

## CP Progression Paper

### Introducing the CVA Commissioning End to End Check (CEEC)

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#### About This Document



Not sure where to start? We suggest reading the following sections:

- Have 5 mins? Read section 1
- Have 15 mins? Read sections 1, 4, 5 and 6
- Have 30 mins? Read all sections
- Have longer? Read all sections and the annexes and attachments
- *You can find the definitions of the terms and acronyms used in this document in the [BSC Glossary](#)*

This document provides information on a new Change Proposal (CP) 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 the ISG on 5 July 2022 and the SVG on 5 July 2022 to capture any comments or questions from Committee 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 CP proposal form.
- Attachments B-F contain the proposed redlined changes to deliver the CP solution.



#### Committee

Imbalance Settlement Group (ISG)

Supplier Volume Allocation Group (SVG)



#### Contact

Stanley Dikeocha

020 7380 4063

Stanley.dikeocha@elxon.co.uk

[BSC.change@elxon.co.uk](mailto:BSC.change@elxon.co.uk)



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## 1. Summary

### Why change?

Central Volume Allocation (CVA) Metering Systems record flows of energy for large capacity circuits, so any undetected Metering Equipment commissioning errors represent a high risk to Settlement. An instance of this error occurred in 2014, captured as [Trading Dispute DA797](#)<sup>1</sup>, which resulted in a Settlement Error of **£28.85 million**.

Elxon conducted an internal lesson learned exercise and instigated an informal 'post energisation check' process between CVA Registrants and the Central Data Collection Agent (CDCA). This check has already demonstrated its ability to mitigate the risk of future undetected Metering Equipment commissioning errors.

This CP seeks to formalise the 'post energisation check' in the relevant Code Subsidiary Documents (CSDs) to ensure the process of detecting Metering Equipment commissioning errors, when they occur, is more robust. The process will be renamed the Commissioning End to End Check (CEEC).

### Solution

This CP will formalise the CEEC process in the relevant Code Subsidiary Documents (CSDs).

### Impacts and costs

This change will impact the CVA Registrants, CVA Meter Operator Agents (MOAs) and the CDCA by providing a newly formalised process which they will be required to adhere to.

This change affects [Balancing and Settlement Code Procedure \(BSCP\) 02](#)<sup>2</sup>, [BSCP20](#)<sup>3</sup>, [BSCP38 'Authorisations'](#)<sup>4</sup>, [Code of Practice \(CoP\) 4](#)<sup>5</sup> and the [CDCA Service Description](#)<sup>6</sup>.

The central implementation cost for this CP will be less than £4k to make the relevant document updates.

### Implementation

This CP is proposed for implementation on 3 November 2022 as part of the standard November 2022 BSC Release.

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<sup>1</sup> [https://assets.elxon.co.uk/wp-content/uploads/2015/10/28162313/256\\_15\\_Trading-Dispute-DA797-update\\_PUBLIC.pdf](https://assets.elxon.co.uk/wp-content/uploads/2015/10/28162313/256_15_Trading-Dispute-DA797-update_PUBLIC.pdf)

<sup>2</sup> <https://www.elxon.co.uk/csd/bscp02-proving-test-requirements-for-central-volume-allocation-metering-systems/>

<sup>3</sup> <https://www.elxon.co.uk/csd/bscp20-registration-of-metering-systems-for-central-volume-allocation/>

<sup>4</sup> <https://www.elxon.co.uk/csd/bscp38-authorisations/>

<sup>5</sup> <https://www.elxon.co.uk/csd/cop-code-of-practice-4/>

<sup>6</sup> <https://www.elxon.co.uk/csd/service-description-for-central-data-collection/>

## 2. Why Change?

### What is the issue?

CVA Metering Systems measure and record the flow of energy for large capacity circuits. The Metering Equipment comprised in these Metering Systems is commissioned by the appointed CVA MOA in accordance with the requirements outlined in CoP4. In addition, the applicable Metering System has to undergo the proving test as outlined in BSCP02, before it is energised for use in Settlement.

