SEC
Smart Energy Code

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Smart Energy Code

MP078

'Incorporation of multiple Issue Resolution Proposals into the SEC - Part 2'

Modification Report

Version 0.4

16 September 2020

Corporate member of Plain English Campaign
Committed to clearer communication
592

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 Data Communications Company (DCC) Preliminary Assessment response.
- **Annex C** contains the redlined changes to the Smart Energy Code (SEC) required to deliver the Proposed Solution.
- **Annex D** contains the Refinement Consultation responses

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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 SEC. This is the first batch of IRPs that have been identified as 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.

The changes in the IRPs to the Technical Specifications will be migrated into the SEC along with the required DCC System changes.

All Parties will have an uplift to the new Technical Specification Versions. Suppliers may have additional testing associated with the changes that test IRPs make. The modification will cost approximately £680,000. If this is approved as a Self-Governance Modification, it is targeted for the November 2021 SEC Release.

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?

BEIS has previously implemented the required IRPs via BEIS-led designations. However, this process has now been handed over to the Smart Energy Code Administrator and Secretariat (SECAS) for changes to be implemented through the Modifications Process. To improve efficiency, it was agreed these changes should be progressed under a single proposal at regular intervals. This will be the second of these proposals, the first being SECMP0055 'Incorporation of multiple Issue Resolution Proposals into the SEC'.

SECMP0055 only progressed IRPs that did not impact the DCC Systems, as these have a shorter lead time than those that would require DCC System changes. This was planned with the intent that the IRPs with a short lead time would not be held up by IRPs with a longer lead time. This proposal will take all the outstanding DCC System impacting IRPs and collate them into one modification to be progressed.

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

What is the impact this is having?

These IRPs add clarity and corrections to the Technical Specifications documents. Device manufacturers are required to follow these Specifications when developing or maintaining their Devices. Therefore, any errors or miscommunication of these Specifications will mean the Device will not work as intended. TSIRS have agreed that these are issues and have agreed upon the solutions. Not implementing these solutions would mean that these problems would not be resolved.

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 er	• Gas Suppliers	• GSME	Low	Limited / no impact on GS.
IRP603	Security Log display over HAN	SMETS & CHTS	IRP603 Security Log display over HAN v0_	• Import Supplier • Gas Suppliers	• CHF • GPF • GSME • ESME	Low	Expected little impact on Users
IRP604	Query on IRP550 - Frame Control	GBCS	IRP604 Query on IRP550 - Frame Contr	• Gas Suppliers	• 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	• Import Supplier • Gas Suppliers • Electricity Distributors • Gas Transporter	• CHF • SPF • GSME • ESME • HCALCS	Low	Likely no impact on Users. Potential impact on Devices.
IRP582 (This has since been taken back to TSIRS for review)	Read ALCS Event Log values	GBCS	IRP582 Read ALCS Event Log values v0_1	• Import Supplier	• ESME	Low	Understood to align GBCS to current operation.

[1] IRP554 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

When discussing the issue identified in an IRP, the TSIRS identify the changes needed to the Technical Specifications documents required to resolve the issue. These changes can be found in the IRPs which are embedded in this Modification Report (see Section 2).

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

Although all SEC Parties will need to uplift to a new version of the Technical Specifications as directed by the Schedule 11 'Technical Specification Applicability Tables', there are only direct impacts identified to Supplier Parties and Device manufacturers. Suppliers may need to perform further testing as outlined in the Refinement Consultation responses.

DCC System

The implementation of these IRPs will impact both the Communication Service Providers (CSP) and the Data Service Providers (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.

We expect the SSI changes to be completed as part of the Modification implementation but this will be confirmed in the DCC Impact Assessment.

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.

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 on Greenhouse gas emissions have been identified.

