

CP Progression Paper

Specifying the requirements to provide Single Line Diagrams (SLDs) for High Voltage (HV) and Extra High Voltage (EHV) sites

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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 and SVG at their respective meetings on 1 November 2022 to capture any comments or questions from Committee Members on this CP before we issue it for consultation.

There are 3 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.
- Attachment B contains the proposed redlined changes to deliver the CP solution.



Committee

Imbalance Settlement Group (ISG) and Supplier Volume Allocation Group (SVG)



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1. Summary

Why change?

Currently there is no requirement in the BSC to produce SLDs despite a number of BSC processes requiring one to be submitted. Without the requirement to produce SLDs being specified, some Parties have not felt incentivised to create them.

Solution

A requirement will be added to the relevant Codes of Practice (CoPs) that mandates that an SLD must be created, and be auditable, for new HV and EHV Metering Systems, or reconfiguration of HV and EHV sites, e.g. which may introduce additional Boundary Point connections or an embedded Metering System.

Impacts and costs

This CP will have an impact on Licensed Distribution System Operators (LDSOs), Central Volume Allocation (CVA) Meter Operator Agents (MOAs) and Supplier Volume Allocation (SVA) MOAs.

The central implementation cost for this CP will be <£1k to update the relevant documents.

Implementation

The CP is proposed for implementation on 29 June 2023 as part of the standard June 2023 BSC Release.

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2. Why Change?

What is the issue?

Currently there is no requirement in the BSC to produce SLDs despite a number of BSC processes requiring one to be submitted. Without the requirement to produce SLDs being specified, some Parties have not felt incentivised to create them despite there being requirements in the BSC to submit SLDs, e.g. to Elexon and the Technical Assurance Agent (TAA).

Elexon does receive SLDs for Balancing Mechanism (BM) Unit registrations ([BSCP15¹](#)) and Registration of Transmission System Boundary Points, Grid Supply Point (GSP) Groups and Distribution Systems Connection Points ([BSCP25²](#)). There is also a requirement in [BSCP27 'Technical Assurance of Half Hourly Metering Systems for Settlement purposes'³](#) to provide an SLD to the TAA as part of the Desktop Audit process (implemented via [P391 'Introducing Desktop Audits'⁴](#)).

Additionally, under the [TAA's Working Instructions⁵](#) the TAA requires an SLD for on-site Inspection Visits in order to determine if a Metering Dispensation is required for the location of the measurement transformers versus the Defined Metering Point (DMP) set out in the relevant CoP. The TAA also requires this SLD for on-site Inspection Visits to identify the DMP and Actual Metering Point/s (AMP/s) (to see if a Metering Dispensation is required) and validate CVA Aggregation Rules ([BSCP75⁶](#)) to confirm that all circuits are captured correctly in the Aggregation Rule(s).

The TAA has highlighted that Registrants of Metering Systems are not providing SLDs as part of these audits. [CP1559 'Complex Sites Process Improvements'⁷](#) and [R0018 'Complex Sites Process Improvements'⁸](#) have been raised, and approved (for November 2022 implementation), under the BSC and the Retail Energy Code (REC) to mandate the provision of SLDs for SVA Complex Sites, yet there is no requirement, in either Code, to actually produce them outside of Complex Sites.



Complex Sites

A 'Complex Site' means; any site that requires a 'Complex Site Supplementary Information Form' to enable the Half Hourly Data Collector (HHDC) to interpret the standing and dynamic Metered Data relating to SVA Metering Systems for Settlement purposes to be provided to the HHDC in addition to the D0268 (Half Hourly Meter Technical Details).

Background

The issue came to light at the Technical Assurance of Metering Expert Group (TAMEG) when discussing non-compliances related to the requirement under Desktop Audits for the LDSO to provide SLDs where an LDSO representative highlighted that there is no requirement in the CoPs to provide one. At the seventh Workgroup meeting under [Issue 93 'Review of the BSC metering Codes of Practice'⁹](#), the Workgroup agreed to raise a Change Proposal (CP) that addresses the 'Requirements to provide SLDs for HV and EHV sites' aspect of Issue 93.