CoP4 requires the CVA MOA to confirm that the output of the Metering System correctly records the energy in the primary system at the Defined Metering Point (DMP). The CVA MOA is able to confirm this if they have visibility of the commissioning records of all items comprising the Metering System (e.g. measurement transformers and Meters).

However, it is often impossible for the CVA MOA to gain visibility of all the items of Metering Equipment to confirm commissioning has been completed correctly, as they can be installed and commissioned by different parties, and can be done at different times.

This makes it impracticable for the CVA MOA to complete an 'end to end' commissioning test after it installs and commissions the Meters, and prior to the relevant Licensed Distribution System Operator (LDSO) energising the circuit. Commissioning of CVA Metering Equipment prior to circuit energisation, is a requirement in [Section K](#)<sup>7</sup> of the BSC.

If the Party responsible for commissioning the relevant items of the Metering Equipment does so incorrectly, or not at all, the CVA Metering System may not accurately record energy. When this happens, [Risk 020](#)<sup>8</sup> can occur.



#### Defined Metering Point (DMP)

The BSC CoPs defines the DMP for a Boundary Point as being the point at which the Customer or generator connects to the Transmission System or a Distribution System of a Licensed Distribution System Operator.

### Background

In August 2016, Elexon raised Trading Dispute DA797 to correct a Settlement Error, which had a material impact cost to Settlement of £28.85million (£23.6million of which was due to the Trading Disputes Committee (TDC) agreeing to exceptional circumstances). £5.25m worth of Settlement Error was invalid as the period in which it was recorded fell beyond the valid Dispute Deadline.

Investigating Trading Dispute DA797 highlighted the root cause as an incorrect wiring set-up between the measurement transformers and the Meters. The outcome of the wiring set-up meant that the Meters were incorrectly recording Export instead of Import energy at a Grid Supply Point (GSP). This went unnoticed for 24 months.

Formalising the 'post energisation check' process (which is currently informal), and expanding its scope to include other commissioning scenarios, will provide greater assurance to BSC Parties that CVA Registrants, the CDCA and BSCCo (Elexon) are working to ensure that the integrity of BSC Settlement is better protected.

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<sup>7</sup> 'Classification and Registration of Metering Systems and BM Units'

<sup>8</sup> 'CVA Metering Equipment is installed, programmed or maintained incorrectly, including where Commissioning is performed incorrectly or not at all'

### 3. Solution

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#### Proposed solution

This CP proposes to update BSCP02, BSCP20 and CoP4 to include the CEEC process for new and existing CVA Metering Systems, but excluding SVA to CVA transfers. The high level process shall include the following activities:

- i. The CVA Registrant or CVA MOA will notify the CDCA of the need to perform a CEEC, based on scenarios set out in BSCP02;
- ii. From the date agreed with the CVA Registrant, and on a weekly schedule, the CDCA checks the metered data for new circuits, or circuits where certain changes have been made to the Metering Equipment, to identify when there is a flow of energy (Imports or Exports);
- iii. The CDCA submits a sample of Half Hourly (HH) data, from the relevant channel(s) of the CVA Outstation(s), to the CVA Registrant, asking them to confirm that the CVA Metering System is recording energy with the same order of magnitude, and in the correct direction versus data gathered, by the CVA Registrant, from an independent measurement source from the Settlement measurement transformers; and
- iv. The CVA Registrant confirms the status of the applicable circuit (correct or incorrect data) and the CDCA records this. If the CVA Registrant fails to respond to the CDCA's request to perform the CEEC, after **three attempts**, the CDCA escalates the issue to BSCCo.

In addition, we will update BSCP38 'Authorisations' and the CDCA Service Description.

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#### Proposer's rationale

BSCP02, BSCP20 and CoP4 don't currently enforce the post energisation check. The absence of the CEEC process lowers the probability of identifying a Metering Equipment commissioning issue in the applicable CVA Metering System. Although CVA Metering Equipment commissioning issues are rare, if and when they occur, it results in a high materiality impact to BSC Settlement.