5. Costs

DCC costs

The estimated DCC implementation costs to implement this modification is £680,000. The breakdown of these costs are as follows:

Breakdown of DCC implementation costs	
Activity	**Cost**
Design, Build and Pre-Integration Testing (PIT)	£680,000
Systems Integration Testing (SIT)	TBC
User Integration Testing (UIT)	TBC

Breakdown of DCC implementation costs	
Activity	**Cost**
Implement to Live	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.

SEC Party cost

It has been highlighted in the Refinement Consultation by a Large Supplier that additional testing may be required. There may be additional time and therein costs to carry out this further testing.

6. Implementation approach

Recommended implementation approach

SECAS is recommending an implementation date of:

- **4 November 2021** (November 2021 SEC Release) if a decision to approve is received on or before 4 March 2021; or
- **3 November 2022** (November 2022 SEC Release) if a decision to approve is received after 4 March 2021 but on or before 3 March 2022.

The lead-time provided to make the DCC System changes to implement these IRPs is three-to-six months for the DSP's changes and six-to-eight months for the CSPs' changes. These will be reviewed in the DCC Impact Assessment and a firm implementation approach produced.

As the changes impact a Technical Specification, they should be implemented in a SEC Release that includes an uplift to the Technical Specifications to prevent more than one change to the Technical Specifications in a calendar year. The November 2021 SEC Release is the next SEC Systems Release that this modification can be included in which is expected to include other Technical Specification changes. If, following a decision and allowing enough lead time, an earlier Release made updates to the Technical Specifications this modification may be included in that Release.

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 these three IRPs are the only DCC System impacting IRPs of those currently published and 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. TSIRS agreed the solutions and agreed they should be implemented into the SEC.

The views of Parties regarding implementation of these IRPs will be further gathered during the Refinement Process.

Views of Panel Sub-Committees

SECAS has been working closely with the Technical Architecture and Business Architecture Sub-Committee (TABASC) regarding the approach to implement these IRPs into the SEC. Upon raising this proposal, the TABASC was notified and queried 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 on 12 December 2019 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. On 2 January 2020 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 with BEIS, the DCC, and the TABASC to establish this and coordinate with any non-SEC modification changes to the Technical Specifications.

Support for Change

Working Group

The Working Group was made aware that IRP554 and IRP582 have 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.

Refinement Consultation

The Refinement Consultation returned two responses. A Network Party noted that it is not impacted by MP078, and a Large Supplier responded that it is generally in support of this Modification Proposal.

Planned BEIS designation of CRP612

The DCC has confirmed 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).

Views against the General SEC Objectives

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.

Appendix 1: Progression timetable

Following completion of the Refinement Consultation and clarification of the DCC's cost to complete an Impact Assessment, a request for approval of the DCC Impact Assessment will now be made to the Change Board. The Impact Assessment is the last step before the Modification Report can be presented to the Panel.

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

Timetable	
Action	**Date**
Draft Proposal raised	10 Jul 2019
Panel convert into a Modification Proposal	9 Aug 2019
First Preliminary Assessment	6 Sep 2019 – 31 Dec 2020
Second Preliminary Assessment	26 Mar – 3 Sep 2020
Request Impact Assessment costs from Change Board	23 Sep 2020
Request Impact Assessment	30 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

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MP078 'Incorporation of multiple Issue Resolution Proposals into the SEC - Part 2'

Annex A

Business requirements – version 0.4

About this document

This document contains the business requirements for this Modification Proposal. It provides detailed information on the business requirements for the Proposed Solution agreed by the Proposer, with input from the Data Communications Company (DCC) and Sub-Committees. It also provides the considerations and assumptions for each business requirement with respect to this Modification Proposal.

1. Business requirements

This section contains the functional business requirements needed for each Issue Resolution Proposal (IRP) contained within MP078 that the DCC have indicated could be DCC System impacting. Based on these requirements a full solution will be developed.

