CP Progression Paper

CP1514 'Number of register digits for smart Meters'

Contents

About This Document

This document provides information on new Change Proposal (CP) CP1514 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 Supplier Volume Allocation Group (SVG) Members on this CP before we issue it for consultation.

There are four 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 CP1514 proposal form.
- Attachments B and C contain the proposed redlined changes to deliver the CP1514 solution.

Committee

Supplier Volume Allocation Group

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1 Why Change?

Background

Following the implementation of Smart Energy Code (SEC) Modification SECMP0006 on 8 November 2018, Electricity Smart Metering Equipment (ESME) and Gas Smart Metering Equipment (GSME) will display a specified subset of digits from their Consumption Registers on their User Interfaces (UI). As a result the number of register digits on a smart Meter's display (when converted from Wh to kWh) has reduced from seven to five for single phase electricity Meters and from seven to six for polyphase electricity Meters.

Single Phase Electricity Meters

Single phase electricity is connected at either 230 or 240 volts via two wires, active and neutral, and is found in most domestic settings.

Polyphase Electricity Meters

A polyphase system is a means of distributing alternating current electrical power where the power transfer is constant.

The Master Registration Agreement (MRA) intends to implement a change to the Meter Technical Details (MTD) in June 2019 such that the number of digits in the internal Meter register is consistent with those displayed on the UI. However, the Meter will still hold more digits than specified in the MTD. Although the MRA change will provide a consistent view of the number of digits on the UI, it does not address the issue of readings being retrieved containing more digits than specified in the MTD. This could result in valid readings being rejected or in erroneous Meter Advances being calculated.

What is the issue?

The Balancing and Settlement Code (BSC) does not provide for this scenario. This is because if a read is lower than historical reads, as it may appear if a truncated reading is sent to the Data Collector (DC), it would be invalidated (most of the time). This would mean a working smart meter read could be prevented from entering settlement and the use of an estimate in its place. Furthermore, there are general obligations in BSC Procedure (BSCP) 504 'Non Half Hourly Data Collection for SVA Metering Systems Registered in SMRS' and BSCP514 'SVA Meter Operations for Metering Systems Registered in SMRS' that could result in reads failing validation or being misinterpreted, causing erroneous data to enter Settlement.

CP1253 'Remote Reading Assurance', implemented in the February 2009 BSC Release, introduced a requirement for Non Half Hourly Data Collectors (NHHDCs) to ensure that readings retrieved remotely are the same as readings on the display of the Meter. This requirement is no longer relevant following the approval of SECMP0006 and is, in any case, not applicable where readings are being retrieved from smart Meters by the Supplier, rather than the NHHDC.

2 Solution

Proposed solution

The proposed solution is to set out new rules for Suppliers and NHHDCs to ensure that the readings retrieved remotely from Smart Metering Equipment Technical Specification Two (SMETS2) compliant Meters are treated consistently with readings shown on the UI. This will instruct DCs and Suppliers how to treat Meter readings sent from [x] to [y] as parts of data flow (D0010) with more register digits (J0478)[1] than specified in their MTD (D0150[2], D0268[3]).

We propose to address the issue by amending BSCP504 in the following manner:

- Add a paragraph to section 1.1 (i) that clearly describes the Supplier's responsibility to ensure the number of register digits contained within Meter readings retrieved from Data and Communications Company (DCC)-serviced smart Meters is consistent with the number of digits specified in the MTD.
- Add a new validation rule to section 4.2 stating that if the DC receives readings with more digits than specified in the MTD, they should be treated as valid if the least significant digits (as specified in the MTD) are consistent with historical readings.
- Amend section 1.2.1 to clarify that:

  a) NHHDC is not responsible for retrieving readings from DDC-serviced Meters and that this is the responsibility of the Supplier; and

  b) Readings from SMETS2 compliant meters may be truncated in order for the number of digits to be consistent with the UI and MTD.

BSCP514 section 1.2 will be amended to include a rule for Meter Operator Agents (MOAs) in the event that they use hand-held devices to retrieve readings from a smart Meter's internal registers, rather than relying on a visual reading from the display. This rule will state that DCC-serviced SMETS2 Meter readings should be consistent with the number of register digits specified in the MTD and displayed on the UI.

Proposer's rationale

Inconsistencies between readings taken remotely and those taken locally could result in readings failing validation or being misinterpreted causing erroneous data to enter Settlement. This Change would add more clarity and consistency across industry, therefore reducing the risk of error.