Implementing this CP will ensure that the relevant documents are updated to contain the new CEEC process, to detect CVA commissioning issues, when they arise, providing greater Assurance to Settlement.

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#### Proposed redlining

BSCP02, BSCP20, BCSP38, CoP4 and the CDCA Service Description will be amended as part of this CP. Please see Attachments B to F.

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## 4. Impacts and Costs

### BSC Party & Party Agent impacts and costs

The CDCA, CVA MOAs and CVA Registrants will need to update their internal documents to reflect the proposed CEEC process.

BSC Party & Party Agent Impacts	
BSC Party/Party Agent	Impact
CVA Registrants	CVA Registrants will have to request CEECs to be done (or get their CVA MOA to do this); agree when to begin monitoring for energy flows; agree a suitable energy threshold with the CDCA to initiate the CEEC; and confirm with the CDCA that the outcome of the CEEC is satisfactory or, where applicable, if a rectification plan is required fix an identified issue.
CVA MOAs	CVA MOAs will have to request CEEC to be done for new Metering Systems; additions to existing Metering Systems; or certain changes to Metering Equipment; or if the CVA Registrant requests one via the CVA MOA.
CDCA	The CDCA will need to liaise with the CVA Registrant to agree when to begin monitoring for energy flows; agree a suitable energy threshold with the Registrant; send a sample of Half Hourly metered data to the CVA Registrant for comparison with other measurement sources at site; escalate CVA Registrants to BSCCo, if they fail to respond to three requests to perform the CEEC; and record the outcome of the CEEC for audit purposes.

### Central impacts and costs

#### Central impacts

This change will require updates to BSCP02, BSCP20, BSCP38, CoP4 and CDCA Service Description. This change is not expected to impact the BSC Central Systems.

Central Impacts		ISG255, SVG257
Document Impacts	System Impacts	CPXXXX
<ul style="list-style-type: none"><li><a href="#">BSCP02 'Proving Test Requirement for Central Volume Allocation Metering Systems'</a></li><li><a href="#">BSCP20 'Registration of Metering Systems for Central Volume Allocation'</a></li><li><a href="#">BSCP38 'Authorisations'</a></li><li><a href="#">CoP4 'The Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlement Purposes'</a></li></ul>	None	CP Progression Paper
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|--|--|
| • <a href="#">CDCA Service Description</a> |  |
|--|--|

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#### Impact on BSC Settlement Risks

Impact on BSC Settlement Risks
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May provide additional mitigation against Settlement Risk 20
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#### Central costs

The central implementation costs for this CP will be approximately £4k to implement the relevant document updates.

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## 5. Implementation Approach

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### Recommended Implementation Date

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This CP is proposed for implementation on 3 November 2022 as part of the standard November 2022 BSC Release as the next available release this change can target.

In addition, the introduction of a formalised CVA CEEC process will help protect Settlement further. Therefore, it is important that Industry is able to benefit from this process as early as practicable.

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## 6. Proposed Progression

### Progression timetable

The table below outlines the proposed progression plan for this CP:

Progression Timetable	
Event	Date
CP Progression Paper presented to ISG for information	5 July 2022
CP Progression Paper presented to SVG for information	5 July 2022
CP Consultation	11 July 2022 – 5 Aug 2022
CP Assessment Report presented to ISG for decision	6 Sept 2022
CP Assessment Report presented to SVG for decision	6 Sept 2022
Proposed Implementation Date	3 November 2022 (November 2022 Release)

### CP Consultation questions

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

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

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## 7. Recommendations

We invite you to:

- **NOTE** the proposed progression timetable for the CP; and
- **PROVIDE** any comments or additional questions for inclusion in the CP Consultation.
- **NOTE** that this CP will be presented to:
  - the ISG on 5 July 2022; and
  - the SVG on 5 July 2022.