Business Requirements	
Ref.	**Requirement**
1	DCC System changes for IRP550 ‘GCS20r - Response when an error occurs’
2	DCC System changes for IRP603 ‘Security Log display over HAN’

2. Considerations and assumptions

2.1 General

This section contains the considerations and assumptions for each business requirement. These are excerpts from each of the IRPs and it is expected that the DCC will develop solution(s) to the consequential changes these IRPs will have on the DCC Systems. The document text changes are contained within each of the IRPs.

2.2 Requirement 1[1]: DCC System changes for IRP550 'GCS20r - Response when an error occurs'

Errors cannot be signalled via the ZSE Report Event Configuration command which is currently required as the only option in the GCS20r Response. However, errors could occur in Device processing and so the GCS20r Response needs to allow for such situations.

In common with other Use Cases where this situation applies, the proposed change is to allow the GCS20r Response to contain a ZigBee Default Response (as an Alternate Response) to signal any failures.

2.3 Requirement 2: DCC System changes for IRP603 'Security Log display over HAN'

SMETS / GBCS require that:

- the GPF, CHF, GSME and ESME Security Logs can be read by remote parties (and so with access controlled by the DCC);
- the GSME provides changes to its Security Log to the GPF, so that the GPF can maintain a copy of the GSME's Security Log. This copy can be read by remote parties; and
- both the GSME and ESME make their Security Logs available on the user interface (e.g. the meter display) 'following physical access through the Secure Perimeter'.

The design intention was that these would be the only ways to access Security Logs, so the Logs should not be made available to HAN devices (e.g. PPMIDs, IHDs or CADs), by either the CH or the ESME (GSME do not communicate with HAN Devices, except for the CH).

Further, GSME and ESME should not make Security Logs available on the User Interface, unless there has been 'physical access through the Secure Perimeter'.

However, there are no explicit prohibitions currently for:

- sharing Security Logs with HAN devices; or
- only displaying security logs without access through the Secure Perimeter. The proposed position is to amend SMETS (for ESME and GSME) and CHTS (for CH) to add explicit prohibitions.

[1] Please note, IRP604 can only be implemented at the same time, or following the implementation of IRP550. IRP604 has been identified as a GBCS text only change and will be implemented in MP078, applying text changes on top of those implemented by IRP550.

3. 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
CAD	Consumer Access Device
CH	Communications Hub
CHTS	CH Technical Specifications
DCC	Data Communications Company
ESME	Electronic Smart Metering Equipment
GBCS	Great Britain Companion Specifications
GPF	Gas Proxy Function
GSME	Gas Smart Metering Equipment
HAN	Home Area Network
HCALCS	Han Connected Auxiliary Load Control Switch
IHD	In-Home Display
IRP	Issue Resolution Proposal
PPMID	Pre-Payment Meter Interface Device
SECAS	Smart Energy Code Administrators and Secretariat
SMETS	Smart Metering Equipment Technical Specifications

Data Communications Company

SEC Modification Proposal, SECMP0078, DCC CR1233, CR1342

Incorporation of Multiple Issue Resolution Proposals into the SEC - Part 2

Preliminary Impact Assessment (PIA)

Version:	**0.5**
Date:	**1st September, 2020**
Author:	**DCC**
Classification:	**DCC PUBLIC**

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1 Document History

1.1 Revision History

Revision Date	Revision	Summary of Changes
27/12/2019	0.25	Initial version
02/01/2019	0.27	Updated Table 1 with CSP impacts
01/09/2020	0.5	Changed requirements, new PIA document

1.2 Associated Documents

This document is associated with the following documents:

Ref	Title and Originator's Reference	Source	Issue Date
1	MP078-Business-Requirements-v0.4-Updated-2IRPs	SECAS	17/04/2020

References are shown in this format, [1].

1.3 Document Information

The Proposer for this Modification is Simon Trivella of British Gas. The original proposal was submitted in July 2019.

