 800 in CVA representing 310TWh per year. Each year around 2000 new HH Metering Systems are registered in Settlement. Given the size of the HH market and scope for metering errors to have a significant impact on traded volumes, we believe the materiality provides clear supporting justification for our CP.

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

This CP relates to Section L, 'Metering', and the proposed changes to the identified Code Subsidiary Documents would facilitate the requirements of Section L. The relevant sections of Section L are:

- 2.1, 'Registrant responsibilities';
- 2.4, 'Meter Technical Details';
- 2.5, 'Information and records';
- 3.1, 'General Obligations'; and
- 3.6, 'Commissioning and maintenance of Metering Equipment'.

The CP would also help the Registrant provide information and records to the TAA in accordance with Section L (i.e. 7.2, 'Provision of information', specifically 7.2.3).

**Estimated Implementation Costs** *(mandatory by BSCCo)*

£1200 (equating to approximately 5 Man Days implementation effort).

ELEXON would make the necessary document changes, update internal procedures and put in place processes to enable us to carry out the monitoring proposed by this CP. The effort of carrying out the monitoring and reporting would be absorbed into business as usual operating costs.

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

- Code of Practice Four, ‘The Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlement Purposes’;
- BSCP502, ‘Half Hourly Data Collection for SVA Metering Systems Registered in SMRS’; and
- BSCP514, ‘SVA Meter Operations for Metering Systems Registered in SMRS’.

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

None identified.

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

TAMEG Workshop July 2011.

Though not directly related to this CP, both Modification P272 ‘Mandatory Half Hourly Settlement for Profile Classes 5-8’ (currently undergoing assessment) and the introduction of smart metering have the potential to increase the number of HH Metering Systems.

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

23 February 2012 (February 2012 BSC Release).

**Reason:**

Next available BSC Release.

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

First version for industry impact assessment.

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***Date.....5 August 2011***

Attachments: Y (If Yes, No. of Pages attached: 11)

**Code of Practice 4\_CP1351\_redlined\_v0.3 (3 pages)**

**BSCP502\_CP1351\_redlined\_v0.3 (2 pages)**

**BSCP514\_CP1351\_redlined\_v0.1 (6 pages)**