CP Progression Paper

CP1496 'Introduction of two data flows for the Commissioning process for Half Hourly (HH) Supplier Volume Allocation (SVA) Current Transformer (CT) operated Metering Systems'

Committee

Imbalance Settlement Group

Contact

Chris Wood

020 7380 4142

chris.wood@elexon.co.uk

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About This Document

This document provides information on new Change Proposal (CP) CP1496 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 the Imbalance Settlement Group (ISG) and the Supplier Volume Allocation Group (SVG) Members on this CP before we issue it for consultation.

There are seven 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 CPXXXX proposal form.
- Attachments B-F contain the proposed redlined changes to deliver the CP1496 solution.

1 Why Change?

Background

Whenever new Metering Systems are installed it is essential to ensure that the correct Commissioning process is followed. The requirements for Commissioning are set out in Code of Practice Four 'Code of Practice for the Calibration, Testing and Commissioning requirements of Metering Equipment for Settlement purposes' (CoP4). By ensuring the Commissioning process is completed correctly, Parties can be assured that the data submitted for Settlement purposes is accurate and a true reflection of the volumes involved. This ensures that Settlement calculations are based on actual volumes and reduces the probability of Trading Disputes arising from the use of inaccurate data.

The responsibility for Commissioning lies with the Registrant[1]. However, this responsibility can be delegated to their appointed Half Hourly Meter Operator Agent (HHMOA). The exception to this is measurement transformer[2] . Where a measurement transformer is owned by a Balancing and Settlement Code (BSC) Party, the owning BSC Party shall be responsible for its Commissioning up to, and including, the testing facilities (in this case the Registrant or MOA as applicable, remains responsible for Commissioning the remainder of the Metering System). Where a measurement transformer is not owned by a BSC Party, the Registrant, via its appointed HHMOA, shall be responsible for the Commissioning of all Metering Equipment within the Metering System, including the measurement transformer.

The Commissioning requirements and associated communications obligations for this process are set out in CoP4. BSC Procedure (BSCP) 514 'SVA Meter Operations For Metering Systems Registered in SMRS' and BSCP 515 'Licensed Distribution' set out the detailed timescales for these activities.

Ownership of measurement transformers

Measurement transformers are most commonly owned by Licensed Distribution System Operators (LDSOs). In some cases, LDSO may also refer to an Embedded DSO or other private network operator that is a BSC Party. However, for the purposes of this paper these are collectively referred to as LDSOs in line with the BSCPs.

Examples of cases where measurement transformers are not owned by a LDSO are where they are owned by an Independent Connections Provider (ICP) or Building Network Operator (BNO). An ICP is an accredited company entitled to build electricity networks to the specification and quality required for them to be adopted by a LDSO, but it is not a BSC Party. This would normally be seen where the measurement transformer is Commissioned ahead of its ownership being transferred to a LDSO. A BNO is an organisation that owns or operates the Distribution Network within a multiple occupancy building e.g. a block of flats, but it is not a BSC Party. In this example ownership of measurement transformers stays with the BNO.

What is the issue?

Passing information by email is resource intensive and is difficult to track. Through the Technical Assurance of Performance Assurance Parties (TAPAP) process, we have seen numerous cases of participants not being able to provide evidence of when Commissioning

What is involved in Commissioning

Commissioning is a process to ensure that the energy flowing across a defined Metering Point is accurately recorded by the associated Metering System.

The instruments used for Commissioning shall be periodically calibrated and calibration records should be retained and be traceable.

Tests on site shall be performed and recorded as appropriate. Tests shall include ensuring measurement transformers are set-up properly as well as ensuring that the meters are set-up so they record at the right point and compensate for errors correctly.

On completion of Commissioning, Metering Equipment should be sealed correctly.

On completion of Commissioning a proving test shall be completed to ensure that the data recorded by the Metering System can be transferred to settlement.