The Preliminary Impact Assessment was requested of DCC on 30th September 2019. DCC submitted an initial PIA on 31st December, 2019. However the scope of the Modification was changed, and a further requested for a PIA was received on 17th April, 2020.

2 Context and Requirements

In this section, the context of the Modification, assumptions, and the requirements are stated.

The requirements have been provided by SECAS, the Proposer, and the Working Group.

2.1 Problem Statement

This SEC Modification handles incorporation of a set of IRPs into the SEC.

2.2 Business Requirements

This section contains the considerations and assumptions for each business requirement. These are excerpts from each of the IRPs and it is expected that the DCC will develop solution(s) to the consequential changes these IRPs will have on the DCC Systems. The document text changes are contained within each of the IRPs.

Req.	Requirement
1	IRP550, 'GCS20r - Response when an error occurs'
2	IRP603, 'Security Log display over HAN'
3	IRP 604, 'Query on IRP550 - Frame Control'

Table 1: Business Requirements for SECMP0078, CR1342

2.2.1 Requirement 1, IRP550 'GCS20r - Response when an error occurs'

Errors cannot be signalled via the ZSE Report Event Configuration command which is currently required as the only option in the GCS20r Response. However, errors could occur in Device processing and so the GCS20r Response needs to allow for such situations.

In common with other Use Cases where this situation applies, the proposed change is to allow the GCS20r Response to contain a ZigBee Default Response (as an Alternate Response) to signal any failures.

These points are fully explained in Annex A of IRP582.

2.2.2 Requirement 2, IRP603 'Security Log display over HAN'

The Smart Metering Equipment Technical Specification (SMETS) and Great Britain Companion Specification (GBCS) require that:

- the Gas Proxy Function (GPF), Communications Hub Function (CHF), Gas Smart Metering Equipment (GSME) and Electricity Smart Metering Equipment (ESME) Security Logs can be read by remote parties (with access controlled by the DCC).
- the GSME provides changes to its Security Log to the GPF, so that the GPF can maintain a copy of the GSME's Security Log. This copy can be read by remote parties.
- both the GSME and ESME make their Security Logs available on the user interface (e.g. the meter display) 'following physical access through the Secure Perimeter'.

The design intention was that these would be the only ways to access Security Logs, so the Logs should not be made available to Home Area Network (HAN) devices (e.g. PPMIDs, IHDs or CADs), by either the Communications Hub or the ESME. Note GSMEs do not communicate with HAN Devices, except for the Comms Hub.

Further, GSME and ESME should not make Security Logs available on the User Interface, unless there has been 'physical access through the Secure Perimeter'.

However, there are no explicit prohibitions currently for:

- sharing Security Logs with HAN devices
- only displaying security logs without access through the Secure Perimeter

The proposed position is to amend SMETS (for ESME and GSME) and CHTS (for Comms Hub) to add explicit prohibitions.

2.2.3 Requirement 3, IRP 604, Query on IRP550 - Frame Control

IRP604 has been identified as a GBCS text only change and will be implemented in SECMP0078, applying text changes on top of those implemented by IRP550. IRP604 can only be implemented at the same time, or following the implementation of IRP550.

3 Description of Solution

Elements of changes to the solution are identified in the following sections. The following table identifies impacts to each Service Provider.

Ref.	Requirement	DSP	Critical	CSP North	CSP South and Central
1	IRP550, 'GCS20r - Response when an error occurs'	✓	×	✓	✓
2	IRP603, 'Security Log display over HAN'	×	✓	✓	✓
3	IRP 604, Query on IRP550 - Frame Control	×	×	✓	✓

Table 2: IRP Impacts for Each Service Provider

It should be noted that this solution is only applicable to SMETS2 devices.

3.1 DSP Solution

3.1.1 IRP550

Currently, there is no way of signalling an error if a failure occurs while a Device executes GCS20r (Read non-critical event and alert behaviours - GSME-Supplier).

