

Final CP Report

CP1566 'Introducing the CVA Commissioning End to End Check process'

Contents

1.	Summary	3
2.	Why Change?	5
3.	Solution	6
4.	Impacts and Costs	7
5.	Implementation Approach	9
6.	Initial Committee Views	10
7.	Industry Views	12
8.	Final Committee Views and Decision	16



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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 8
- 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 is the CP1566 Final Change Proposal (CP) Report which Elxon has published following the final decision from the Imbalance Settlement Group (ISG) and Supplier Volume Allocation Group (SVG) to approve CP1566.

There are eight parts to this document:

- This is the main document. It provides details of the solution, impacts, costs, and implementation approach. It also summarises the ISG's and SVG's views on the proposed changes and the views of respondents to the CP Consultation, along with the final decision to approve this change.
- Attachment A contains the CP proposal form.
- Attachments B-F contain the approved redlined changes to deliver the CP1566 solution.

CP1566

Final CP Report

8 September 2022

Version 1.0

Page 1 of 17

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- Attachment G contains the full responses received to the CP Consultation.

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](#)¹, which resulted in a Settlement Error of **£28.85 million**.

Elexon 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

CP1566 will formalise the CEEC process in the relevant Code Subsidiary Documents (CSDs).

Impacts and costs

This change will impact 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 'Proving Test Requirements for Central Volume Allocation Metering Systems'](#)², [BSCP20 'Registration of Metering Systems for Central Volume Allocation'](#)³, [BSCP38 'Authorisations'](#)⁴, [Code of Practice \(CoP\) 4](#)⁵ and the [CDCA Service Description](#)⁶.

The central implementation cost for this CP will be approximately £10k to make the relevant document updates and deliver the proposed process.

- Less than £2k to implement the relevant document updates; and
- Less than £8k associated with the CDCA delivering the proposed process.

CP1566

Final CP Report

8 September 2022

Version 1.0

Page 3 of 17

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¹ https://assets.elexon.co.uk/wp-content/uploads/2015/10/28162313/256_15_Trading-Dispute-DA797-update_PUBLIC.pdf

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

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

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

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

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

Implementation & Committee Decision

The **ISG** and **SVG** approved CP1566 for implementation on 3 November 2022 as part of the standard November 2022 BSC Release.

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, CVA Metering Systems undergo a proving test, as outlined in BSCP02, before being 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 comprised in the Metering System (e.g. measurement transformers, Meters and Outstations).

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) or the Transmission System owner energising the circuit. Commissioning of CVA Metering Equipment prior to circuit energisation, is a requirement in [Section K](#)⁷ 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](#)⁸ can occur.

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 incorrect 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, 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.



Defined Metering Point (DMP)

The BSC CoPs define 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. The CoPs also define the DMP for Systems Connection Points as the point of connection between two Systems, e.g. between the Transmission System and a Distribution System or between two Distribution Systems.

CP1566

Final CP Report

8 September 2022

Version 1.0

Page 5 of 17

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⁷ 'Classification and Registration of Metering Systems and BM Units'

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

3. Solution

Approved solution

CP1566 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 notifies 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 **one attempt**, the CDCA escalates the issue to BSCCo.

In addition, we will update BSCP38 'Authorisations' to allow Registrants and MOAs to submit the new form in BSCP02 and the CDCA Service Description to place certain obligation on the CDCA to do and record the outcomes of the CEEC.

Proposer's rationale

BSCP02, BSCP20 and CoP4 don't currently enforce the post energisation check, which is the current name used to describe the CEEC. Also the CDCA Service Description does not place any obligation on the CDCA to perform the post energisation check. The absence of the CEEC process will increase the probability of a Metering Equipment commissioning issue in the applicable CVA Metering System going undetected. Although CVA Metering Equipment commissioning issues are rare, if and when they occur, it can result in a high materiality impact to BSC Settlement.

Implementing this Change 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.

CP1566

Final CP Report

8 September 2022

Version 1.0

Approved redlining

Page 6 of 17

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

Participant impacts

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.

Participant costs

The responses to the Consultation indicate that industry will incur a low to medium cost in implementing CP1566. This cost relates to the process changes and updates to current local working instructions.