For more information see CoP4 Guidance on the ELEXON website.

[1] The person registered in Central Metering Registration Service (CMRS) or, alternatively, the Supplier Meter Registration Service (SMRS) for that Metering System pursuant to BSC Section K. This is normally the Supplier.

[2] Measurement transformers can be either current transformers or voltage transformers and are used to measure current or voltage respectively. Collectively they are referred to as measurement transformers.

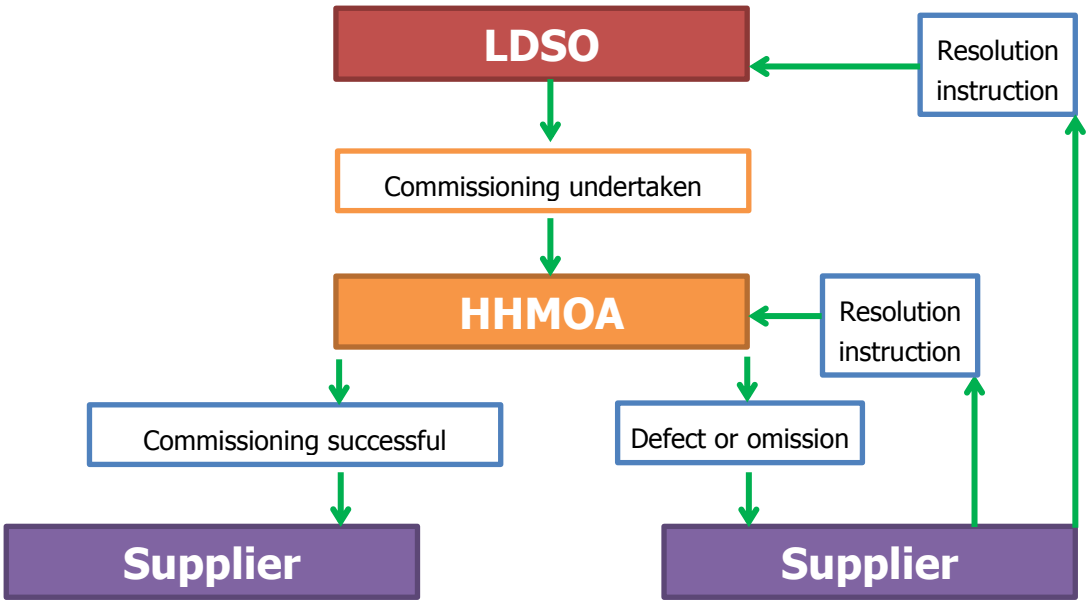
information has been shared. It is also a less secure method of passing confidential information than the other methods commonly used within the industry.

The Commissioning process is different where the measurement transformers are owned by a Party than where they are owned by a non-Party[3]. Similarly, defined timescales for omission and defect rectification (i.e. where technical issues are discovered or data is not shared) are not given, so potentially inaccurate data from that Metering System could be used in Settlement for some time until defects are rectified.

Where a LDSO is responsible for Commissioning measurement transformers, CoP4 requires that they prepare, and make available to the appointed HHMOA, complete and accurate Commissioning records in relation to these obligations. Where the measurement transformers are not owned by a LDSO, this responsibility lies with the Registrant. In all cases, it is the responsibility of the HHMOA to notify its Registrant, via an auditable electronic method, that either:

- All items of Metering Equipment have been fully and successfully Commissioned; or
- There is a defect or omission preventing the Commissioning process from being completed

Diagram showing process flow for commissioning communications



BSCP 514 section 5.2.2 sets out the timescales for the passing of key information in the Commissioning process. There are three occasions when communications are required:

- The LDSO informs the HHMOA of measurement transformer Commissioning
- The HHMOA informs the Supplier that Commissioning has been completed
- The HHMOA informs the Supplier that there was a defect or omission that has prevented complete Commissioning. This could be that the LDSO has not passed on the relevant information as well as any issue with the physical Commissioning.

