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<b>Action:</b>	<b>For Decision</b>

## November 2020 SEC Release scope on the DCC Systems

### 1. Purpose

This paper provides an update on the proposed scope for the November 2020 SEC System Release. The Panel is requested to baseline the Release Implementation Document (RID) for this SEC Release.

### 2. November 2020 SEC Release – scope on the DCC Systems

The November 2020 SEC Release is due to go live on 5 November 2020. We currently believe the following DCC System impacting Modification Proposals could be included in this SEC Release:

- [SECMP0007 'Firmware updates to IHDs and PPMIDs'](#)
- [SECMP0015 'GPF timestamp for reading instantaneous Gas values'](#)
- [SECMP0024 'Enduring Approach to Communication Hub Firmware Management'](#)
- [SECMP0046 'Allow DNOs to control Electric Vehicle chargers connected to Smart Meter infrastructure'](#)
- [SECMP0056 'IHD / PPMID Zigbee Attributes Available on the HAN'](#)
- [SECMP0062 'Northbound Application Traffic Management - Alert Storm Protection'](#) part 2
- [SECMP0063 'Ensuring correct Network Operator Certificates are placed on Electricity Smart Meters'](#)
- [SECMP0067 'Service Request Traffic Management'](#)
- [MP078 'Incorporation of multiple Issue Resolution Proposals into the SEC - Part 2'](#)

SECMP0062 part 1 is currently targeted for the June 2020 SEC Release. If it becomes apparent this part cannot be delivered, then we propose it is included in this release, meaning the whole solution would be implemented in one package.

The DCC highlights that the DCC Impact Assessments for the firmware changes required for SECMP0007, SECMP0015, SECMP0024 and SECMP0056 are due to be completed between now and January. A series of prioritisation workshops will need to be held with Parties and SEC Panel representatives during this time to identify which of these changes can be delivered as part of the November 2020 SEC Release, depending on the size and complexity of the solutions; the DCC notes it can provide input to these decisions but it is for the industry to determine the priority of these

changes. The DCC intends to update the Panel on which of these modifications can be included in this SEC Release at the February 2020 Panel meeting.

We do not believe any other modifications that impact on DCC Systems can be approved in time for inclusion. Other modifications that do not impact the DCC Systems can still be added to the scope later on, and the Panel will be asked to re-baseline the scope to include these in May 2020.

The DCC is committed to delivering SEC Releases on the stated go-live dates. However, it highlights a risk that other programmes, such as the SMETS1 Enrolment and Adoption programme or the Faster Switching programme, could need to be prioritised. The DCC will inform SECAS and the Panel as soon as it becomes aware of any possible impacts with delivering these SEC Releases, as a result of other programmes.

### 3. Recommendations

The Panel is requested to:

- **AGREE** the targeted scope for the November 2020 SEC Release on the DCC Systems; and
- **BASELINE** the November 2020 SEC Release Implementation Document.

David Kemp

SECAS Team

8 November 2019

#### Attachments:

- **Appendix A:** November 2020 SEC Release Implementation Document v0.2

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# November 2020 SEC Release (5 November 2020)

## SEC Release Implementation Document Version 0.2

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## About this document

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This document is the Smart Energy Code (SEC) Release Implementation Document (RID) for the November 2020 SEC Release, due to be implemented on 5 November 2020. It summarises the scope of the release, the impacts it will have, the timeline and testing strategy, the central costs that will be incurred, and the acceptance criteria for this release.

This document will be updated periodically as the release develops.

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This document also has one annex:

- **Annex A** will contain the Data Communication Company's (DCC's) SEC Release Testing Approach Document (TAD) for this release – this document will be produced by the DCC at a later date.

## 1. Scope

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### Approved Modification Proposals

No Modification Proposals have been approved for inclusion in this release.