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	
Document Impacts	System Impacts
<ul style="list-style-type: none">• BSCP02 'Proving Test Requirement for Central Volume Allocation Metering Systems'• BSCP20 'Registration of Metering Systems for Central Volume Allocation'• BSCP38 'Authorisations'• CoP4 'The Calibration, Testing and Commissioning Requirements of Metering Equipment for Settlement Purposes'• CDCA Service Description	None

Impact on BSC Settlement Risks

Impact on BSC Settlement Risks
Ellexon anticipates no impact on BSC Settlement Risks.

Central costs

The central implementation costs for CP1566 will be approximately £10k to implement the relevant document updates and deliver the proposed process.

- Less than £2k to implement the relevant document updates; and
- Less than £6k associated with the CDCA delivering the proposed process.

5. Implementation Approach

Approved Implementation Date

CP1566 will be implemented on 3 November 2022 as part of the standard November 2022 BSC Release.

6. Initial Committee Views

ISG's initial views

CP1566 was presented to the ISG at its meeting on [Tuesday 5 July 2022](#)⁹, with comments received from one member.

Elxon informed the ISG about the view received from two SVG members regarding the timeframe allowed in the escalation process where the Registrant fails to respond to the CDCA's request to perform a CEEC. Elxon noted the members suggested that it should be reduced from three (3) attempts to one (1) attempt before escalating to the BSCCo (Elxon). One member agreed with the view and asked that we consider reducing this to one (1) attempt only.

Secondly, the same member disagreed with an aspect of the process that encourages the CDCA to wait a month before further contact is made with the Registrant of the applicable Metering System and three months after not detecting any load or generation from the date the Registrant suggested it would appear, before escalating to the BSCCo. The member stated that this could be counter intuitive to the intent of the CP1566 solution, requesting that Elxon consider reducing this to a week. Another member agreed with this view.

Elxon noted this comment and confirmed that a question would be included in the CP Consultation to seek industry's view on the timeframe, as currently outlined in Section 10A.1 (i) of the redlined CDCA Service Description and Section 3.8.8 of the redlined BSCP02, before an escalation is raised.

- (i) where no data has been detected under 10A.1 (d) for a period of three months after the date agreed, notify BSCCo and request the relevant Registrant to investigate.

Figure 1 : Extract from the redlined CDCA Service Description Section 10A.1 (i)

	Where metered data is zero (e.g. 0MWh) on the Outstation channel for relevant MSSID(s), continue to monitor on a weekly basis and continue to 3.8.7; or	CDCA			Internal process Email
	Where zero (e.g. 0MWh) metered data is present on the MSSID(s) for three months after the date agreed with the Registrant Effective from Date or following 3.8.11, notify the Registrant to investigate and continue to 3.8.10.	CDCA	Registrant BSCCo	MSID MSSID(s)	Email Internal process

Figure 2: Extract from the redlined BSCP02 Section 3.8.8

CP1566

Final CP Report

8 September 2022

Version 1.0

Page 10 of 17

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⁹ <https://www.elxon.co.uk/meeting/isg255/>

SVG's initial views

CP1566 was presented to the SVG at its meeting on [Tuesday 5 July 2022](#)¹⁰, with comments received from two members.

A member commented on the proposed escalation process that is outlined in the CDCA Service Description. The member noted that the proposed process permits three (3) communication attempts before an escalation is submitted to the BSCCo (Elexon) and asked if Elexon could consider reducing the number of attempts from “**three (3)**” to “**one (1)**”. Elexon noted this comment and recommended that we include this suggestion in the CP Consultation to which, the member agreed. Another member agreed with the first member's suggestion.

(g) where the relevant Registrant has not responded following three attempts to initiate the CEEC, notify BSCCo of the failure to respond and request BSCCo to escalate with the Registrant. Record the outcome of CEEC following resolution of escalation to BSCCo;

Figure 3: Extract from the redlined CDCA Service Description Section 10A.1 (g)

CP1566

Final CP Report

8 September 2022

Version 1.0

Page 11 of 17

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¹⁰ <https://www.elexon.co.uk/meeting/svg257/>

7. Industry Views

This section summarises the responses received to the CP Consultation. You can find the full responses in Attachment G.