In order for the process to work the following communications are also required:

What is a TAPAP?

A TAPAP is undertaken by ELEXON to ensure that BSC processes are being conducted properly. They may also be undertaken following a modification to the Code to ensure that the changes are being implemented properly.

As part of the process ELEXON may visit a Party's office to complete and audit as well as undertaking various other assurance activities. The findings of a TAPAP are reported to the Performance Assurance Board (PAB).

For more information see the Performance Assurance section of the ELEXON website.

[3] Normally Building Network Operator (BNO), Independent Network Operator (ICP) or customer owned

- The Supplier instructs the LDSO to resolve a gap in the process regarding measurement transformers
- The Supplier instructs the HHMOA to resolve a gap in the process regarding Metering Equipment

To meet these obligations currently, LDSOs email Commissioning records as PDF email attachments to the appointed HHMOAs. The HHMOAs then email any relevant PDF attachments to their Registrant to notify them of the Commissioning status of the relevant Metering System. Similarly, where there are gaps in the process or issues with completing Commissioning, this information, and corresponding instructions are also passed by email.

2 Solution

Proposed solution

New dataflows

CP1496 proposes introducing two new data flows for the passing of Commissioning information and to facilitate the additional obligation for whoever carries out the Commissioning to retain all relevant documents. CP1496 also proposes to amend the required timescales for Commissioning by introducing specific deadlines for omission/defect rectification and to split out the process for Party owned measurement transformers from that for non-Party owned measurement transformers.

ELEXON has already raised the supporting change to the Data Transfer Catalogue (DTC) to create these two new flows (DTC CP 3522). The DTC changes will support the new Commissioning process introduced by CP1496. The two data flows will be:

- 'DAXXX Notification of Commissioning information'; and
- 'DBXXX Notification of Commissioning status'

Please note: *As we are proposing two new dataflows, in order to reduce confusion in this paper and the draft redlining they are referred to as DAXXX and DBXXX. The actual numbering of the dataflows will be assigned by the Master Registration Agreement Service Company (MRASCo) approximately 2 months before the CP1496 implementation date and will follow the standard 'DXXXX' format (e.g. D0170 or D0215) format. DAXXX and DBXXX are used as placeholders in the BSC Configurable Items amended for CP1496 to allow the ISG and the SVG to approve it before the actual flow numbers are available. The version of these BSC Configurable Items that become effective on the CP1496 implementation date will contain the actual flow numbers.*

Dataflow DAXXX will be used by the LDSO to inform the HHMOA of measurement transformer Commissioning. It will also be used by the HHMOA internally (but not transmitted) when they have performed their own Commissioning (on behalf of the Registrant) to create a complete Meter System record of Commissioning information.

Dataflow DBXXX will be used for;

- the HHMOA to communicate gaps or errors in the process to the Registrant
- for the Registrant to send instructions to the LDSO or HHMOA, as appropriate, to rectify any gap in the process
- for the HHMOA to inform the Registrant that complete Commissioning has been completed

Diagram showing direction of flow for DBXXX

For the purposes of CP1496 There are four possible directions of flow for the DBXXXX:

- HHMOA to Registrant
- Registrant to HHMOA
- Registrant to LDSO

What is a dataflow?

A dataflow is a structured message sent over the Data Transfer Network (used by industry participants to share data). Each dataflow has a set structure and can be used to transfer specific pieces of information. Within each dataflow there will be a list of data that can be included and how it should be represented.

For more information, see the Data Transfer Catalogue website.

- LDSO to Registrant

Note: Both DAXXX and DBXXX will also be able to be used as part of the Change of Agent process. The changes to BSCP514 and BSCP515 to facilitate the use of DAXXX and DBXXX in the Change of Agent process are proposed in CP1497.