### Targeted Modification Proposals

The following Modification Proposals will be included in this release if a decision to approve is received by the respective cut-off dates:

- [SECMP0007 'Firmware updates to IHDs and PPMIDs'](#) proposes to allow over-the-air (OTA) firmware updates to be delivered to In-Home Displays (IHDs), Prepayment Interface Devices (PPMIDs) and Home Area Network (HAN) Connected Auxiliary Load Control Switches (HCALCSs).
- [SECMP0015 'GPF timestamp for reading instantaneous Gas values'](#) proposes to add a timestamp to the instantaneous value reading that Gas Smart Metering Equipment (GSME) provide to the Gas Proxy Function (GPF).
- [SECMP0024 'Enduring Approach to Communication Hub Firmware Management'](#) proposes to implement an enduring process for the deployment and activation of Communications Hub firmware updates.
- [SECMP0046 'Allow DNOs to control Electric Vehicle chargers connected to Smart Meter infrastructure'](#) proposes to allow Electricity Network Parties to be able to use Smart Meter infrastructure to modify Electric Vehicle charging load within a household.
- [SECMP0056 'IHD / PPMID Zigbee Attributes Available on the HAN'](#) proposes to make the appropriate Zigbee attributes for devices on the HAN available to Smart Metering Equipment Technical Specifications (SMETS)2 devices as is currently the case for SMETS1 devices.
- [SECMP0062 'Northbound Application Traffic Management – Alert Storm Protection'](#) proposes to put in place a traffic management system for Alerts issued by Devices to protect the DCC System and Service Users against alert storms originating from a single Device. SECMP0062 is being implemented in two parts, with the first part of the solution, the mechanism for throttling Alerts, being implemented in an earlier release. The second stage of the solution will be implemented in this release and will cover the changes to allow Users to be notified of throttled Alerts via the metadata in the Alerts that are allowed through.
- [SECMP0063 'Ensuring correct Network Operator Certificates are placed on Electricity Smart Meters'](#) proposes that the DCC will validate the Network Certificate placed on Electricity Smart Metering Equipment (ESME) and the GPF by a Supplier is for the correct Network Operator.
- [SECMP0067 'Service Request Traffic Management'](#) proposes to define a maximum system capacity, operating threshold and appropriate Service User allocations. When the DCC System reaches this operating threshold, traffic management of the Service Requests will become active. Service Users who are exceeding their allocation will then have their requests throttled down to either their stated allocation or the operating threshold (whichever is greater).

- [MP078 'Incorporation of multiple Issue Resolution Proposals into the SEC - Part 2'](#) proposes to implement a set of approved Issue Resolution Proposals (IRPs) that will introduce clarifications or make corrections to the Technical Specifications that require changes to the DCC Systems.

No further modifications that impact on DCC Systems are expected to be added. Further modifications that do not impact on DCC Systems may be added to the scope of this release at a later date.

### **Assessment of impact on firmware**

The DCC Impact Assessments for the firmware changes required for SECMP0007, SECMP0015, SECMP0024 and SECMP0056 are due to be completed between November and January. The DCC will be holding a series of prioritisation workshops with Parties to identify which of these changes can be delivered as part of this SEC Release, depending on the size and complexity of the solutions. These prioritisation workshops will be scheduled over the same period. The DCC intends to update the Panel on which of these modifications can be included in this SEC Release at the February 2020 Panel meeting.

### **DCC Change Requests**

A list of any DCC Change Requests being implemented alongside this SEC Release will be provided here.

## 2. Impacts

This section lists the impacts that the changes included in this release will have on participants and their systems, SEC documents and other industry codes. This section assumes all targeted modifications will be approved for inclusion in this release.

### SEC Party and DCC impacts

Participant impact matrix					
Modification	Suppliers	Electricity Networks	Gas Networks	Other SEC Parties	DCC
SECMP0007	✓			✓	✓
SECMP0015	✓		✓	✓	✓
SECMP0024	✓			✓	✓
SECMP0046	✓	✓		✓	✓
SECMP0056	✓			✓	✓
SECMP0062	✓	✓	✓	✓	✓
SECMP0063	✓	✓	✓		✓
SECMP0067	✓	✓	✓	✓	✓
MP078				✓	✓

The impacts on the different participants are summarised below. The business requirements for each Modification Proposal are annexed to the Modification Reports for each modification, which are available on the corresponding modifications' webpages.

