

4.3 CP Form

Change Proposal – BSCP40/02	CP No: CP1505 <i>Version No: 1.0</i> <i>(mandatory by BSCCo)</i>
Title (mandatory by originator) Allowing ‘off site’ Commissioning of current transformers preinstalled in cut outs or switchgear at manufacture for use in Low Voltage ¹ (LV) installations.	
Description of Problem/Issue (mandatory by originator) Code of Practice 4 (CoP4) ² details the requirements for commissioning Metering Equipment ³ for settlement purposes. Sections 5.5.2 and 6.2 (Half Hourly (HH) and Non Half Hourly (NHH) respectively) details the required output of the commissioning tests and state that these tests should be conducted ‘on site’ <i>‘Commissioning test on site shall be performed to confirm and record’</i> Currently this means that every Commissioning test must be carried out ‘on site’ and with the Metering Equipment in situ to be compliant to the requirements detailed in CoP4. For certain Metering Equipment (current transformers preinstalled in cut outs or switchgear at manufacture) this is not always appropriate or necessary where that Metering Equipment is used in LV installations. In some installations current transformers are delivered in sealed units and have already been tested (and certain requirements of CoP4 confirmed) by the manufacturer ‘off site’ (i.e. in the factory). In these instances it may not be cost effective or reasonably practicable to complete all Commissioning tests ‘on site’, as elements of accuracy, such as ratios and polarity will have been confirmed at manufacture. The sealed design of the equipment prevents tampering of the transformers between manufacture and delivery for connection. For this reason it may not be physically possible to access the current transformers and so meaningful Commissioning tests cannot be completed ‘on site’.	
Proposed Solution (mandatory by originator)	

¹ Low Voltage (LV) – premises or distribution system metered at voltages of less than a kilovolt.

² Code of Practice 4 (CoP4) The Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlement Purposes

³ Defined in Section X of the Balancing and Settlement Code (BSC) as Meters, measurement transformers (voltage, current or combination units), metering protection equipment including alarms, circuitry, associated Communications Equipment and Outstations and wiring

This change proposes to add three new paragraphs and a new bullet point into CoP4. These additions specify that current transformers that are preinstalled in cut outs or switchgear at manufacture may be Commissioned 'off site'. This is conditional on the 'off site' tests being done in line with the requirements detailed in Sections 5.5.2 and 6.2 (Half Hourly (HH) and Non Half Hourly (NHH) respectively) of CoP4. This change also proposes an amendment to the existing footnote around the instruments used for Commissioning (7).

The first proposed paragraph would be added to both section 5.5.2 'Commissioning Tests' and section 6.2 'Commissioning Tests' (tailoring the individual section references to each) and would read:

'Current Transformers preinstalled in LV cut outs or switchgear off site and delivered to site for connection may be Commissioned off site provided this is done in accordance with Section (5.5.2/6.2) of CoP4 other than the requirement that the Commissioning be performed on site. Additional Commissioning tests will be required on site by the MOA to complete a full Commissioning test in line with CoP4 obligations and confirm correct and secure connections from the Meter up to and including the Testing Facilities. Where the current transformers are not owned by a BSC Party then the Registrant of the Metering System, via its appointed MOA, shall be responsible for ensuring these requirements are met.'

This footnote gives a BSC Party the freedom required to allow current transformers to be Commissioned 'off site' whilst emphasising that the responsibility for ensuring that full Commissioning of the Metering System is completed to the current CoP4 standard. It also specifies that some 'on site' tests will still be required to confirm the overall accuracy of the Metering System (as per the relevant CoP) such as the connections up to the Meter and the Meter itself.

The second paragraph would be added to section 5.3⁴ and would read:

'For the avoidance of doubt where current transformers contained within a LV cut out or switchgear are Commissioned off site in line with paragraph 3 (section 5.5.2) the requirements detailed in sections 5.3.1 (Responsibility for Calibrations and Maintenance of Records) and 5.3.2 (Initial Calibrations) shall still endure and remain with the relevant BSC Party. The BSCCo (or any delegated 3rd party) shall have the right to audit any manufacturers performing Commissioning off site to ensure that this Commissioning is undertaken in line with CoP4 requirements. Any non-compliance found shall be the responsibility of the relevant BSC Party responsible for Commissioning.'

Existing footnote 7 (section 5.5.1⁵) would be amended to read:

'...or relevant network operator, as appropriate. Where current transformers are Commissioned off site in line with paragraph 3 (section 5.5.2) then the BSC Party responsible for the Commissioning of measurement transformers shall ensure a traceable process exists and is followed for the periodic calibration of instruments used for Commissioning.'

Finally, a bullet point would be added to section 5.5.4 to read:

'- Where Commissioning has taken place off site, records shall include the identity of the third party Commissioning agent along with the contact details and address at which the testing was performed. For the avoidance of doubt, where BSCCo intends to audit a manufacturer completing offsite Commissioning, BSCCo will contact the Party responsible for ensuring the requirements of COP4 Section 5.5 have been met. It is the responsibility of said Party to organise the site audit.'

⁴ Measurement Transformers and Testing Facilities

Justification for Change (mandatory by originator)

We are aware it has been brought to ELEXON's attention by various parties; both BSC Parties (LDSOs) and non-BSC Parties (ICPs⁶) that the requirement in CoP4 to Commission Metering Equipment 'on site' is not always practical or does not add value if Commissioning of the Metering Equipment has already been completed off site and furthermore can be restrictive. The current requirement to Commission on site causes duplication of testing which in turn is unnecessarily resource intensive and time consuming. Also as mentioned, in some instances the current transformers may not be accessible to complete Commissioning on site where the design of the sealed unit does not easily allow access.

We have assessed this view (including through conversations with ELEXON) and believe that the allowance of off site Commissioning for current transformers pre-installed in cut outs or switchgear for use in LV installations does not pose a risk to Settlement provided that the Commissioning tests continue to be completed in line with CoP4 and additional on site tests are completed post installation to confirm the remaining commissioning tests that are not possible to confirm off site (such as whether the correct ratios are programmed into the Meter or whether phase rotation is standard at the Meter terminals).

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

BSC Section L 'Metering'

Estimated Implementation Costs (mandatory by BSCCo)

£240 (one ELEXON working day to implement the necessary document changes).

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

Code of Practice 4 'The Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlement Purposes'

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

N/A

Related Changes and/or Projects (mandatory by BSCCo)

None

Requested Implementation Date (mandatory by originator)

1 November as part of the November 2018 BSC Release

⁵ Instruments for Commissioning

⁶ Independent Connection Providers.

Reason:

From conversations with ELEXON, they do not envision any system changes and feel that this change could be incorporated into processes and practices fairly quickly and therefore should be included in the next available BSC Release.

Version History (mandatory by BSCCo)***Originator's Details:***

BCA Name: Christopher Southgate

Organisation: GTC (ETCL & IPNL)

Email Address: chris.southgate@gtc-uk.co.uk

Telephone Number: 01359 245249

Date: 12/03/2018

Attachments: N