Change of timescales

With the increasing number of non-BSC Parties installing Metering Equipment, we propose to define separate Commissioning processes for BSC Party and non-BSC Party owned equipment. This is to provide clarity around the two different processes and the timescales for each scenario.

The new processes will provide the HHMOA with sufficient time to have received the LDSO Commissioning information, inform the Registrant of any defect or omission that has prevented Commissioning and for the Registrant to have then taken steps involving the HHMOA and LDSO where necessary to complete Commissioning. They will also introduce specific timescales for completing defect or omission rectification which currently don't exist.

These revised timescales do provide a slightly longer duration for the end to end Commissioning process and with the timescales still being based around when Energisation occurs (as they do presently). It also provides more opportunity for HHMOA Commissioning on prevailing load.

The new key stages (with current timescales shown in brackets for reference) will be:

1. LDSO Commissioning: 16 (16) working days (WD) after energisation
2. LDSO pass Commissioning information to HHMOA: 21 (22) WD after energisation
3. HHMOA first attempt at Commissioning: 32 (16) WD after energisation
4. HHMOA advise Supplier of defect/omission: 5 (5) WD after first attempt
5. HHMOA advise Supplier of defect/omission: 5 (5) WD after Commissioning complete
6. Supplier resolution of any defect or omission: 65 WD after energisation (no timescales – this is a new step to make existing obligations clearer)
7. Final deadline for HHMOA to complete Commissioning: 80 WD after energisation (no timescales – this is a new step to make existing obligations clearer)

Retention of records

Whoever is responsible for completing the Commissioning process will be required to retain the evidence of Commissioning (rather than emailing it on as a PDF document) for the duration of the Metering System's lifetime. The proposed change to CoP4 will require that they 'make available upon request, complete and accurate calibration records in relation to these obligations'. We envisage that the requirement to 'make available' will include, but not be limited to, when being audited or as part of a relevant investigation.

Proposer's rationale

The introduction of the new dataflows will provide a clear and robust process, with achievable timescales, for the exchange of information relating to Commissioning of Metering Systems for new connections. By formalising the passing of information by dataflow into line with other industry practices through the use of the DTN for the passing of Meter related information.

TAPAP check

In 2016 ELEXON undertook a TAPAP in relation to how well Parties were meeting the Commissioning obligations introduced by modification P283 'Reinforcing the Commissioning of Metering Equipment Processes', which was implemented as part of the November 2014 BSC Release.

The TAPAP checks discovered a number of risks associated with completing P283 Commissioning. These risks include:

- An increased chance of error due to the manual nature of communication methods (i.e. scanning and e-mailing documents) ;
- Difficulty in tracking and auditing e-mails and similar communications (this was realised as part of the TAPAP);
- Loss of confidential information over the email exchange. This is amplified if emails are not sent via secure media; and
- It can take some time to recover records and scan and email them to the relevant Agent. This may delay material defects or omissions from being dealt with.

One of the recommendations that came from the TAPAP was to introduce timescales into BSCP514, and BSCP515. This was achieved with the implementation of CP1458 'Introduction of timescales for the P283 Commissioning process for SVA CT operated Metering Systems'.

New data flows

Another recommendation, which this CP seeks to achieve, was for the creation of a set of dataflows to facilitate Commissioning communications obligations between Parties and their Agents. A number of industry workgroups have been held to develop this solution with attendance from LDSOs, Embedded DSOs, HHMOAs and Suppliers. This was done in conjunction with updates to and feedback from the MRA Issue Resolution Expert Group (IREG) and the Performance Assurance Board (PAB).

Associated CPs

Members of the workgroup also requested that the scope of this work should include the Change of Agent process. However, this would be independent of CP1496 and consequently has been raised separately as CP1497 'Introduction of data flows for Half Hourly Meter Operator Agents (HHMOA) to pass on Commissioning information when there is a Change of Agent (CoA)'.

