

ELEXION

**CP1586 ‘Defining the requirements for
minimum burden and CT ratios’**

Assessment Report - ISG
[Classification – Public]

Ayo Bammeke

9 January 2024

- **CT Ratio Importance:** The accuracy of energy settlement heavily relies on the appropriate selection of Current Transformer (CT) ratios.
- **Mismatched Ratios:** In some instances, the chosen CT ratios don't align with the circuit's maximum current, leading to potential inaccuracies.
- **Load Conditions Impact:** When the load conditions of a circuit consistently operate below 1% of the rated primary current (I_r), it raises concerns about the precision of the Active Energy data.
- **Metering System Deviations:** There are cases where Metering Systems don't adhere to their designated parameters, especially when they stray from the 25%-100% rated burden range, which can introduce potential inaccuracies.

- **Guideline Refinement:** We aim to enhance the guidelines in CoPs 1, 2, 3, 5 and 10 to account for a comprehensive range of operating conditions, ensuring consistent accuracy across varying scenarios.
- **CT Primary Current Value:** The selection of the CT's primary current value is paramount. It's essential to choose a value that guarantees the Rated Measuring Current remains within the 1% to 120% range under all operational conditions.
- **Addressing Burden Issues:** To maintain the accuracy of energy measurements, it's crucial to address the burden in measurement transformers. The solution proposes the possibility of introducing an additional burden to the secondary side of these transformers when needed.
- **Ensuring Overall Accuracy:** By implementing these measures, we aim to ensure that the total burden remains within the 25% to 100% range of the rated output, adhering to the specified limits of ratio error and phase displacement.

CP1586: Assessment Consultation responses

Question	Yes	No	Neutral	Other
Do you agree with the CP1586 proposed solution?	3	2	0	0
Do you agree that the draft redlining delivers the intent of CP1586?	4	1	0	0
Will CP1586 impact your organisation?	4	0	1	0
Will your organisation incur any costs in implementing CP1586?	3	0	2	0
Do you agree with the proposed implementation approach for CP1586?	4	1	0	0
Do you believe CoP10 should be incorporated into the scope of CP1586 for Metering Systems using Current Transformers?	2	1	2	0
Do you have any further comments on CP1586?	2	1	2	0

- We received 5 responses to the Consultation, three Supplier Agents, one Distributor and one Interconnector user
- The majority of respondents were in support of CP1586
- Inclusion of CoP10 following feedback, reflecting industry-wide adoption of ‘S’ class items

CP1586: Recommendations

We invite the ISG to:

- a) **AGREE** the proposed changes to the redlining for Codes of Practice (CoPs) 1, 2, and 3;
- b) **APPROVE** the proposed changes to Codes of Practice (CoPs) 1, 2, and 3 for CP1586;
- c) **APPROVE** CP1586 for implementation on 29 February 2024 as part of the standard February 2024 Release; and
- d) **NOTE** that CP1586 will also be presented for decision to the:
 - SVG on 9 January 2024

ELEXION

**CP1588 ‘Mandating Calibration Checks for
Check and Main Meters’**

Assessment Report – ISG
[Classification – Public]

Anshu Choudhary

9 January 2024

- **Importance of Calibration:** Code of Practice (CoP) 4 details the requirements for calibration, testing and commissioning of Metering Equipment used for Settlement purposes
- **Risk to Settlement :** There is a lack of industry reporting to confirm whether Meter calibration checks are being carried out on the relevant Metering Equipment which poses a risk to Settlement where a lack of data being reported does not allow any analysis to highlight concerns about Meter accuracy to be carried out
- **Certification Period:** CoP4 specifies that for CoP3 and CoP5, after the initial calibration of the Meter pre-installation, there isn't a requirement for a periodic calibration until year 15 for a Type B and year 20 for a Type C. With the low level of capital expenditure, compared to calibration testing, for CoP3 and CoP5 compliant Meters Registrants and Meter Operator Agents (MOAs) are choosing to replace the Meter prior to year 15, or year 10 if subject to a certification period rather than perform a periodic calibration
- **Lack of data on Performance:** As a consequence of this Elexon (BSCCo) has no data on the performance of the Meter, in terms of the errors and the drift from the initial calibration, to determine if there is a risk to Settlement posed by the use of a particular Meter Type
- **Long term accuracy challenges:** No process for Elexon to follow in BSCP601 to take action should it be identified that there is an issue with the long term accuracy of a particular Meter Type or, as required, notify the Office of Product Safety and Standards in the Department for Business and Trade where the Meter Type is on Schedule 4 of Electricity Act 1989