However, errors could occur in Device processing and so the GCS20r Response needs to allow for such situations. In common with other Use Cases where this situation applies, the GCS20r Response will be allowed to contain a ZigBee Default Response (as an Alternate Response) to signal any failures. This will be an additional element in the Response.

ZCL Payload of the Default Response will contain 0x05 as the value of the Command identifier if the GCS20r command does not succeed. DCC Data Systems will need to amend the corresponding Transform Library to support the new element in the GCS20r Response. In the absence of the Default Response, the processing shall be carried out as it is today.

Although a Default Response has been added to GCS20r, this does not change the existing functional behaviour of the Service Request Variant 6.2.10 (Read Device Configuration (Event And Alert Behaviours)) and as such, no changes are expected to DUIS.

3.1.2 IRP604

IRP604 is a correction to a sub-field that indicates the direction of message (client-server) of the Frame Control field within the new Default Response added to GCS20r. This has no impact on theDSP, as the correction will be done alongside IRP550.

3.2 Critical Software Solution

Changes to Critical Software applications will be required to implement this Modification.

3.2.1 GFI Core

To meet the requirements specified in **IRP550**, the GBCS Integration Testing For Industry (GFI) tool will need to implement full support of GCS20r as follows:

- Enhance the GFI Testing Tool to support GCS20r on GFI Testing Tool
- Implement support for GCS20r on the Reference Test Data Set (RTDS)
- Update GMST with GCS20r
- Enhance the Triage Tool to support GCS20r

To meet the requirements specified in **IRP603**, GFI will need to update the Comms Hub to restrict the access of Security Logs to HAN devices.

- Restrict access to CHF Security Log to Type1 and Type2 devices
- Restrict access to GPF Security Log to Type1 and Type2 devices

3.2.2 SMITEn Lite

The changes required to implement this Modification will affect the SMITEn parse service requiring an upgrade to a new version of the Parse and Correlate application.

For the IRPs, SMITEn Lite changes are:

IRP550	Add integration/system tests for use case GCS20r and review tests.
IRP603	No effort required – this only affects the availability of the Security Logs for HAN devices.

As a whole, these changes will require the release of a new version of SMITEn Lite.

3.3 Communication Service Provider (CSP) Changes

Design and build activities to support the following will be required for both CSPs:

- Comms Hub; Assessing the impact to the Communication Hub, update and up-issue any new versions of Technical Specifications including CHTS and CHDS
- CHM; Assessing the impact to CHM of changes to CHF Security Log

There will be a requirement for further Zigbee certifications and CPA Certification which is not included in the PIA estimates.

4 Impact on DCC Systems, Processes and People

This section describes the impact of SECMP0078 on DCC Services and Interfaces that impact Users and/or Parties.

4.1 Security Impact

The implementation will be security assured during the implementation phase. This includes reviewing designs, test artefacts and providing consultancy to the implementation and test teams.

There are no material changes to interfaces or the security solution as part of this Modification and therefore a penetration test is not required. There will not be any changes to the DSP protective monitoring solution as result of this Modification.

CSP Security impacts will require assessing the impact to the network and security vulnerabilities.

A more detailed Security impact will be carried out as part of the Full Impact Assessment.

4.2 Request Management

Request Management will need to add support for the revised Device Future Dated Command processing.

4.3 Data Management

Data Management will require updates to support the revised Device Future Dated Command processing.

4.4 Transform

Transform will be updated to parse the Default Response for the GBCS Use Case GCS20r.

4.5 Self Service Interface (SSI)

SSI will need to be updated such that it ignores the SAT Log entries related to the Response received after the final Execution Alert when determining the final status.

4.6 Integration Impact

The functionality will need to be validated in both the Systems Integration Testing (SIT) and User Integration Testing (UIT) environments and will require integration tests that involve both DSP and the CSPs as a minimum. It is assumed that it will be integrated as part of the November 2021 release. An initial estimate of the costs for integration (PIT) testing of the Modification are included in this PIA. The costs exclude release based regression testing in SIT and UIT.