The workgroup also requested the addition of a formal rejection response mechanism and associated dataflow that will enable LDSOs to inform the HHMOAs that they are not the measurement transformer owner when the HHMOA requests site technical details. This has been raised as CP1495 'Introduction of a rejection response dataflow for a D0170 'Request for Meter System Related Details' request from the Meter Operator Agent to the

Licensed Distribution System Operator where a D0215 'Provision of Site Technical Details' response is required'.

Although not dependent on each other, given the shared background of the three CPs, CP1496 will be issued for industry consultation and presented to the ISG and SVG for approval at the same time as CP1495 and CP1497.

Proposed redlining

Attachments B-F set out the proposed draft changes to the BSC Configurable Items required to implement the proposed solution.

3 Impacts and Costs

Central impacts and costs

Central impacts

The solution for CP1496 will require changes to five Code Subsidiary Documents (CSDs):

- Changes to CoP4 to reflect changes to the requirements to maintain records;
- Changes to BSCP514 and BSCP515 to reflect changes to the Commissioning time line and communication requirements;
- Changes to BSCP515 to introduce the use of DAXXX
- Changes to the SVA Data Catalogue Volumes One and Two will reflect the introduction of new flows into the Data Transfer Catalogue (DTC) once MRASCo has confirmed the new dataflow titles following approval by the MRA Development Board (MDB).

CP1496 has no impact on BSC systems.

Central Impacts	
Document Impacts	System Impacts
• Code of Practice 4 – 'The Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlement Purposes' • BSCP514 – 'SVA Meter Operations For Metering Systems Registered in SMRS' • BSCP515 – 'Licenced Distribution' • SVA Data Catalogue Volume 1: Data Flows • SVA Data Catalogue Volume 2: Data Items	• None

Central costs

The central implementation costs for CP1496 will be approximately £960 (four ELEXON working days) to implement relevant document changes. The breakdown of costs is as follows:

- One day to implement changes to CSDs; and
- Three days to implement and review changes to the Commissioning of measurement transformers for Settlement purposes (Code of Practice 4) Guidance

BSC Party & Party Agent impacts and costs

CP1496 will require HHMOAs, LDSOs and Suppliers to implement system changes to receive the new dataflows and they will need to amend their Commissioning processes. DTC CP3522 will be presented to the MDB for approval in December 2017. If approved,

this will give Parties 6 months to make the necessary changes to their systems in time for implementation in June 2018.

BSC Party & Party Agent Impacts	
BSC Party/Party Agent	Impact
Supplier	Amend systems to create and receive new dataflows. Implement changes to Commissioning process to comply with CSD changes.
LDSOs and Embedded LDSOs	Amend systems to create and receive new dataflows. Implement changes to Commissioning process to comply with CSD changes.
Half Hourly MOAs	Amend systems to create and receive new dataflows. Implement changes to Commissioning process to comply with CSD changes.
Non Half Hourly MOAs	Amend systems to create and receive new dataflows. Implement changes to Commissioning process to comply with CSD changes.

4 Implementation Approach

Recommended Implementation Date

CP1496 is being progressed alongside DTC CP 3522. A decision on whether to approve DTC CP 3522 is expected in December 2017 for implementation on 28 June 2018.

So that BSC and DTC changes are introduced at the same time, ELEXON proposes to implement CP1496 on 28 June 2018 as part of the June 2018 BSC Release.

5 Proposed Progression

Progression timetable

The table below outlines the proposed progression plan for CP1496. BSCP514, BSCP515 and the SVA Data Catalogue Volumes One and Two are owned by the SVG.

CoP4, however, is jointly owned by the ISG and SVG. Accordingly, CP1496 will be presented to both Committees for information and for decision. The full progression timetable is:

Progression Timetable	
Event	Date
CP Progression Paper presented to ISG for information	24 Oct 17
CP Progression Paper presented to SVG for information	31 Oct 17
CP Consultation	6 Nov 17 – 1 Dec 17
CP Assessment Report presented to SVG for decision	2 Jan 18
CP Assessment Report presented to ISG for decision	16 Jan 18
Proposed Implementation Date	28 Jun 18 (Jun 18 Release)

CP Consultation questions

In addition to the standard CP Consultation questions for CP1496, we intend to ask three additional questions as outlined in the second table below.

