SEC
Smart Energy Code

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Smart Energy Code

MP093

'Implementing IRP511 and CRP535 to support GBCS v3.2 devices'

Modification Report

Version 0.2

About this document

This document is a draft Modification Report. It currently sets out the background, issue, solution, impacts, costs, implementation approach and progression timetable for this modification, along with any relevant discussions, views and conclusions. This document will be updated as this modification progresses.

Contents

This document also has three annexes:

- **Annex A** contains the business requirements for the solution.
- **Annex B** contains the redlined changes to the SEC required to deliver the Proposed Solution.
- **Annex C** contains the DCC Preliminary Assessment response

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1. Summary

This proposal has been raised by Chun Chen from the Data Communications Company (DCC).

In July 2019, the Department for Business, Energy and Industrial Strategy (BEIS) designated an uplift of Smart Energy Code (SEC) Schedule 8 'Great Britain Companion Specification' (GBCS) to version 3.2 as part of the November 2019 SEC Release.

In order to fully deliver the functionality of two resolution proposals included in GBCS v3.2 (IRP511 'Set Clock Alerts Refs in Alert Tables Incorrect' and CRP535 'Restoring Removed Devices from the HAN'), consequential changes are now required to Appendix AD 'DCC User Interface Specification' (DUIS) and Appendix AF 'Message Mapping Catalogue' (MMC) schemas.

The amendments to the schemas had been intentionally left out of the November 2019 SEC Release in order to reduce any potential impact on testing for the Smart Metering Equipment Technical Specifications 1 (SMETS1) Initial Operating Capacity (IOC).

The estimated cost to deliver this modification in the November 2020 Release is £245,000. It is believed that MP093 should not have a direct impact on SEC Parties, but will enable Parties to use the full functionality of the resolution proposals that are already in GBCS.

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2. Issue

Agreed approach to implementing two BEIS resolution proposals

In May 2019 BEIS issued a consultation "SMIP_CR_085 – Uplift of GB Companion Specification (GBCS) and SMETS2 to support Emergency Credit changes". The consultation set out a number of amendments that were due to be designated for implementation in November 2019.

Part of the changes consulted upon was an uplift of GBCS to v3.2 and subsequent changes to the Technical Specification Applicability Tables (TSAT) to mandate an Applicability Period Start Date for GBCS v3.2 of 7 November 2019 (November 2019 SEC Release).

The DCC's response to the consultation set out that two resolution proposals (RPs) would not be fully delivered in November 2019:

- **Issue Resolution Proposal (IRP) 511 'Set Clock Alerts Refs in Alert Tables Incorrect'** which introduces the Set Clock Alert 0x81C6 to the Event log to allow Users to identify the need for Home Area Network (HAN) Device fault correction; and

- **Change Resolution Proposal (CRP) 535 'Restoring Removed Devices from the HAN'** which allows Users to use Service Request SR8.9 'Read Device Log' to read the Communications Hub Function (CHF) device log. The log contains the active and historical Device which allows Users to know which historical Device has been removed from the HAN so that it could be restored if required.

Both RPs required amendments to the schemas for Appendix AD 'DCC User Interface Specification' (DUIS) and Appendix AF 'Message Mapping Catalogue' (MMC). It had been previously agreed between the DCC and BEIS (in December 2018) that changes to these schemas would not happen in November 2019 in order to avoid any complexities with the SMETS1 IOC. Therefore, the full functionality of the two resolution proposals would be delivered in November 2020.

As such the scope of the two RPs in the November 2019 SEC Release was as follows:

- **IRP511** - DCC Systems will be amended to support the new Alert code in the response. However, capability for Users to configure the Alert and Parse & Correlate (P&C) to translate this Alert into meaningful English is not in the scope for delivery in November 2019.

- **CRP 535** - Implementing the Communications Hub (CH) removal log is in scope. However, capability for Customers and Users to retrieve the removal log is not in scope for delivery in November 2019.

On 4 July 2019 BEIS designated GBCS v3.2 for implementation in the November 2019 SEC Release. Therefore, to enable the planned changes, this Modification Proposal has been raised to introduce the remaining functionality into DUIS and MMC.

What is the impact this is having?

Without the required changes to Data Service Provider (DSP) systems and P&C needed for IRP511, Users will be unable to configure the Alert, and the response returned by P&C will not be meaningfully translated in English. Equally, without the changes relating to CRP535 the Historic Device Log on the CHF cannot be read for diagnostic purposes during Installation and Configuration (I&C).

The DSP and the P&C part of the IRP511 and CRP535 will allow the full use of functionality in the GBCS3.2 and SMETS2 v4.2 devices.

3. Solution

Proposed Solution

In order to implement the functionality for IRP511 and CRP535 changes are required to the DSP and P&C to provide capability for Users to configure this Alert and use their full functionality. To achieve this, the DUIS and MMC Schemas must be amended.

The business requirement for the solution can be found in Annex A.

IRP511

IRP 511 introduces the Set Clock Alert 0x81C6 to the Event log to allow Users to identify the need for HAN Device fault correction. DUIS changes are required to add support for 0x81C6 in the following Service Request Variants (SRVs):

- 6.22 'Configure Alert Behaviour'

- 6.2.10 'Read Device Configuration (Event and Alert Behaviours)'

If an attempt is made to configure 0x81C6 using SRV 6.22 on a Device running on a version of GBCS prior to v3.2, the Service Request will be rejected using the existing error code E062203. No changes are required to SRVs 6.11 'Synchronise Clock' or 6.13 'Read Event Or Security Log'.