- **Mitigating settlement risk:** This CP will provide an assurance process to confirm whether a Meter Type is still operating within the allowed accuracy limits or is drifting towards, or beyond, the extreme end of the limits. It will also define the steps to be taken where an issue is identified mitigating the risk to Settlement
- **End of life sample calibrations:** This CP will look to create a new section 5.2A in CoP4 to detail the requirements and timescales for end of life sample calibrations. These will focus on Meter Types used in [CoP3](#) and [CoP5](#) Metering Systems
 - The CoP4 end of life sample testing population ranges and sample sizes will be based on the population of a Meter Type an individual Meter Operator Agent is responsible for.
- **Identify the volume of Meter types:** Should this CP be approved Elexon will develop a process to identify the volumes of Meter Types a MOA is responsible for in CoP3 and CoP5 and develop a technique to analyse calibration test results to make an assessment, and if required a recommendation, on the accuracy performance of a Meter Type.

CP1588: Assessment Consultation responses

Question	Yes	No	Neutral	Other
Do you agree with the CP1588 proposed solution?	3	0	0	0
Do you agree that the draft redlining delivers the intent of CP1588?	3	0	0	0
Will CP1588 impact your organisation?	2	1	0	0
Will your organisation incur any costs in implementing CP1588?	2	1	0	0
Do you agree with the proposed implementation approach for CP1588?	3	0	0	0
Do you have any further comments on CP1588?	1	2	0	0

- We received 3 responses to the consultation, all of them were Supplier agents
- All the responses were unanimously in support of CP1588

CP1588: Recommendations

We invite the ISG to:

- a) **APPROVE** the proposed changes to BSCP601 and, CoP4 for CP1588; and
- b) **APPROVE** CP1588 for implementation on 29 February 2024 as part of the February 2024 Release
- c) **NOTE** that CP1588 will also be presented for decision to the:
 - SVG on 9 January 2024

ELEXION

CP1587 'Obsolete Metering Equipment'

Assessment Report

Public

Jacob Snowden

09/01/2024

CP1587: Background and Issue

Background

- This CP came from [Issue 93 'Review of the BSC metering Codes of Practice'](#) and corresponds with Aspect 16: Obsolete Metering Equipment

Issue

- The BSC does not currently set out which Meter/Outstation Types are currently manufactured and whether supported or not in the Code of Practice (CoP) [Compliance Protocol Approvals](#) list
- There is also no process in [BSCP601 'Metering Protocol Approval and Compliance Testing'](#) for Elexon to check with Meter/Outstation manufacturers whether an approved Meter/Outstation Type is manufactured and supported
- Risk to Settlement where Meters/Outstations are installed, or continued to be left in service, where they are no longer supported or replacements unavailable.
- Similar issues apply to Data Collectors where they can no longer support a protocol for a particular Meter/Outstation Type or wish to withdraw from the market
- Additionally Elexon proposes to reduce administrative burden by removing the requirement to present an information paper to SVG and ISG as endorsed on 6 June 2023 (SVG/268 and ISG/266)

This CP will change [BSCP601 'Metering Protocol Approval and Compliance Testing'](#):

- Amend
 - 1.1 (Scope and Purpose of the Procedure);
 - 1.2 (Main Users of Procedure and their Responsibilities); and
 - 1.3 (Use of the Procedure) to define the new process and obligations on stakeholders.
- Add processes, 2.5 and 2.6, in Section 2 'Interface and Timetable Information' confirming whether Meter/Outstation types are still manufactured and/or supported and to notify Parties and Party agents
- Proposal to allow Elexon to raise a Metering Dispensation to allow unsupported Meter/Outstation Types to be installed where a fault occurs and the Meter/Outstation Type is still in the transition period for removal
- Remove the obligation to notify the Panel sub-Committees, via an information paper. However, still proposing to do so if this relates to an identified issue

CP1587: Assessment Consultation responses

Question	Yes	No	Neutral	Other
Do you agree with the CP1587 proposed solution?	3	1	0	0
Do you agree that the draft redlining delivers the CP1587 proposed solution?	4	0	0	0
Do you agree with the proposed implementation approach for CP1587?	3	1	0	0