¹ <https://bscdocs.elexon.co.uk/bsc-procedures/bscp-15-bm-unit-registration>

² <https://bscdocs.elexon.co.uk/bsc-procedures/bscp-25-registration-of-transmission-system-boundary-pointsgrid-supply-points-gsp-groups-and-distribution-systems-connection-points>

³ <https://bscdocs.elexon.co.uk/bsc-procedures/bscp-27-technical-assurance-of-half-hourly-metering-systems-for-settlement-purposes>

⁴ <https://www.elexon.co.uk/mod-proposal/p391/>

⁵ <https://www.elexon.co.uk/documents/performance-assurance/techniques/tams/technical-assurance-agent-instructions-for-desktop-audits/>

⁶ <https://bscdocs.elexon.co.uk/bsc-procedures/bscp-75-registration-of-meter-aggregation-rules-for-volume-allocation-units>

⁷ <https://www.elexon.co.uk/change-proposal/cp1559/>

⁸ <https://recportal.co.uk/group/guest/-/complex-sites-process-improvements>

⁹ <https://www.elexon.co.uk/smg-issue/issue-93/>

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3. Solution

Proposed solution

This CP proposes to introduce a requirement to the relevant CoPs that mandates that an SLD must be created, and be auditable, for new HV and EHV Metering Systems, or reconfiguration of HV and EHV sites, e.g. which may introduce additional Boundary Point connections or an embedded Metering System. This change will not be retrospective and will therefore not impact existing HV and EHV sites unless significant works take place (e.g. replacement of switchgear containing measurement transformers used by the Metering System).

The Issue 93 Workgroup agreed that this should not be a requirement for Low Voltage (LV) Metering Systems as LV SLDs are quite generic so don't add any value to the audit process. Additionally, the risk and materiality associated with a Metering Equipment non-compliance is much lower.

Proposer's rationale

The provision of SLDs assists Elexon in determining where Settlement Metering Equipment is located so it can carry out validation against CoP requirements for location and Metering Equipment accuracy classes. The lack of a requirement to produce an SLD, within the relevant CoP, is causing an issue where the Metering System ID has been selected for a Desktop Audit or on-site Inspection Visit. This prevents the TAA from being able to confirm the compliance of Metering Systems.

Adding a requirement in the CoPs will ensure that there is an obligation on the LDSO, or other BSC Parties, to create the SLD at the installation and commissioning stage, or site reconfiguration stage of the process. Producing and providing SLDs for new, and reconfigured, HV and EHV sites will allow the TAA and Elexon to check that CVA and SVA Metering Systems comply with the relevant CoP and CVA Aggregation Rules, as well as SVA Complex Site aggregation rules correctly aggregating and allocating metered data to the appropriate BSC Party (the Registrant), for Settlement purposes.

Proposed redlining

The proposed redlining to CoPs 1, 2, 3 and 5 to deliver the solution can be found in Attachment B.

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4. Impacts and Costs

BSC Party & Party Agent impacts and costs

The cost to LDSOs should be minimal if they are already producing the SLDs however this will be confirmed through the consultation.

BSC Party & Party Agent Impacts	
BSC Party/Party Agent	Impact
LDSO	LDSO to create SLD and send on to other Party agents
CVA MOA	Recipient and sender
SVA MOA	Recipient and sender

Central impacts and costs

Central impacts

This CP solution only affects BSC documentation, specifically CoPs 1, 2, 3 and 5. Therefore, no BSC Central Systems will be impacted.

