SEC
Smart Energy Code

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DP158

'Incorporation of multiple Issue Resolution Proposals into the SEC – Batch 5'

Modification Report

Version 0.2

18 May 2021

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About this document

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

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1. Summary

This proposal has been raised by David Walsh from the Data Communications Company (DCC)

Issue Resolution Proposals (IRPs) identify and resolve issues in the Technical Specifications documents of the Smart Energy Code (SEC). The 15 IRPs contained in this document have been confirmed as not being DDC System impacting, nor will they require DCC System testing. The Technical Specification Issue Resolution Sub-group (TSIRS) has requested these be progressed as a Modification Proposal for implementation into the SEC. Implementation of these IRPs will ensure Devices operate as they are intended.

2. Issue

What are the current arrangements?

IRPs identify issues within the SEC Technical Specification documents and put forward a solution to the identified problem. In the early stages of the Smart Metering Implementation Program, the Department for Business, Energy and Industrial Strategy (BEIS) took the lead in developing the SEC Technical Specifications. As part of this, BEIS also took responsibility for receiving and responding to issues raised internally, by the DCC, and by other interested parties. Since its inception, several hundred issues have been raised in relation to Technical Specifications through the Technical Specification Issue Resolution Sub-group (TSIRS). In some cases, these queries have been resolved by providing an explanation of the Specifications, whilst others have resulted in proposed amendments to the Specifications in the form of IRPs.

What is the issue?

The IRPs included in this proposal, listed below, require changes to the Great Britain Companion Specification (GBCS) and the Smart Metering Equipment Technical Specifications (SMETS) with initial key impacts identified by SECAS in the table below.

IRP Number	What is the issue?	What is the Impact?
IRP610	Currently, there is inconsistency in the elements which are included in the Electricity Smart Metering Equipment (ESME) within the GBCS. The twin element meter section within the ESME is missing a measuring element which needs to be included so the consumption of energy is measured accurately.	The twin element meter in an ESME is unable to measure the consumption of energy accurately.
IRP615	There is a discrepancy in the command used to capture the value of weekly, daily, and hourly energy consumption between the GBCS and the Great Britain Zigbee (GBZ).	The GBZ consists of a zero-week profile which is causing a misalignment between the Technical Specification.

IRP Number	What is the issue?	What is the Impact?
IRP618	Currently, the Publish Calendar ZigBee message is on an aggregate Energy Service Interface (EGI) which cannot apply message content to the individual endpoints of a Twin Element meter.	The data pertaining to primary and secondary elements cannot be individually applied to the EGI.
IRP619	Currently the Wide Area Network (WAN) and Home Area Network (HAN) latency can cause a Device to not receive a General Block Transfer (GBT) message sequentially.	In this instance, resend requests (from the Device) can cause the Device to end up receiving part of a message that has already been processed by the Device. The IRP clarifies the expected behaviour of the Device in this instance.
IRP621	Currently, an ESME and a Gas Smart Metering Equipment (GSME) receiving a message from the Pre-Payment Interface Device (PPMID) is missing an instruction to follow when authentication checks which are performed on the message fail.	This missing word from the instruction is causing ambiguities in the instance of an ESME or GSME performing an authentication check when the message fails. Adding the missing text will ensure clarity and consistency across the specifications.
IRP622	Currently, there is no clarification in the SMETS that GBCS Alert 0x8F33 ‘Supply Disabled then Armed - Load Limit triggered’ is required to be generated and sent.	Without this clarification there is ambiguities in expected Device behaviour and an inconsistency between the SMETS and the GBCS.
IRP624	Currently, there are Two terms (Common Name term and Supplier Name term) which are missing from the GBCS glossary.	The two missing terms are causing inconsistency and require adding in to the GBCS to correct any potential confusion.
IRP625	This IRP aims to mandate that, after processing a Top-Up command, the GSME needs only to send details of that Top-Up to the Gas Proxy Function (GPF) and does not need to send details of the latest five Top-Ups.	In doing so, bandwidth and processing time are saved.
IRP626	Currently, there is an incorrect reference in the GBCS. The IRP aims to correct the 'keyUsage' field of references of the Trust Anchor Cell to be used during a specific mode of credential replacement on the Device.	This is causing a discrepancy; the IRP aims to align GBCS root Certificates with those allowed under the Smart Metering Key Infrastructure (SMKI) Organisation Certificate Policy.
IRP627	This is the same issue as IRP 622.	This is the same issue as IRP 622.
IRP628	Currently, in the GBCS the flag mandated against each entry in the Unique Transaction Reference Number (UTRN) Counter Cache does not enable or serve any mandated external behaviour.	This IRP proposes the removal of this flag, so implementations are restricted to what is strictly necessary.

