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MP078
**‘Incorporation of multiple Issue
Resolution Proposals into the
SEC - Part 2’**

Modification Report

Version 0.5



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.

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This document also has four annexes:

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

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1. Summary

This Proposal has been raised by Simon Trivella from British Gas.

Issue Resolution Proposals (IRPs) identify and resolve issues in the Technical Specifications documents of the Smart Energy Code (SEC). This is the first batch of IRPs that have been identified as Data Communications Company (DCC) System impacting to be progressed as a Modification Proposal for implementation into the SEC. Implementation of these IRPs ensures that Devices will operate as intended.

There are three IRPs included in this modification. Two (IRP 550 and IRP 604) are aimed at ensuring when the Gas Smart Metering Equipment (GSME) receives a message known as GCS20r (report event configuration) the GSME can respond. The third (IRP 603) is to ensure Devices such as the In Home display (IHD), Prepayment meter Interface Device (PPMID) and Consumer Access Devices (CADs) cannot access the security logs on the GSME or Electricity Smart Metering Equipment (ESME).

The Proposed Solution is to incorporate these IRPs into the SEC.

This modification will cost approximately £465,680 and require a six-month lead time up to the end of Pre-integration testing (PIT). It will impact Large Suppliers, Small Suppliers, Other SEC Parties and the DCC. Implementation is targeted for the June 2022 SEC Release, if approved as a Self-Governance Modification.

2. Issue

What are the current arrangements?

Issue Resolution Proposals

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?

IRP 550

Currently when a GSME receives a message from the Communications Hub known as GCS20r it reports the event configuration back to the Communications Hub, which in turn sends a Service Response to the DCC User. However, there are no instructions in the technical specifications (GBCS) on what response the GSME should give if it cannot send the information (for instance if it does not

have the data). This in turn means no Service Response will be received by the DCC User requesting the information.

IRP 604

This IRP has resulted from a typographical error in IRP 550.

IRP 603

Currently IHDs, PPMIDs and CADs on the Home Area Network (HAN) can request security log information from the GSME or ESME and can display this information to the consumer.

The IRPs included in this proposal, listed below, require changes to the GBCS with initial key impacts identified by SECAS in the table below.

What is the impact this is having?

IRP 550




No response will be received by the DCC User if the GSME does not hold the data, leaving the User unsure where the problem is



IRP 604

The IRP 550 solution has a typographical error which needs correcting for clarity.

IRP603

As things stand, the consumer could view the security log information, which could be a security risk.

IRPs included in MP078							
IRP number	IRP title	Impacted Technical Specification	IRP document	Impacted Users	Devices Impacted	Complexity	Notes
IRP550	GCS20r - Response when an error occurs	GBCS	 IRP550 GCS20r - Response when an eri	<ul style="list-style-type: none"> Gas Suppliers Device (GSME) manufacturers 	<ul style="list-style-type: none"> GSME 	Low	Limited / no impact on GS.
IRP603	Security Log display over HAN	SMETS & CHTS	 IRP603 Security Log display over HAN v0_	<ul style="list-style-type: none"> Import Supplier Gas Suppliers 	<ul style="list-style-type: none"> CHF GPF GSME ESME 	Low	Expected little impact on Users
IRP604	Query on IRP550 - Frame Control	GBCS	 IRP604 Query on IRP550 - Frame Contr	<ul style="list-style-type: none"> Gas Suppliers Device (GSME) manufacturers 	<ul style="list-style-type: none"> GSME 	Low	Limited / no impact on GS

IRPs removed from MP078 (incorporated into MP098) ¹							
IRP number	IRP title	Impacted Technical Specification	IRP document	Impacted Users	Devices Impacted	Complexity	Notes
IRP554	Future Dated command handling if activation in the Past	GBCS	 IRP554 Future Dated command handling if	<ul style="list-style-type: none"> Import Supplier Gas Suppliers Electricity Distributors Gas Transporter 	<ul style="list-style-type: none"> CHF SPF GSME ESME HICALCS 	Low	Likely no impact on Users. Potential impact on Devices.
IRP582	Read ALCS Event Log values	GBCS	 IRP582 Read ALCS Event Log values v0_1	<ul style="list-style-type: none"> Import Supplier 	<ul style="list-style-type: none"> ESME 	Low	Understood to align GBCS to current operation.

¹IRP554 and IRP582 are included in the planned BEIS led designation of CRP612 in the November 2020 SEC Release. Please see Section 3 for details.

3. Solution

Proposed Solution

IRP550

The Proposed Solution is to include instructions in the technical specifications for the case where the GSME does not have the necessary information.

IRP604

The Proposed Solution is to correct the typographical error.

IRP603

The Proposed Solution is to include instructions to ensure the security log information is not accessible by IHDs, PPMIDs and CADs.

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

Breakdown of Other SEC Party types impacted			
✓	Shared Resource Providers	✓	Meter Installers
✓	Device Manufacturers	✓	Flexibility Providers

Large Suppliers, Small Suppliers and Other SEC Parties are impacted as they would potentially require additional firmware for Devices. This would then require further testing from a User perspective. A new firmware which would require testing would incur costs around testing, piloting, and deployment.

