CP Progression Paper

CP1530 'Introduction of a formalised process for the validation of measurement transformer ratios by ELEXON'

Committee

Supplier Volume Allocation Group (SVG)

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About This Document

This document provides information on new Change Proposal (CP) CP1530 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 Supplier Volume Allocation Group (SVG) Members on this CP before we issue it for consultation.

There are three 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.

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1 Summary?

Why change?

Licensed Distribution System Operators (LDSOs) currently submit transformer ratios for measurement transformers as free text, where any value can be entered. There is currently no list of valid transformer ratios or a process for the validation of the transformer ratios submitted by LDSOs. This can at times lead to erroneous data being entered and thus used in Settlement.

Solution

This CP proposes to create a valid list of transformer ratios and introduce a process, documented in Balancing and Settlement Code Procedure (BSCP) 515 'Licensed Distribution', where LDSOs submit transformer ratios to ELEXON. On receipt, ELEXON will check that the submitted ratios meet the valid format and establish a list of valid transformer ratios, to be used by LDSOs, on the ELEXON Portal. A corresponding change to the Master Registration Agreement (MRA), which requires all registrations of metering systems to use a ratio selected from the valid set published on the ELEXON Portal, has been raised: DTC CP 3576 - Introduction of Valid Sets for J0454 (CT Ratio) and J0455 (VT Ratio.

Impacts and costs

The central implementation cost for ELEXON to make the required system and document changes will be approximately £9000.

Implementation

The proposed Implementation Date for this CP is **25 February 2021** as part of the scheduled February BSC Release. This will align this CP to the MRA change Implementation Date to deliver an aligned solution for industry.

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2 Why Change?

What is the issue?

Historically, there have been issues with the quality of the data submitted for CT/VT ratios. The current data format limits the amount of characters that can be entered when populating the data items. The data submitted for the CT ratio is currently limited to six characters, and to ten characters for the VT ratio. However, it does not restrict the type of characters that can be entered. This allows for the transmitting of obviously erroneous values such as 'w/c' or '999'. So, whilst the data received by the Licenced Distribution System Operators (LDSOs) and Meter Operator Agents (MOAs) may indicate that these ratios are correct, it could have been misconfigured by technical errors. For example, the energy flow could be under-recorded: a CT ratio of 1000/5 could be incorrectly recorded as 100/5. This leads to data mismatches and confusion between Parties around measurement transformer errors and has the potential to significantly impact Settlement.

Background

Metering Systems are comprised of measurement transformers i.e. Current Transformers (CTs) and Voltage Transformers (VTs). The ratios for these transformers are communicated between Parties via Meter Technical Detail (MTD) data flows. These ratios are instrumental in allowing a Meter to record the correct primary energy flow to or from the site. Under the Master Registration Agreement (MRA), ratios are detailed via two data items, J0454 and J0455, which represents the CT and VT ratios respectively.

Accurate measurement of transformer ratios is essential for the Commissioning process, which is a series of site tests and checks on Metering Equipment. This ensures that the energy flowing across a Defined Metering Point (DMP) is accurately recorded by the associated Metering System. Absent or inaccurate CT/VT ratios can delay the process of commissioning which in turn may lead to erroneous data being used in Settlement.

What are Meter Technical Details?

This is all technical details (including Outstation channel mapping) of a Metering System required to enable metered data to be collected and correctly interpreted from that Metering System.

What is the MRA

The MRA is an Agreement that sets out the rules for the electricity Supplier registration process for the GB Market. It sets out the terms for the provision of Metering Point Administration Services (MPAS Registrations), and procedures for Change of Supplier for premise/ metering point.

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3 Solution

Proposed solution

This CP proposes the creation of a list of valid transformer ratios that can be used by LDSOs. It will also introduce a process into Balancing and Settlement Code Procedure (BSCP) 515 'Licensed Distribution' where LDSOs submit CT/VT ratios to ELEXON for publishing on the ELEXON Portal. On receipt, ELEXON will check the submitted ratios meet the valid format before publishing on the ELEXON Portal.

ELEXON has raised a corresponding MRA change to update the valid set for both affected data items. The MRA change, DTC CP 3576, references the BSC managed valid set maintained by ELEXON. This will ensure that Parties are obligated (under the MRA) to populate CT and VT ratios with a value that is present in the valid set.

However, ELEXON notes that this does not prevent LDSOs (if they own the CTs/VTs) or MOAs (if the customer owns the CTs/VTs) from populating an erroneous, but valid, ratio within the dataflow.

As part of this change, ELEXON has undertaken analysis of current measurement transformer ratios sent over the Data Transfer Network (DTN). From these data flows, we have compiled an initial suggested valid set of CT/VT ratios. ELEXON issued an industry consultation on 14 March 2019 to ascertain whether this data set was an accurate representation of all valid ratios used in the market. For the past year we have been seeking to validate this information. Although we have now received feedback from most LDSOs, it is possible that there could be a CT/VT with an abnormal ratio which would be excluded by the valid set complied under this Change Proposal. This would only occur if this ratio was not provided to ELEXON by the LDSOs; however, the valid set can be updated if an LDSO wishes to provide an new set as part of the industry consultation for this CP.

Proposer's rationale

Accurate measurement of transformer ratios is essential for the Commissioning process[1] of a Metering System. Their absence or inaccuracy may delay the process of Commissioning, and/or lead to erroneous data being used in Settlement. Therefore, to reduce the risk to Settlement, CT and VT ratios within data flows should be as accurate as possible.