Central Impacts	
Document Impacts	System Impacts
<ul style="list-style-type: none">Code of Practice 1: The Metering of Circuits with a Rated Capacity Exceeding 100 MVA for Settlement Purposes¹⁰Code of Practice 2: The Metering of Circuits with a Rated Capacity not Exceeding 100 MVA for Settlement Purposes¹¹Code of Practice 3: The Metering of Circuits with a Rated Capacity not Exceeding 10 MVA for Settlement Purposes¹²Code of Practice 5: The Metering of Energy Transfers with Maximum Demand of up to (and Including) 1MW for Settlement Purposes¹³	<ul style="list-style-type: none">None

¹⁰ <https://bscdocs.elexon.co.uk/codes-of-practice/code-of-practice-1-the-metering-of-circuits-with-a-rated-capacity-exceeding-100-mva-for-settlement-purposes>

¹¹ <https://bscdocs.elexon.co.uk/codes-of-practice/code-of-practice-2-the-metering-of-circuits-with-a-rated-capacity-not-exceeding-100-mva-for-settlement-purposes>

¹² <https://bscdocs.elexon.co.uk/codes-of-practice/code-of-practice-3-the-metering-of-circuits-with-a-rated-capacity-not-exceeding-10-mva-for-settlement-purposes>

¹³ [https://bscdocs.elexon.co.uk/codes-of-practice/code-of-practice-5-the-metering-of-energy-transfers-with-maximum-demand-of-up-to-\(and-including\)-1mw-for-settlement-purposes](https://bscdocs.elexon.co.uk/codes-of-practice/code-of-practice-5-the-metering-of-energy-transfers-with-maximum-demand-of-up-to-(and-including)-1mw-for-settlement-purposes)

Impact on BSC Settlement Risks

Impact on BSC Settlement Risks

Having an SLD to check provides another control for the relevant Risk (SVA or CVA ones). This will help Elexon in confirming correct Aggregation Rules are in place to prevent double counting and check if the customer requires a Metering Dispensation for the AMP not at DMP. If the SLDs show CT/VT ratios and even accuracy classes, this will allow us to confirm CoP compliance. Therefore there will be a positive impact on;

[Risk 003 'Metering Equipment installation, programming, maintenance and Commissioning \(SVA\)'¹⁴](#);

[Risk 006 'Meter Technical Details transfer and processing'¹⁵](#);

[Risk 012 'Metering Equipment Technical Detail Quality'¹⁶](#);

[Risk 020 'Metering Equipment installation, programming, maintenance and Commissioning \(CVA\)'¹⁷](#); and

[Risk 026 'Aggregation Rules'¹⁸](#).

Central costs

The central implementation costs for this CP will be approximately <£1k.

¹⁴ <https://www.elexon.co.uk/reference/performance-assurance/performance-assurance-processes/003-sva-risk-metering-equipment-installations-are-incorrect/>

¹⁵ <https://www.elexon.co.uk/reference/performance-assurance/performance-assurance-processes/006-sva-risk-incorrect-meter-detail-transfer-on-change-of-agent/>

¹⁶ <https://www.elexon.co.uk/reference/performance-assurance/performance-assurance-processes/012-sva-risk-meter-system-technical-details-inaccurate/>

¹⁷ <https://www.elexon.co.uk/reference/performance-assurance/performance-assurance-processes/performance-assurance-risk-evaluation-register/020-cva-risk-cva-metering-equipment-installation-and-commissioning/>

¹⁸ <https://www.elexon.co.uk/reference/performance-assurance/performance-assurance-processes/performance-assurance-risk-evaluation-register/026-cva-risk-aggregation-rules/>

5. Implementation Approach

Recommended Implementation Date

This CP is recommended for implementation on 29 June 2023 as part of the standard June 2023 BSC Release.

This is the earliest available release so that we can realise the benefits of this CP as early as possible.

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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	1 November 2022
CP Progression Paper presented to SVG for information	1 November 2022
CP Consultation	7 November – 2 December 2022
CP Assessment Report presented to ISG for decision	10 January 2023
CP Assessment Report presented to SVG for decision	10 January 2023
Proposed Implementation Date	29 June 2023 (June 23 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 this CP impact your organisation?
Will your organisation incur any costs in implementing this CP?
Do you agree with the proposed implementation approach for this CP?

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 SVG on 1 November 2022.