Question	High	Medium	Low	None
Will CP1587 impact your organisation?	0	1	2	1
Will your organisation incur any costs in implementing CP1587?	0	1	1	2

- The majority of respondents agree with proposed solution and proposed implementation approach
- All respondents agree that the redlining delivers the intent of CP1587

CP1587: Additional change to BSCP601 redlining

- We propose expanding the title of BSCP601, Section 2.3 to include Data Retrieval Systems
- This should provide clarity to HHDCs that they need to contact BSCCo if they make changes to their data retrieval system (or an approved protocol that sits within it)

2.3 Amendment to Metering Equipment~~, or~~ Asset Metering Equipment or Data Retrieval System

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
2.3.1	At any time	Submit notification of amendment to Metering Equipment, Asset Metering Equipment or Data Retrieval system for an existing Approval and agree impact of change.	Applicant	<u>BSCCo</u>	Details and impact of change.	E-mail, Fax, Post.
2.3.2	Within 30 WD of 2.3.1 above.	Consult with affected Parties (if required) and determine whether Approval for the amendment to Metering Equipment, Asset Metering Equipment or Data Retrieval system can be given.	<u>BSCCo</u>	Affected Parties	Details and impact of change.	As agreed.
2.3.3	Within 5 WD of 2.3.3 above.	Notify Applicant of determination and if new Approval given, update Approval list (see section 3.2).	<u>BSCCo</u>	Applicant Parties Party Agents	<u>BSCCo</u> determination. Approval details. Approval details	E-mail, Fax, Post, BSC Website.
2.3.4	Next opportune meeting	Notify Panel of any updates to Approval list (see section 3.2).	BSCCo	Panel	Panel Report	Internal Process

CP1587: Recommendations

We invite the ISG to:

- a) **APPROVE** the amendments to the proposed redlining for BSCP601;
- b) **APPROVE** the proposed changes to BSCP601;
- c) **APPROVE** CP1587 for implementation on 29 February 2024 as part of the February 2024 Release; and
- d) **NOTE** that CP1587 will also be presented for decision to the SVG on 9 January 2024.

ELLEXION

**Compliance Approval – Honeywell Elster
A1700/i**

PUBLIC

09 January 2024

Background (CP1527) and Compliance Approval

- In June 2022, CP1527 changed:
 - CoPs 1, 2, 3, 5 and 10 to require 90 days of HH data per Outstation channel
 - CoPs 3, 5 and 10 to require Outstation to have selectable integration periods (30, 20, 15, 10 and 5 mins), in line with CoPs 1 and 2
 - BSCP601 to test for the new requirements (and existing CoPs 1 and 2 requirement for selectable integration periods)
- CP1527 incremented the Issue (and version) numbers by one – changes to Meter or Outstation requirements need to be confirmed under BSCP601.
- Honeywell/Elster Metering Limited (Honeywell/Elster) applied for compliance testing against the new Issues of the CoPs 2, 3 and 5, for the A1700/i integral Outstation Meter types (PB2 and PB3)
 - Honeywell submitted evidence to confirm the A1700/i already complies with the new Issues
- Elexon issued updated Certificates of Compliance to Honeywell/Elster in relation to the new Issues of CoPs 2 and 3
- Elexon to take a similar paper to the Supplier Volume Allocation Group (SVG) in relation to issuing Certificates of Compliance to Honeywell/Elster in relation to the new Issues of CoPs 3 and 5

Update and notification

- We recently published an updated version of the CoP Compliance and Protocol Approval list (v75.0) for these compliance approvals
- We also issued Newscast article notifying BSC Parties and BSC Agent about the compliance approvals.

Recommendations

We invite the ISG to:

- a) **NOTE** that Elexon has issued Honeywell/Elster Metering Limited (Honeywell/Elster), a Meter manufacturer, with updated Certificates of Compliance for its A1700/i integral Outstation Meter types (PB2 and PB3), against the new Issues of Codes of Practice (CoPs) 2 and 3;
- b) **NOTE** that Elexon has updated the 'CoP Compliance and Protocol Approval' list, and issued a Newscast article, about the compliance approvals; and
- c) **NOTE** that Elexon will present a similar paper to the Supplier Volume Allocation Group about issuing Certificates of Compliance to Honeywell/Elster for the A1700/i integral Outstation Meter types (PB2 and PB3), in relation to CoPs 3 and 5.