CP1496 'Introduction of two data flows for the Commissioning process for Half Hourly (HH) Supplier Volume Allocation (SVA) Current Transformer (CT) operated Metering Systems' introduced two new data flows to be used as part of the Commissioning process. Both data flows related to measurement transformer ratios. CP1496 was approved by the Imbalance Settlement Group (ISG) on 16 January 2018 (ISG 201/02) and the Supplier Volume Allocation Group (SVG) on 30 January 2018 (SVG 204/06). Members discussed the benefits of raising a CP for CT/VT ratio validation, which why ELEXON is raising this CP.

[1] Commissioning is a process (i.e. a series of site tests and checks on Metering Equipment) to ensure that the energy flowing across a Defined Metering Point (DMP) is accurately recorded by the associated Metering System.

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Proposed redlining

Attachment B contains the proposed changes to BSCP515 'Licensed Distribution' to deliver this CP.

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4 Impacts and Costs

BSC Party & Party Agent impacts and costs

BSC Party & Party Agent Impacts	
BSC Party/Party Agent	Impact
LDSOs	As a result of this CP and the consequential MRA change, LDSOs will be required to use the valid set and use the validation process if they wish to add any new process.

Central impacts and costs

Central impacts

Central Impacts	
Document Impacts	System Impacts
• BSCP515: Changes will be required to implement the solution to this CP	• ELEXON Portal: A new page will be created on the ELEXON Portal in the Operational Data section. The page will allow ELEXON, from time to time, to upload a file containing the valid set of CT/VT ratios.

Impact on BSC Settlement Risks

Impact on BSC Settlement Risks
None of the metering risks identify incorrect Measurement Transformer Ratios as a significant risk. The introduction of the list will form an additional control measure for risks: 001 SVA Risk: Metering Point Registered Incorrectly or not at all, such that metered data is not collected or aggregated. 002 SVA Risk: Metering System Attributes are incorrect: SVA Metering System attributes held in the Supplier Meter Registration Service (SMRS) or by any party in the Supplier Hub are incorrect. 012 SVA Risk: Meter System Technical Details inaccurate are created incorrectly.

Impact on Core Industry Documents

ELEXON has raised a corresponding MRA change, DTC CP 3576 - Introduction of Valid Sets for J0454 (CT Ratio) and J0455 (VT Ratio, to update the valid set for both for the J0454 and J0455 data items. The MRA change will reference the BSC managed valid set maintained by ELEXON.

Central costs

The central implementation cost for ELEXON to make the required system and document changes will be approximately £9000.

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5 Implementation Approach

This CP is targeted for implementation on **25 February 2021** as part of the February 2021 BSC Release. This will align this CP to the MRA change Implementation Date to deliver an aligned solution for industry.

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6 Proposed Progression

ELEXON will present this CP Progression Paper to SVG for information on 7 July 2020. The CP will then be issued as consultation as part of the July CPC batch with responses due on 7 August. Following CP Consultation, we will present the CP Assessment Report to the SVG for Approval on 1 September.

Progression timetable

The table below outlines the proposed progression plan for CP1530:

Progression Timetable	
Event	Date
CP Progression Paper presented to SVG for information	7 July 2020
CP Consultation	13 July 2020 – 7 August 2020
CP Assessment Report presented to SVG for decision	1 September 2020
Proposed Implementation Date	25 February 2021 (as part of the scheduled February 2021 BSC Release)

CP Consultation questions

In addition to the standard CP Consultation questions for CP1530, we intend to ask an additional question as outlined below.

Standard CP Consultation Questions
Do you agree with the CP1530 proposed solution?
Do you agree that the draft redlining delivers the CP1530 proposed solution?
Will CP1530 impact your organisation?
Will your organisation incur any costs in implementing CP1530?
Do you agree with the proposed implementation approach for CP1530?

Additional CP Consultation Questions
Do you believe that there are any additional CT/VT ratios which should be included in valid set complied by ELEXON under this Change Proposal?

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7 Recommendations

We invite you to:

- **NOTE** that CP1530 has been raised;
- **NOTE** the proposed progression timetable for CP1530; and
- **PROVIDE** any comments or additional questions for inclusion in the CP Consultation.

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Appendix 1: Glossary & References

Acronyms

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

Acronyms	
Acronym	Definition
BSCP	Balancing and Settlement Code Procedure
CP	Change Proposal
CPC	Change Proposal Circular
CT	Current Transformer
DMP	Defined Metering Point
DTN	Data Transfer Network
HH	Half Hourly
ISG	Imbalance Settlement Group
LDSO	Licenced Distribution System Operator
MRA	Master Registration Agreement
MTD	Meter Technical Detail
SMRS	Supplier Meter Registration Service
SVA	Supplier Volume Allocation
SVG	Supplier Volume Allocation Group
VT	Voltage Transformer

DTC data flows and data items

DTC data flows and data items referenced in this document are listed in the table below.

DTC Data Flows and Data Items	
Number	Name
J0454	CT Ratio
J0455	VT Ratio

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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. 4

External Links		
Page(s)	Description	URL
2	BSCP515	https://www.elexon.co.uk/csd/bscp515-licensed-distribution/
2	ELEXON Portal	https://www.elexonportal.co.uk/
3	MRA website	https://www.mrasco.com/mra-products/master-registration-agreement/
3	J0454 webpage	https://dtc.mrasco.com/DataItem.aspx?ItemCounter=454
3	J0455 webpage	https://dtc.mrasco.com/DataItem.aspx?ItemCounter=0455&searchMockItems=False
4	Data Transfer Network	https://www.electralink.co.uk/services/data-transfer-network/
4	Webpage for CP1496	https://www.elexon.co.uk/change-proposal/cp1496/
4	ISG meeting 201	https://www.elexon.co.uk/meeting/isg-201/
4	SVG meeting 204	https://www.elexon.co.uk/meeting/svg-204/

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