IRP Number	What is the issue?	What is the Impact?
IRP629	There are various points requiring corrections and clarifications which have been identified since baselining GBCS v4.0 Draft 2 and SMETS2 v5.0 Draft 3.	This is an inconsistency, and the intention of this IRP is to add detail and resolution to the points identified, so that organisations wishing to develop Devices against GBCS v4.0 have maximum clarity.
IRP632	There are various typographical changes (concerning Auxiliary Controller related scripts) in the GBCS v4.0 Draft 2 which require correcting.	These typographical errors are causing inconsistency. No parties are expected to be impacted with this IRP change to amend these typographical errors.
IRP633	A requirement specified as applying to the Communications Hub Function (CHF) Security Log in the DLMS Device Requirements applies generally to all Companion Specification for Energy Metering (COSEM) based security logs.	The limitation is causing inconsistency and this IRP change is a requirement to apply the requirement more broadly.
IRP635	There is a typographical error which requires clarifying. This IRP will clarify that the expected response to an error in a' Join Device' command is a 'Join Device' response, and not an 'Issue Security Credentials' response.	This is causing inconsistency and this typographical change will ensure correct Device behaviour in a specific command instance.

Please note IRP631 and IRP623 have been removed from this batch of IRPs as they contained changes against GBCS v3.x series.

Impact on consumers

There is no impact to consumers.

The individual IRP details can be found on the SECAS website link here DP158 'Incorporation of multiple Issue Resolution Proposals into the SEC - Batch 5' under document name 'DP158 Incorporation of multiple Issue Resolution proposal into the SEC – Batch 5 IRP Details'.

IRPs included in DP156						
IRP Number	**IRP title**	**Impacted Technical Specification**	**Impacted Users**	**Devices Impacted**	**Complexity**	**Notes**
IRP610	Inconsistency in Mapping Table refs for Twin Element ESME	GBCS v4.x	None	None	Low	This is a document consistency change
IRP615	GCS05 Discrepancy in specifications	GBCS v4.x	None	None	Low	This is a document consistency change
IRP619	GBT blocks from old Messages	GBCS v4.x	None	None	Low	This is a document consistency change
IRP621	HAN Only Command Validation by the ESME-GSME - GBCS Error 3	GBCS v4.x	None	None	Low	This is a document consistency change
IRP622	Mechanism to enable supply from an armed state 2	GBCS v4.x	Device (ESME) manufacturers	ESME	Low	This is a document consistency change
IRP624	Common Name Supplier Name missing from GBCS Glossary 3	GBCS v4.x	None	None	Low	This is a document consistency change
IRP625	GBCS Publish Top Up Log Command 3	GBCS v4.x	None	None	Low	This is a document consistency change
IRP626	Query references to Trust Anchor Cell in Sec 13.3.5.8.1 3	GBCS v4.x	None	None	Low	This is a document consistency change
IRP627	Alert Code 0x8F33 reference in SMETS 3	ESMETS	None	None	Low	This is a document consistency change
IRP628	Inconsistency in IRP461 - GBCS v3.2 sec 14.3.7 3	GBCS v4.x	None	None	Low	This is a document consistency change
IRP629	Addressing various points raised on GBCS 4.0 & SMETS 5.0	GBCS v4.x SMETS2	None	None	Low	This is a document consistency change

IRPs included in DP156						
IRP Number	**IRP title**	**Impacted Technical Specification**	**Impacted Users**	**Devices Impacted**	**Complexity**	**Notes**
IRP632	GBCS v4 - 7.3.6.1 & determining auxiliary controller (pt1)	GBCS v4.x	None	None	Low	This is a document consistency change
IRP633	GBCS T7.3.8 Security Log Label correction	GBCS v4.x	None	None	Low	This is a document consistency change
IRP635	GBCS 13.7.4.2.2 reference correction	GBCS v4.x	None	None	Low	This is a document consistency change
IRP618	Twin Element Calendar Server Support	GBCS v4.x	None	None	Low	This is a document consistency change

Please note IRP631 and IRP623 have been removed from this batch of IRPs as they contained changes against GBCS v3.x series.

Appendix 1: Progression timetable

SECAS will present this Draft Proposal to the Change Sub-Committee (CSC) for initial comment on 30 March 2021.

Timetable	
Event/Action	**Date**
Draft Proposal raised	21 Jan 2021
Presented to CSC for initial comment	30 Mar 2021
Present to CSC for final comment	25 May 2021
Panel converts Draft Proposal to Modification Proposal	18 Jun 2021
Modification Report Consultation	21 Jun – 9 Jul 2021
Change Board vote	28 Jul 2021

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**
ALCS	Auxiliary Load Control Switch
BEIS	Department of Business, Energy and Industrial Strategy
CHF	Communications Hub Function
CSC	Change Sub-Committee
CSP	Communication Service Provider
COSEM	Companion Specification for Energy Metering
DBCH	Dual Band Communications Hub
DCC	Data Communications Company
DLMS	Device Language Message Specification
DUIS	DCC User Interface Specification
EGI	Energy Service Interface
GBCS	Great Britain Companion Specification
GBT	General Block Transfer
GBZ	Great Britain Zigbee
GHz	Gigahertz
GPF	Gas Proxy Function
GSME	Gas Smart Metering Element
HAN	Home Area Network
HCALS	HAN Connected Auxiliary Load Control Switches
IRP	Issue Resolution Proposal
PPMID	Pre-Payment Interface Device
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SMETS	Smart Metering Equipment Technical Specifications
SMKI	Smart Metering Key Infrastructure
TABASC	Technical Architecture and Business Architecture Sub-Committee
TSIRS	Technical Specifications Issue Resolution Sub-group
TCSO	Trust Centre Swap Out
UTRN	Unique Transaction Reference Number
WAN	Wide Area Network