

CP Progression Paper

CP1505 'Allowing 'off site' Commissioning of current transformers preinstalled in cut outs or switchgear at manufacture for use in Low Voltage (LV) installations'

ELEXON



Committee

Imbalance Settlement Group



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About This Document

This document provides information on new Change Proposal (CP) CP1505 and outlines our proposed progression timetable for this change, including when it will be issued for CP Consultation in the next suitable Change Proposal Circular (CPC) batch.

We are presenting this paper to capture any comments or questions from ISG and SVG Members on this CP before we issue it for consultation.

There are two parts to this document:

- This is the main document. It provides a summary of the solution, impacts, anticipated costs, and proposed implementation approach, as well as our proposed progression approach for this CP.
- Attachment A contains the CP1505 proposal form.
- Attachment B contains the proposed redlined changes to deliver CP1505 solution.

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1 Why Change?

Background

[Code of Practice 4 'The Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlement Purposes' \(CoP4\)](#) details the requirements for Commissioning Metering Equipment for Settlement purposes.

CoP4 Sections 5.5.2 and 6.2 (Half Hourly (HH) and Non Half Hourly (NHH) respectively) detail the required output of the Commissioning tests and state that these tests should be conducted 'on site':

'Commissioning tests on site shall be performed to confirm and record ...'

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.

What is the issue?

For certain Metering Equipment (specifically current transformers preinstalled in cut-outs or switchgear at manufacture) although Commissioning tests are necessary they are not always practical or convenient to be done 'on site' where the Metering Equipment is used in low voltage (LV) installations. For High Voltage (HV) and Extra HV (EHV) Metering Equipment, multi-ratio current transformers may be used and therefore 'on site' Commissioning tests are reasonable and necessary to confirm the correct configuration of the equipment.

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 necessary to complete all Commissioning tests 'on site', as elements of accuracy, such as ratios and polarity will have been confirmed at manufacture. Furthermore, it may not be practicable to perform tests on site as 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'. The exact scale of this issue shall be clarified through industry consultation.



What counts as Metering Equipment?

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



What counts as low voltage?

CP1505 uses the LV definition listed in The Electricity Supply and Continuity Regulations 2002: 'In relation to alternating current, a voltage exceeding 50 volts measured between phase conductors (or between phase conductors and earth), but not exceeding 1000 volts measured between phase conductors (or 600 volts if measured between phase conductors and earth), calculated by taking the square root of the mean of the squares of the instantaneous values of a voltage during a complete cycle.'

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Proposed solution

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 and 6.2 (Half Hourly (HH) and Non Half Hourly (NHH) respectively) of CoP4. Where the current transformers are owned by a BSC Party that Party shall be responsible for ensuring the requirements of the aforementioned Sections of CoP4 are performed on its Metering Equipment 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 change also proposes an amendment to the existing footnote around the instruments used for Commissioning (7). The addition shall confirm responsibility and traceability of the Commissioning tests completed 'off site'.

The added text 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.

Proposer's rationale

It has been brought to ELEXON's attention by various parties - both BSC Parties (Licensed Distribution System Operators (LDSOs)) and non-BSC Parties (Independent Connection Providers (ICPs)) - that the requirement in CoP4 to Commission Metering Equipment 'on site' is not always practical or possible. The Commissioning of the Metering Equipment would be more cost efficient to be completed 'off site'. The current requirement to Commission 'on site' causes duplication of testing which in turn is unnecessarily resource intensive and time consuming. As mentioned, in some instances the current transformers may not be accessible to complete Commissioning 'on site' where modern design of the sealed unit does not easily allow access.

Proposed redlining

Attachment B contains the proposed changes to CoP4, to deliver CP1505.

The first proposed paragraph would be added to both CoP4 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.'

The second paragraph would be added to section 5.3 'Measurement Transformers and Testing Facilities' 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 5.5.1 'Instruments for Commissioning') 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.'

Also, 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.'

3 Impacts and Costs

Central impacts and costs

Central impacts

CP1505 will require changes to CoP4. No system changes are required for this CP.

Central Impacts	
Document Impacts	System Impacts
<ul style="list-style-type: none">• CoP4	<ul style="list-style-type: none">• <i>None</i>

Central costs

The central implementation costs for CP1505 will be approximately £240 (one ELEXON working day to implement the necessary document changes).

BSC Party & Party Agent impacts and costs

We expect this change to have an impact on Distribution System Operators (DSOs). Half Hourly Meter Operator Agents (HHMOAs) may also potentially be impacted when Commissioning current transformers not owned by a BSC Party.



Recommended Implementation Date

CP1505 is provisionally proposed for implementation on **1 November 2018** as part of the November 2018 BSC Release.

The November 2018 Release is the next available Release that can include this CP.

Why is the implementation date **provisional**?

CP1505's inclusion in the November 2018 BSC Release, is subject to impact assessment.

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5 Proposed Progression

Progression timetable

The table below outlines the proposed progression plan for CP1505:

Progression Timetable	
Event	Date
CP Progression Paper presented to ISG for information	20 Mar 18
CP Progression Paper presented to SVG for information	27 Mar 18
CP Consultation	9 Apr 2018 – 4 May 18
CP Assessment Report presented to ISG for decision	22 May 18
CP Assessment Report presented to SVG for decision	29 May 18
Provisional Proposed Implementation Date	1 Nov 2018 (Nov 18 Release)

CP Consultation questions

We intend to ask the standard CP Consultation questions for CP1505. We do not believe any additional questions need to be asked for this CP.

Standard CP Consultation Questions
Do you agree with the CP1505 proposed solution?
Do you agree that the draft redlining delivers the CP1505 proposed solution?
Will CP1505 impact your organisation?
Will your organisation incur any costs in implementing CP1505?
Do you agree with the proposed implementation approach for CP1505?

6 Recommendations

We invite you to:

- **NOTE** that CP1505 has been raised;
- **NOTE** the proposed progression timetable for CP1505; and
- **PROVIDE** any comments or additional questions for inclusion in the CP Consultation.

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Appendix 1: Glossary & References

Acronyms

Acronyms	
Acronym	Definition
BSC	Balancing and Settlement Code (<i>industry Code</i>)
CP	Change Proposal
CoP	Code of Practice
CPC	Change Proposal Circular
DSO	Distribution System Operator
EHV	Extra High Voltage
HH	Half Hourly
HV	High Voltage
HHMOA	Half Hourly Meter Operating Agent
ICP	Independent Connection Provider
ISG	Imbalance Settlement group
LV	Low Voltage
NHH	Non-Half Hourly
SVG	Supplier Volume Allocation Group

External links

External Links		
Page(s)	Description	URL
2	Code of Practice 4: The Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlement Purposes	https://www.elexon.co.uk/bsc-and-codes/bsc-related-documents/codes-of-practice/