The CP1566 Consultation ran from Monday 11 July to Friday 5 August 2022, with five responses received from parties representing two Distributors and three Supplier Agents.

Summary of CP1566 CP Consultation Responses

Question	Yes	No	Neutral/No Comment	Other
Do you agree with the CP1566 proposed solution?	4	0	1	0
Do you agree that the draft redlining delivers the intent of CP1566?	5	0	0	0
Will CP1566 impact your organisation?	4	0	1	0
Will your organisation incur any costs in implementing CP1566?	3	2	0	0
Do you agree with the proposed implementation approach for CP1566?	3	2*	0	0
Should the timeframe, before an escalation is raised, be reduced from three months to one week?	2	2	0	0
Do you agree that the number of attempts in escalation process outlined in the CDCA Service Agreement should be reduce from three (3) to one (1) attempt?	1	3	0	0
Do you have any further comments on CP1566?	2	3	0	0

* One of the respondents who previously disagreed with the proposed Implementation Date, changed their view after we addressed their concern. Elexon contacted the other respondent, presenting our responses to their comments, but received no response after three attempts.

All of the respondents agreed with the CP1566 proposed solution, however one respondent suggested that the solution is delayed and aligned with the outcome from an upcoming BSC Issue¹¹, which is intending to review the risks associated with meter Registrants and Settlements.

Elexon noted and welcomed the view but advised that the CP1566 solution should be implemented as soon as practicable, to ensure that industry is able to realise the benefits. Furthermore, delaying CP1566 for an Issue that had not been raised at the point of CP Consultation may prove to be counter-intuitive. The scope of the Issue is in the process of being defined, and as such, we are unable to confirm if CP1566's solution will be in scope.

CP1566

Final CP Report

8 September 2022

Version 1.0

Page 12 of 17

¹¹ A BSC Issue is raised where there are problems or potential issues with the current arrangements whereby the solution is unknown or undefined, so once raised will be discussed by an industry expert Issue Group to consider possible solutions.

Redlining to deliver CP1566 solution

All respondents agreed that the draft redlining delivers the CP1566 Proposed solution. One respondent did have minor comments on the redlining for BSCP02 and BSCP20, which is highlighted in the proposed redlining section below.

Impacts and Costs

The majority of the respondents stated that CP1566 will impact their organisation, with two of the respondents stating a low impact and the other two respondents stating a medium impact. The general feedback from the respondents relates to the need to update their processes and resources to accommodate the proposed solution.

Implementation Date

The majority of the respondents agreed with the proposed Implementation Date. The minority that disagreed, suggested delaying the Implementation Date until February 2023 for the reason below:

- Combining the solution from CP1566 with the outcome of a new Issue “Meter Registrants and Settlement Risk” that is being proposed by DNOs to review the risks associated with Meter Registrants and Settlements. Therefore, November 2022 will not allow enough time for this.

Reducing the escalation timeframe from three (3) months to one (1) week

Two of the respondents agreed that the timeframe should be reduced to one (1) week, while the other two respondents disagreed with the suggested reduction. The remaining respondent did not comment.

One of the respondents who agreed noted that if the idea of CP1566’s solution was to reduce Settlement losses, then, there is no reason to wait for three months to escalate to Elexon.

Both respondents that disagreed suggested a timeframe of around four (4) to eight (8) weeks instead. One of the respondents noted that the proposed approach (one (1) week escalation timeframe) has the potential to backstop the resolution of potential metering issues, however, this must also be balanced against situations where circuits are not energised as planned for other reasons. For that reason, they believed the proposed timeframe of one (1) week is unreasonably short. The other respondent highlighted that the proposed approach may not provide the Registrants with enough time to organise their investigation and where possible, report back to the CDCA.

Elexon noted the feedback from both respondents and suggested one (1) month as an alternative, to which one of them agreed and the other did not respond.

Reducing the number of attempts from three (3) to one (1)

Four out of five respondents disagreed with the proposed reduction, stating that two (2) or three (3) seems more appropriate. The remaining respondent did not comment.

One of the respondents who disagreed, highlighted that no justification has been provided as to why the number of attempts should be reduced and what beneficial impact it will have on the process. Further, they noted that Elexon should balance the need to resolve the issue with the practicalities of instigating the commissioning process. Elexon noted the feedback, advised that their views will be presented to the ISG and SVG, and suggested a reduction to two (2) attempts as an alternative. The respondent agreed.