CRP535

This CRP is primarily a change to CHF processing for adding and removing devices to/from the CHF device log. However, the CHF processing change involves creation of a history of previous device log entries and a new GBCS Use Case CCS07 is introduced to allow the current and historic device log entries to be read by the User.

DUIS changes will be modified to add support for the new Use Case CCS07 in the following SRV:

- 8.9 'Read Device Log'

If the SR contains the optional input parameter 'ReadHistoric' and is targeted at a CH running on a version of GBCS v3.2 or later then the new GBCS Use Case CCS07 will be used. If the SR does not include the optional input parameter 'ReadHistoric', then the existing GBCS Use Case CCS06 will be used.

If the SR contains the input parameter 'ReadHistoric' and the target device does not support CCS07 yet (i.e. the device runs on an earlier GBCS version than v3.2), then the Service Request will be rejected using a new error code.

The SRVs 8.11 (Add) and 8.11 (Remove) are not expected to undergo any changes due to CRP535.

Parse & Correlate

Changes to the P&C application will include:

- Add new GBCS Use Case 'CCS07 Read CHF Device Logs

- Update the existing GBCS Use Cases related with SR6.22 and SR6.2.10

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- New DUIS / MMC schema deployment

- Add test cases to exercise the changes

- Documentation updates and release tasks

4. Impacts

This section summarises the impacts that would arise from the implementation of this modification.

SEC Parties

SEC Party Categories impacted			
✓	Large Suppliers	✓	Small Suppliers
✓	Electricity Network Operators	✓	Gas Network Operators
✓	Other SEC Parties	✓	DCC

MP093 should not have a direct impact on SEC Parties, but will enable Parties to use the full functionality of the resolution proposals that are already in GBCS.

DCC System

Changes will be required to DUIS, MMC, DCC User Gateway Interface Design Specification (DUGIDS) and GBCS. The full impacts on DCC Systems and DCC's proposed testing approach can be found in the DCC Preliminary Assessment response in Annex C.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Schedule 8 'GB Companion Specification'
- Appendix AD 'DCC User Interface Specification'
- Appendix AF 'Message Mapping Catalogue'

The changes to the SEC required to deliver the proposed solution can be found in Annex B.

Other industry Codes

There are no identified impacts on other industry Codes.

Greenhouse gas emissions

There are no identified impacts on greenhouse gas emissions.

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5. Costs

DCC costs

The estimated DCC implementation costs to implement this modification is £245,000. This cost covers delivery up to the end of Pre-Integration Testing (PIT); the full costs for Systems Integration Testing (SIT), User Implementation Testing (UIT) and go-live will be provided in the Impact Assessment response. There is no breakdown of costs at this stage as only the Preliminary Assessment has been complete.

SECAS costs

The estimated Smart Energy Code Administrator and Secretariat (SECAS) implementation costs to implement this modification is two days of effort, amounting to approximately £1,200. The activities needed to be undertaken for this are:

• Updating the SEC and releasing the new version to the industry.

SEC Party costs

Information on costs for Parties will be gathered in the Refinement Consultation.

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6. Implementation approach

Recommended implementation approach

SECAS is recommending an implementation date of:

- **26 November 2020** (November 2020 SEC Release) if a decision to approve is received on or before 27 May 2020.

This date aligns with the next major update to DUIS and therefore is recommended as the most efficient date to implement the changes. It also aligns with previous discussions between BEIS and the DCC, and the DCC's estimated lead time of 6-8 months to implement the changes. Therefore, no fall back date is being recommended. This may change depending on when the Impact Assessment is returned and the lead time required by Parties and the DCC to deliver the changes.

7. Assessment of the proposal

Observations on the issue

The Change Sub Committee understand the clear rationale for the change. It also noted that as part of the modification progression consideration needs to be given to what if any impacts there will be of Parties as part of the update and when it will be scheduled. These will be sought during the Refinement Consultation.

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Appendix 1: Progression timetable

This modification will be issued for consultation on 17 February 2020. A full DCC Impact Assessment will be requested at the Change Board meeting on 26 February 2020, in order to facilitate a decision on MP093 in time for inclusion in the November 2020 SEC Release. If this timetable is not met the implementation dates may have to be revisited.

Progression timetable	
Activity	**Date**
Draft Proposal raised	28 Oct 19
Presented to Change Sub-Committee	28 Oct 19
Preliminary Assessment	18 Nov 19 – 21 Jan 20
Refinement Consultation	17 Feb – 6 Mar 20
Request Impact Assessment approval	26 Feb 20

Appendix 2: Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	**Full term**
BEIS	Department for Business, Energy and Industrial Strategy
CH	Communications Hub
CHF	Communications Hub Function
CRP	Change Request Proposal
DCC	Data Communications Company
DSP	Data Service Provider
DUGIDS	DUIS Gateway Interface Design Specification
DUIS	DCC User Interface Specifications
GBCS	Great Britain Companion Specification
HAN	Home Area Network
I&C	Installation and Configuration
IOC	Initial Operating Capability
IRP	Issue Resolution Proposal
MMC	Message Mapping Catalogue
P&C	Parse and Correlate
PIT	Pre-Integration Testing
SIT	Systems Integration Testing
SMETS	Smart Metering Equipment Technical Specification
TSAT	Technical Specification Applicability Tables
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
UIT	User System Integration