4.7 Infrastructure Impact

There will be no change to the infrastructure design as a result of this change. Additional processing and storage will be required; however, they are not sufficiently large to warrant the procurement of additional compute power or storage as part of this Modification. Note that the aggregated impact of many such changes to the DSP solution will ultimately result in a reduction of the available processing headroom assumed as part of the original DSP agreement. As such, DSP may need to raise a Change Request (CR) for the provision of

additional infrastructure should the DCC Data System experience performance problems that are the direct result of such changes.

The change does not impact the DSP resilience or Disaster Recovery implementation.

4.8 Application Support

No changes to Application Support are expected.

4.9 Service Impact

This change updates behaviour of existing functionality. It is not expected that this will have a material impact on service desk activity, however, the change in behaviour will require updated service desk procedures to document expected new processing patterns. The change will also require knowledge transfer from the implementation team to the service desk team ahead of its release to supported environments. A more thorough assessment of the service impact will be carried out as part of the Full Impact Assessment.

4.10 Safety Impact

No impact is expected, but a full Safety Impact Assessment will be carried out as part of the production of the Full Impact Assessment (FIA).

4.11 Contract Schedules

Schedules will require modification to reflect the changes necessitated under this Modification. Contract schedules will be updated as part of a Contract Amendment Note (CAN) which combines schedule updates from other relevant Modifications.

No impact to any DSP contracts are expected.

The following contract Schedules may require amendment in terms of CSP-driven changes:

- Schedule 1 - Definitions
- Schedule 2.1 – DCC Requirements
- Schedule 4.1 - Contractor Solution
- Schedule 6.1 – Implementation Planning (to reflect any delivery milestones)
- Schedule 7.1 – Charges and Payment
- Schedule 11 – Communication Hub (to reflect an uplift to the CH specifications)

5 Implementation Timescales and Approach

Notwithstanding in which release this change is implemented, based on the currently stated requirements, the elapsed time for DSP implementation will be between 3 and 6 months following the provision of full commercial cover. Communication Service Provider (CSP) implementation will be between 6 – 8 months following the provision of full commercial cover.

The release lifecycle duration will be confirmed as part of the FIA. As currently planned, the standard ongoing major release model will provide drops to the production environment in November 2021.

5.1 Implementation Approach

Implementation of this change is assumed to follow a waterfall methodology. The release lifecycle duration will be confirmed as part of the full impact assessment. The standard ongoing major release model will provide drops to the production environment in June and November each year.

5.2 Testing and Acceptance

It is assumed that the change will be implemented and tested as part of a major release, and will include release based regression testing in SIT and UIT.

CSP North platform test and build changes will be as follows:

- Platform Test; Assessing the testing of CH for the implementation of IRPs
- Platform Build; Assessing impact on Platform Build requirements
- Retest against IRP550

CSP South and Central have identified the following testing tasks:

- Creation of additional PIT test scenarios to cover IRP550 and IRP603
- Regression testing on firmware for all 16 Communication Hub (CH) variants. DCC recommends a review on the number of test variants required for the FIA.
- Deployment and testing of the changes within this CR within Telefónica's PIT environment in accordance with the existing PIT Approach document.
- Deployment of this firmware to the PIT environment.

6 Costs and Charges

The table below details the cost of delivering the changes and Services required to implement this Modification Proposal.

The scope of supply under this PIA includes design, development (build), system testing, and performance testing within the PIT environments.

The Rough Order of Magnitude cost (ROM) shown below describes indicative costs to implement the functional requirements as assumed now. The price is not an offer open to acceptance. It should be noted that the change has not been subject to the same level of analysis that would be performed as part of a Full Impact Assessment and as such there may be elements missing from the solution or the solution may be subject to a material change during discussions with the DCC. As a result the final offer price may result in a variation.