Standard CP Consultation Questions
Do you agree with the CP1496 proposed solution?
Do you agree that the draft redlining delivers the CP1496 proposed solution?
Will CP1496 impact your organisation?
Will your organisation incur any costs in implementing CP1496?
Do you agree with the proposed implementation approach for CP1496?

Additional CP Consultation Questions
Do you agree with the new timings for Commissioning proposed as part of the CP1496 solution?
Do you agree with the new timings for defect or omission rectification proposed as part of the CP1496 solution?
Do you agree that Commissioning records should be retained by those responsible for Commissioning rather than being transferred to the Meter Operator Agent?

6 Recommendations

We invite you to:

- **NOTE** that CP1496 has been raised;
- **NOTE** the proposed progression timetable for CP1496;
- **PROVIDE** any comments or additional questions for inclusion in the CP Consultation ; and
- **NOTE** that we will also present CP1496 to the SVG for initial comment on 31 October 2017.

Appendix 1: Glossary & References

Acronyms

Acronyms used in this document are listed in the table below.

Acronyms	
Acronym	Definition
BNO	Building Network Operator
BSC	Balancing and Settlement Code
BSCP	BSC Procedure
CMRS	Central Meter Registration Service
CoP4	Code of Practice Four
CP	Change Proposal
CPC	Change Proposal Circular
CT	Current transformer
DTC	Data transfer Catalogue
HH	Half Hourly
HHMOA	Half Hourly Meter Operator Agent
ICP	Independent Connections Provider
IREG	Issue Resolution Export Group
ISG	Imbalance Settlement Group
LDSO	Licensed Distribution System Operator
MRA	Master Registration Agreement
MRASCo	MRA Service Company
PAB	Performance Assurance Board
SMRS	Supplier Meter Registration Service
SVA	Supplier Volume Allocation
SVG	Supplier Volume Allocation Group
TAPAP	Technical Assurance of Performance Assurance Parties
WD	Working Day

DTC data flows and data items

CP1496 itself will not have any impact on existing DTC data flows and data items. As mentioned above, DTC CP 3352 is proposing the introduction of two new dataflows and with the new data items associated with each of these. Once the MDB has decided to implement DTC CP 3352, then ELEXON will be notified of the names and numbers of the new dataflows and data items.

External links

A summary of all hyperlinks used in this document are listed in the table below.

All external documents and URL links listed are correct as of the date of this document.

External Links		
Page(s)	Description	URL
2	CoP4 on ELEXON website	https://www.elexon.co.uk/bsc-and-codes/bsc-related-documents/codes-of-practice/
2	BSCP514	https://www.elexon.co.uk/bsc-and-codes/bsc-related-documents/bscps/?show=all
2	BSCP 515	https://www.elexon.co.uk/bsc-and-codes/bsc-related-documents/bscps/?show=all
2	'CoP4 Commissioning of measurement transformers for Settlement purposes' on ELEXON website	https://www.elexon.co.uk/bsc-and-codes/bsc-guidance-notes/
3	Performance Assurance page on ELEXON website	https://www.elexon.co.uk/reference/performance-assurance/
4	DTC webpage	https://dtc.mrasco.com/default.aspx
5	CP1495 Webpage	https://www.elexon.co.uk/change-proposal/cp1496/
5	Modification P283 webpage	https://www.elexon.co.uk/mod-proposal/p283/
6	CP1458 webpage	https://www.elexon.co.uk/change-proposal/cp1458/
6	CP1495 webpage	https://www.elexon.co.uk/change-proposal/cp1495/