A Large Supplier responded to the Refinement Consultation supporting the solution put forward and advised there are gaps that need to be corrected to ensure robustness of the specification. They noted the changes to the SMETS and the GBCS would have to be understood and further work would be required with their meter providers to produce a firmware that adheres to the new specification.

DCC System

The implementation of these IRPs will impact both Communication Service Providers (CSPs) and the Data Service Provider (DSP). The DCC has highlighted the following anticipated areas of impact:

- Parse & Correlate application
 - SMITEn Lite
- GBCS Integration Testing For Industry (GFI) tool
- SMITEn Lite
- CSP design and build activities
- Device Future Dated Command processing
- Transform Library
- Self Service Interface (SSI)

The full impacts on the DCC Systems and the DCC's proposed testing approach can be found in the DCC Preliminary Assessment response in Annex B.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Schedule 8 'Great Britain Companion Specifications'
- Schedule 9 'Smart Metering Equipment Technical Specifications 2'
- Schedule 10 'Communications Hub Technical Specifications'
- Schedule 11 'Technical Specifications Applicability Tables'

The changes to the SEC required to deliver the Proposed Solution can be found in Annex C.

Technical specification versions

As IRP 550 affects the functionality of the GSME the changes described in these IRPs will be applied to the most current version of the Technical Specifications as the next Sub-Version in that series. They will also be applied to the next anticipated Principal Version. The next anticipated uplift to the Technical Specifications is in the November 2021 SEC Release. Therefore, following the changes in November 2020 SEC Release, and assuming no further technical specification uplifts, this modification will likely require creation of GBCS v4.1 and v5.0 and GSME Technical Specification (GSMETS) v4.4.

Consumers

No impacts on Consumers have been identified.

Other industry Codes

No impacts on other industry Codes have been identified.

Greenhouse gas emissions

No impacts other Greenhouse gas emissions have been identified.

5. Costs

DCC costs

The estimated DCC implementation costs to implement this modification is £705,680 up to the end of PIT if this was implemented as a stand-alone modification. The post-PIT costs will be assessed as part of the DCC Impact Assessment.

The DCC estimates this cost would reduce by £240,000 if the modification was released alongside [SECMP0015 'GPF timestamp for reading instantaneous Gas values'](#) and [SECMP0056'IHD / PPMID Zigbee Attributes Available on the HAN'](#) due to the synergies across the testing phase. SECMP0015 and SECMP0056 are targeted for the June 2022 SEC Release. The DCC has proposed MP078 is released in June 2022 to take advantage of the projected cost savings. This would give a cost up to the end of PIT of £465,680.

The breakdown of these costs are as follows:

Breakdown of DCC implementation costs		
Activity	Standalone cost	Jun 22 Release costs
Design, Build and Pre-Integration Testing (PIT)	£705,680	£465,680
Systems Integration Testing (SIT)	TBC	TBC
User Integration Testing (UIT)	TBC	TBC
Implement to Live	TBC	TBC

More information can be found in the DCC Preliminary Assessment response in Annex B.

SECAS costs

The estimated 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.

Party costs

One respondent to the Refinement Consultation advised they would incur cost through testing of new firmware Devices, but no other information was provided.

6. Implementation approach

Recommended implementation approach

SECAS is recommending an implementation date of:

- **30 June 2022** (June 2022 SEC Release) if a decision is received on or before 30 April 2021.
- **3 November 2022** (November 2022 SEC Release) if a decision to approve is received after 30 April 2021 but on or before 3 September 2021.

The lead-time provided to make the DCC System changes to implement these IRPs is six to eight months up to the end of PIT. A further six months is then assumed for post-PIT stages, giving an estimated 14-month lead time. These timescales will be reviewed in the DCC Impact Assessment. The June 2022 SEC Release is the first SEC Release involving technical specification uplift which this modification could therefore be included in.

7. Assessment of the proposal

Observations on the issue

Views of the DCC

The initial views of the DCC, subject to a formal Impact Assessment, is that the IRPs included in MP078 are DCC System impacting IRPS which have been published but not yet incorporated into the GBCS.

Views of SEC Parties

The issues and the solutions have been discussed and agreed upon by the TSIRS. Although the TSIRS is a BEIS led group, various SEC Parties are represented. The TSIRS agreed the solutions and agreed they should be implemented into the SEC.

Views of Panel Sub-Committees

SECAS had worked closely with the Technical Architecture and Business Architecture Sub-Committee (TABASC) regarding the approach to implement these IRPs into the SEC. Upon this proposal being raised, the TABASC was notified. It asked whether another proposal would be raised for non-DCC System impacting IRPs. Subsequently, [DP098 'Incorporation of multiple Issue Resolution Proposals into the SEC - Batch 3'](#) was raised to implement the outstanding non-DCC System impacting IRPs into the SEC.

The Operations Group agreed this proposal should proceed, and requested to be updated if the list of IRPs changes at any stage.