6.1 Design, Build, and Testing Cost Impact

The table below details the cost of delivering the changes and Services required to implement this Modification. For a PIA, only the Design, Build and PIT indicative costs are supplied.

£	Design, Build and PIT	SP Total
Phase ROM	680,000	680,000

Note a substantial part of both the above cost and the FIA development cost given below are associated with one Service Provider. DCC believe that the quoted cost is not appropriate and will be reviewing the provided figures.

Design	The production of detailed System and Service designs to deliver all new requirements.
Build	The development of the designed Systems and Services to create a solution (e.g. code, systems, or products) that can be tested and implemented. It includes Unit Testing (also referred to as System Testing), Performance Testing and Factory Acceptance Testing by the Service Provider or supplier.
Pre-Integration Testing (PIT)	Each Service Provider tests its own solution to agreed standards in isolation of other Service Providers. This is assured by DCC. This phase also includes regression testing across all Comms Hub products

Based on the existing requirements, the fixed price cost for a Full Impact Assessment is **£118,487** and would be expected to be completed by most of the Service Providers in 30 days. CSP North have requested a period of 50 days.

Appendix A: Glossary

The table below provides definitions of the terms used in this document.

.Acronym	Definition
CAD	Consumer Access Device
CAN	Contract Amendment Note
CHF	Communications Hub Function
CHM	Communications Hub Management
CHTS	Communications Hub Technical Specification
CPA	Commercial Product Assurance
CR	DCC Change Request
CSP	Communication Service Provider
DCC	Data Communications Company
DSP	Data Service Provider
DUIS	DCC User Interface Specification
ESME	Electricity Smart Metering Equipment
FIA	Full Impact Assessment
GBCS	Great Britain Companion Specification
GFI	GBCS Integration Testing For Industry
GSME	Gas Smart Metering Equipment
HAN	Home Area Network
IRP	Issue Resolution Proposal
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
ROM	Rough Order of Magnitude (cost)
RTDS	Reference Test Data Set
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SMETS	Smart Metering Equipment Technical Specification
SMITEn Lite	Smart Metering Integrated Test Environment Lite
SP	Service Provider
SSI	Self Service Interface
TTO	Transition to Operations
UIT	User Integration Testing

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MP078 'Incorporation of multiple Issue Resolution Proposals into the SEC - Part 2'

Annex D

Refinement Consultation responses

About this document

This document contains the full collated responses received to the MP078 Refinement Consultation.

Question 1: Do you agree with the solution put forward?

Question 1			
Respondent	**Category**	**Response**	**Rationale**
Western Power Distribution	Network Party	N/A	We have not reviewed IRP 550, IRP 306 or IRP 604 as they have no impact on us so are neutral to this.
OVO	Large Supplier	Yes, in principle.	These gaps need to be corrected to ensure robustness of the specification.

Question 2: Will there be any impact on your organisation to implement MP078?

Question 2			
Respondent	**Category**	**Response**	**Rationale**
Western Power Distribution	Network Party	No	IRP 550, IRP 306 or IRP 604 have no impact on Electricity Distributors.
OVO	Large Supplier	Yes	Potentially- IRP603 and IRP604/550 may require additional firmware for Devices where they are not compliant to these current gaps. This could necessitate further testing from a User perspective. Impact is most concerning with IRP603, as if CHs are not currently compliant to this then our testing volume rises exponentially. Changes to SMETS and GBCS would have to be understood and further work with our meter providers would be required to produce firmware that adheres to the new specifications.

Question 3: Will your organisation incur any costs in implementing MP078?

Question 3			
Respondent	**Category**	**Response**	**Rationale**
Western Power Distribution	Network Party	No	
OVO	Large Supplier	Yes	Yes we will incur cots as a result of the testing mentioned in Q2. Furthermore, we note that new firmware will incur costs around testing, piloting and deployment.