Proposed redlining

Attachments B and C contain the proposed changes to BSCP504 and BSCP514, to deliver CP1514.

Smart Metering Equipment Technical Specifications

SMETS is the industry standard that specifies how smart Meters work, and in particular how the Meter connects to, and communicates with the Supplier.

[1] Number of Register Digits.
[2] Non Half Hourly Meter Technical Details
[3] Half Hourly Meter Technical Details

3 Impacts and Costs

Central impacts and costs

Central impacts

Document only changes will be required to deliver the CP15XX solution.

Central Impacts	
Document Impacts	System Impacts
• BSCP504 - 'Non Half Hourly Data Collection for SVA Metering Systems Registered in SMRS' • BSCP514 - 'SVA Meter Operations for Metering Systems Registered in SMRS'	• No BSC Central System Impacts

Central costs

The central implementation costs for CP1514 will be approximately £360 (one and a half ELEXON Working Days (WDs)) of effort to implement the necessary document changes.

BSC Party & Party Agent impacts and costs

The table below outlines the anticipated impacts on market participants as a result of CP1514. We will seek to confirm market participant impacts through the CP Consultation.

BSC Party & Party Agent Impacts	
BSC Party/Party Agent	Impact
Supplier	Will need to truncate any Meter reading retrieved from a DCC-serviced SMETS2 compliant Meter where the reading has a greater number of register digits than specified in the MTD.
NHHDC	Will need to change their validation such that, if a Supplier does not truncate a reading, the NHHDC can validate if the least significant digits are consistent with the Meter reading history.

4 Implementation Approach

Proposed Implementation Date

CP1514 is proposed for implementation on 27 June 2019 as part of the June 2019 BSC Release.

The June 2019 BSC Release is the next available Release following the expected approval date that can include this CP.

5 Proposed Progression

Progression timetable

The table below outlines the proposed progression plan for CP1514:

Progression Timetable	
Event	Date
CP Progression Paper presented to SVG for information	8 Jan 2019
CP Consultation	11 Feb 19 – 8 Mar 19
CP Assessment Report presented to SVG for decision	2 Apr 2019
Proposed Implementation Date	27 June 2019

CP Consultation questions

We intend to ask the standard CP Consultation questions for CP1514. We do not anticipate any additional questions need to be asked for this CP.

Standard CP Consultation Questions
Do you agree with the CP1514 proposed solution?
Do you agree that the draft redlining delivers the CP1514 proposed solution?
Will CP1514 impact your organisation?
Will your organisation incur any costs in implementing CP1514?
Do you agree with the proposed implementation approach for CP1514?
Do you have any further comments on CP1514?

6 Recommendations

We invite you to:

- **NOTE** that CP1514 has been raised;
- **NOTE** the proposed progression timetable for CP1514; and
- **PROVIDE** any comments or additional questions for inclusion in the CP Consultation.

Appendix 1: Glossary & References

Acronyms

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

Acronyms	
Acronym	Definition
BSC	Balancing and Settlement Code
BSCP	Balancing and Settlement Code Procedure
CP	Change Proposal
CPC	Change Proposal Circular
DC	Data Collector
DCC	Data and Collection Company
ESME	Electricity Smart Metering Equipment
GSME	Gas Smart Metering Equipment
kWh	Kilo Watt Hour
MRA	Master Registration Agreement
MTD	Meter Technical Details
NHHDC	Non Half Hourly Data Collectors
SEC	Smart Energy Code
SMETS2	Smart Metering Equipment Technical Specification two
SVA	Supplier Volume Allocation
SVG	Supplier Volume Allocation Group
UI	User Interface
WD	Working Day
WH	Watt Hour

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
D0010	Meter Readings
D0150	Non Half-hourly Meter Technical Details
D0268	Half Hourly Meter Technical Details
J0478	Number of Register Digits

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.

External Links		
Page(s)	Description	URL
2	Smart Energy Code (SEC) Modification SECMP0006	https://smartenergycodecompany.co.uk/modifications/specifying-the-number-of-digits-for-device-display/
2	BSC504 - Non Half Hourly Data Collection for SVA Metering Systems Registered in SMRS	Non Half Hourly Data Collection for SVA Metering Systems Registered in SMRS
2	BSCP514 - SVA Meter Operations for Metering Systems Registered in SMRS'	SVA Meter Operations for Metering Systems Registered in SMRS'
2	CP1253 - Remote Reading Assurance	'Remote Reading Assurance'
2	The Master Registration Agreement	The Master Registration Agreement