The minority who agreed noted that it would provide more time for the issues to be addressed.

Comments on the proposed redlining

Comments on the CP1566 Proposed Redlining		
Document & Location	Comment	Elxon's Response
BSCP02 – Amendment Record table	8.1 version reference different to the 8.5 previously quoted.	The version has been updated from 8.1 to 8.6, based on the updates made from the Consultation.
BSCP02 – Section 1.1, para (3,4)	When referencing fig1, should there be demarcation between the VTs and CTs which form part of a network operator (TO or DNO) obligations, as separate assets to the metering?	A footnote will be added, which will reference CoP4 as providing clarity on who is responsible for commissioning the Metering Equipment.
BSCP02 – Page 8 (Para 2)	The Registrant should be required to explain to the CDCA why the para 1 test method is 'not practically possible'	Text will be added to state that the "Registrant must provide an explanation to the CDCA as to why it is not practically possible to carry out a data comparison between metered data recorded for Settlement against independent metering equipment"
BSCP20 – Section 3 and form 4.3a	<p>Form BSCP20/4.3a includes a box for the Registrant to indicate a CEEC is required. However, this form is submitted as per Section 3.1.1 at WD-20 and falls before the MOA identifies whether a CEEC is required under Section 3.1.9 at WD-16.</p> <p>This creates a conflict.</p> <p>There will be clear situations where a Registrant will be able to identify a CEEC is required (e.g., a new GSP!) but since the onus is on the MOA there may situations where the Registrant does</p>	No further action is required as the current requirements in the redline text are appropriate for the process.

CP1566

Final CP Report

8 September 2022

Version 1.0

Page 14 of 17

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	<p>not tick this box, but the MOA flags the requirements for a CEEC.</p> <p>This should not lead to a situation where a Registrant is deemed to have submitted a non-compliant 4.3a.</p>	
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8. Final Committee Views and Decision

SVG's final views

The CP1566 Assessment Report (SVG 259/08) was presented to the SVG at its meeting on [6 September 2022](#)¹².

One member suggested that the CP1566 solution is shared with the Performance Assurance Board (PAB) to seek their views on the solution, noting that this is a more pragmatic approach of ensuring the solution fully delivers the intent of CP1566. Elexon noted this and confirmed that the CP1566 solution will be shared with the PAB.

Another member commented on the industry's response to the Consultation question that Elexon asked to confirm if the number of attempts before an escalation is raised to Elexon, should remain as three (3) or be reduced to one (1). The member suggested that the number of attempts should be reduced to one (1), noting that it makes the process more robust and better protects the integrity of Settlement.

The SVG members unanimously agreed that the number of contact attempts should be reduced to one (1) and subsequently approved the CP1566 solution, subject to Elexon reflecting their feedback in BSCP02. Elexon noted this and confirmed that BSCP02 will be updated to make it explicitly clear that the number of contact attempts shall be one (1).

ISG's final views

The CP1566 Assessment Report (ISG 257/07) was presented to the ISG at its meeting on [6 September 2022](#)¹³.

Elexon presented the comments received from SVG, stating that the majority of SVG members believed that the number of contact attempts should be reduced to one (1) as opposed to three (3) as documented in the proposed process.

The ISG members unanimously agreed that the number of contact attempts should be reduced to one (1) and subsequently approved the CP1566 solution, subject to Elexon reflecting the ISG's and SVG's feedback in BSCP02. Elexon noted this and confirmed that BSCP02 will be updated to make it explicitly clear that the number of contact attempts shall be one (1).

Final decision

The ISG and SVG have:

- **APPROVED** CP1566 for implementation on 3 November 2022 as part of the standard November 2022 BSC Release; and

CP1566

Final CP Report

8 September 2022

Version 1.0

Page 16 of 17

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¹² <https://www.elexon.co.uk/meeting/svg259/>

¹³ <https://www.elexon.co.uk/meeting/svg259/>

- **APPROVED** the proposed changes to BSCP02, BSCP20, BSCP38, CoP4 and the CDCA Service Agreement.