Question 4: Do you believe that MP078 would better facilitate the General SEC Objectives?

Question 4			
Respondent	**Category**	**Response**	**Rationale**
Western Power Distribution	Network Party	N/A	See response to Question 1.
OVO	Large Supplier	Yes	Facilitates objectives and effectively.

Question 5: Noting the costs and benefits of this modification, do you believe MP078 should be approved?

Question 5			
Respondent	**Category**	**Response**	**Rationale**
Western Power Distribution	Network Party	N/A	See response to Question 1.
OVO	Large Supplier	Costs require further review	The costs quoted are not clear as to whether these include IRPs 554 and 582, which this consultation has sought to move into MP098. The DCC document states IRPs 550, 554, 582 and 603 as being included in the costing, and the consultation still quotes this figure despite seeking to remove 554 and 582- which we note have the largest impact for DCC. As noted by Telefonica in Section 7.3 of Annex B to this SECMP, the quoted costs would be significantly lowered if implemented with a major release incorporating these IRPs. Since MP078 would now only include IRP550 and IRP603- both which we are currently living with and neither of which have significantly detrimental impacts- we may make more efficient use of resources if the DCC-requirements of these IRPs are also rolled into MP098

Question 6: How long from the point of approval would your organisation need to implement MP078?

Question 6			
Respondent	**Category**	**Response**	**Rationale**
Western Power Distribution	Network Party	N/A	See response to Question 1.
OVO	Large Supplier	No comment	This is dependent on firmware changes required, which would then require testing from our perspective. It would also depend on how long our manufacturers will take to develop compliant firmware.

Question 7: Do you agree with the proposed implementation approach?

Question 7			
Respondent	**Category**	**Response**	**Rationale**
Western Power Distribution	Network Party	N/A	See response to Question 1.
OVO	Large Supplier	Yes but timing needs to be addressed.	The implementation is sound, however the timing of when this is implemented could be better improved to minimise on cost.

Question 8: Do you agree that the legal text will deliver MP078?

Question 8			
Respondent	**Category**	**Response**	**Rationale**
Western Power Distribution	Network Party	N/A	See response to Question 1.
OVO	Large Supplier	No comment	This will only deliver MP078 provided all manufacturers are currently adhering to the behaviour described in MP078, which we cannot fully comment on.

Question 9: Do you agree with removing IRP554 and IRP582 from MP078 and incorporating them into MP098?

Question 9			
Respondent	**Category**	**Response**	**Rationale**
Western Power Distribution	Network Party	Yes	Whilst we agree with the proposal to remove IRP554 and IRP582, we cannot see them detailed anywhere in MP098. We are concerned that because they are not detailed within MP098 that they might get omitted, either in their entirety or parts of the solution. Please can MP098 be updated and republished to include these IRPs, or if they are now referred to as something else can this be clarified?
OVO	Large Supplier	Yes	No comment.

Question 10: Do you agree with implementing the legal text drafting from MP078 to the current Principal Versions of the Technical Specifications as a Sub-Version, and as a Sub-Version to the next Principal Version?

Question 10			
Respondent	**Category**	**Response**	**Rationale**
Western Power Distribution	Network Party	N/A	See response to Question 1.
OVO	Large Supplier	Yes	No comment.

Question 11: Do you agree with including IRP604 in MP078?

Question 11		
Respondent	**Category**	**Rationale**
Western Power Distribution	Network Party	See response to Question 1.
OVO	Large Supplier	Yes- IRP604 should be implemented in conjunction with IRP550.

Question 12: Please provide any further comments you may have

Question 12		
Respondent	**Category**	**Comments**
Western Power Distribution	Network Party	
OVO	Large Supplier	We would encourage caution in the implementation of IRP582 to ensure it does not conflict or become nullified by changes brought in by the introduction of Proportional Load Control devices, and the proposed changes to existing ALCS/HCALCS devices as part of this.