Views of the Change Sub-Committee

The Change Sub-Committee (CSC) agreed that the Draft Proposal clearly outlined an issue that needed to be resolved. It recommended to the SEC Panel that the Draft Proposal be converted to a Modification Proposal and proceed to the Refinement Process.

The CSC wanted to clarify when the validity period would commence for the new versions of the Technical Specifications that would arise from this modification. SECAS advised that it would discuss this with BEIS, the DCC and the TABASC to establish this and coordinate with any non-SEC modification changes to the Technical Specifications. This will be clarified following the DCC Impact Assessment.

Solution development

The Working Group was made aware that IRP554 and IRP582 had been included in the draft legal text in [BEIS' Proportional Load Control consultations](#). The Working Group confirmed that it was happy for these two IRPs to be removed from this modification if the DCC was performing the necessary DCC System changes to accommodate these IRPs via the BEIS Proportional Load Control changes.

The Working Group questioned how this would work with the DCC User Interface Specification (DUIS) changes being consulted on in Q2 2020 as per the BEIS consultation. Until the DUIS changes are made the Users cannot use the functionality.

Additionally, the Working Group agreed that IRP604 could only be implemented at the same time as, or following, IRP550. Therefore, IRP604 (a non-DCC System impacting IRP) was included in this modification to ensure both IRPs are implemented at the same time.

Planned BEIS designation of CRP612

The DCC has confirmed to SECAS that the changes required to the DCC Systems to implement IRP554 and IRP582 are being worked on as part of the BEIS designation to incorporate CRP612 targeted for the November 2020 SEC Release. As these two IRPs will have the DCC System functionality available via the BEIS designation, they have been removed from MP078. Instead they will be implemented as part of MP098. This will allow the implementation of these two IRPs into the current Principal Versions of the Technical Specifications targeted for the November 2020 SEC Release (in tandem with the uplift of the next Principal Versions of the Technical Specifications). If the date of implementation of CRP612 is at a later date, they will not be implemented until CRP612 is implemented.

Support for Change

Working Group

The Working Group members agreed the issue was clear and should progress further. The Working Group members were supportive of IRP603, IRP604 and IRP550 being included in MP078.

SECAS presented the findings of the DCC Preliminary Assessment which included the cost for delivering the changes and services required to implement this modification was originally expected to be £1,700,000 and a full DCC Impact Assessment to cost £274,860 with a lead time of three to six months for the DSP and six to 12 months for the CSPs. The Working Group members noted the DCC Preliminary Assessment findings and questioned the high cost.

The DCC has been continuously challenging the cost with Service Providers since the first DCC Preliminary was presented to the Working Group. SECAS received the revised, most up to date DCC Preliminary Assessment on 18 November 2020 with the revised costs. This version can be found in Annex B.

Views against the General SEC Objectives

Proposer's views

The Proposer believes that MP078 would better facilitate SEC Objective (a)², as these IRPs resolve issues with the Technical Specifications which are the minimum requirements for Device manufacturers.

Industry views

Two responses were received from the Refinement Consultation. A Network Party supported the modification as it was not impacted by IRP550, IRP306 and IRP 604. A Large Supplier supported the solution put forward due to gaps which require correcting to ensure a robust specification. However, the Large Supplier did state it would be impacted if MP078 was implemented. It advised IRP603, IRP604 and IRP550 would require additional firmware for Devices which are not compliant to the current gaps. Changes to the GBCS and the SMETS would need to be understood and further discussions with meter providers would need to be conducted to produce firmware that adheres to the new specification. The Large Supplier did remain supportive of the MP078 and agreed the modification effectively facilitates the SEC Objectives.

² Facilitate the efficient provision, installation, operation and interoperability of smart metering systems at energy consumers' premises within Great Britain.

Appendix 1: Progression timetable

This Modification will be presented to the Change Board for a DCC Impact Assessment request. The DCC Impact Assessment findings will then be presented to the Working Group for discussion before the Modification Report is presented to the Panel.

Timetable	
Action	Date
Draft Proposal raised	10 Jul 2019
Presented to CSC for comment and recommendations	23 Jul 2019
Panel converts Draft Proposal to Modification Proposal	9 Aug 2019
First Preliminary Assessment requested	6 Sep 2019
First Preliminary Assessment returned	31 Dec 2019
Modification discussed with Working Group	5 Feb 2020
Refinement Consultation	17 Feb – 6 Mar 2020
Second Preliminary Assessment requested	16 Apr 20
Second Preliminary Assessment returned	3 Sep 2020
Updated Preliminary Assessment with cost information received	18 Nov 2020
Present to Change Board for DCC Impact Assessment request	25 Nov 2020

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 of Business, Energy and Industrial Strategy
CSC	Change Sub-Committee
CSP	Communication Service Provider
DCC	Data Communications Company
DSP	Data Service Provider
DUIS	DCC User Interface Specification
GBCS	Great Britain Companion Specification
IRP	Issue Resolution Proposal
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
TABASC	Technical Architecture and Business Architecture Sub-Committee
TSIRS	Technical Specifications Issue Resolution Sub-group