SEC Party impacts	
Participant	Summary of impacts
Supplier Parties	<ul style="list-style-type: none"> <li>Suppliers will be able to update Devices on the HAN via an OTA method.</li> <li>Suppliers will be able to see the time at which the instantaneous value reading on the GPF was taken from the GSME.</li> <li>Suppliers' customers will no longer be able to access data from devices for time periods before their tenancy began.</li> <li>Suppliers will be able to manage the time Communications Hub updates are deployed and activated by the DCC.</li> <li>Suppliers will have the Network Certificates they attempt to place on ESME/GPFs validated by the DCC.</li> <li>Suppliers will be notified of when Alerts have been throttled via the metadata in Alerts that have been allowed through.</li> <li>Suppliers may find their Service Requests subject to throttling if their usage exceeds their allocated capacity during times of high traffic.</li> </ul>
Electricity Network Parties	<ul style="list-style-type: none"> <li>Electricity Network Parties will have their Certificates validated by the DCC post-commissioning of ESME.</li> </ul>

SEC Party impacts	
Participant	Summary of impacts
	<ul style="list-style-type: none"> <li>Electricity Network Parties will be notified of when Alerts have been throttled via the metadata in Alerts that have been allowed through.</li> <li>Electricity Network Parties may find their Service Requests subject to throttling if their usage exceeds their allocated capacity during times of high traffic.</li> </ul>
Gas Network Parties	<ul style="list-style-type: none"> <li>Gas Network Parties will be able to see the time at which the instantaneous value reading on the GPF was taken from the GSME.</li> <li>Gas Network Parties will have their Certificates validated by the DCC post-commissioning of a GPF.</li> <li>Gas Network Parties will be notified of when Alerts have been throttled via the metadata in Alerts that have been allowed through.</li> <li>Gas Network Parties may find their Service Requests subject to throttling if their usage exceeds their allocated capacity during times of high traffic.</li> </ul>
Other SEC Parties	<ul style="list-style-type: none"> <li>Device manufacturers will need to ensure that devices are built to the revised specifications resulting from these modifications.</li> <li>Other SEC Parties will be notified of when Alerts have been throttled via the metadata in Alerts that have been allowed through.</li> <li>Other SEC Parties may find their Service Requests subject to throttling if their usage exceeds their allocated capacity during times of high traffic.</li> </ul>

DCC impacts	
Area impacted	Summary of impacts
Communication Hub software	<ul style="list-style-type: none"> <li>Communications Hubs will need be updated to populate Responses to Use Cases GCS13a, GCS13b, GCS13c, GCS14 or GCS60 with a date-time stamp received from the GSME or generated by the GPF. They will also construct message headers such that Users can determine the source of the date-time stamp (as either the GSME or GPF) and whether the date-time stamp is reliable, unreliable or invalid.</li> <li>Communications Hubs will need to handle new Service Requests to populate the Change of Tenancy details across the HAN.</li> </ul>
Parse and Correlate	<ul style="list-style-type: none"> <li>Parse and Correlate will be updated to decode the date-time stamp to identify the source (GSME or GPF) and whether it is reliable, unreliable or invalid, and present this information to the User. Message Mapping Catalogue (MMC) schema will need to be updated to allow Parse and Correlate to implement this change.</li> </ul>
DCC User Interface Specification	<ul style="list-style-type: none"> <li>A new DCC User Interface Specification (DUIS) version will be released to implement the changes to the metadata for Alerts when throttling is taking place.</li> </ul>



DCC impacts	
Area impacted	Summary of impacts
Data Service Provider	<ul style="list-style-type: none"> <li>The following Data Service Provider (DSP) components will be affected: <ul style="list-style-type: none"> <li>Communications Service Provider (CSP) Smart Meter Wide Area Network (SM WAN) Gateway and CSP Interfaces</li> <li>Changes to the Self-Service Interface (SSI) to enable the read inventory to include firmware versions Anomaly detection volume thresholds</li> <li>Energy Service Interface Inventory Extract</li> <li>DCC User Gateway Interface Design Specification (DUGIDS) updates, DUIS Service Requests, and MMC, Alerts and Messages</li> <li>Updates to Service Request processing</li> <li>Support for 'Read Firmware' and 'Activate Firmware' on HCALCSs</li> <li>Updates to the Central Products List (CPL)</li> <li>Transform – New GBCS Use Cases</li> <li>Changes to existing Use Cases</li> <li>New validation check for Service Request Variants (SRVs) 6.15.1 and 6.21</li> <li>DUGIDS definitions for the SRVs 6.15.1 and 6.21 will be updated to include the newly introduced error code</li> </ul> </li> </ul>
Communications Service Providers	<ul style="list-style-type: none"> <li>The following CSP components will be affected: <ul style="list-style-type: none"> <li>CSP North SM WAN</li> <li>CSP/DSP Interfaces</li> <li>Communications Hub</li> <li>CSP solution</li> <li>Queuing priorities</li> </ul> </li> <li>Requires Design, Build, and Test changes to the CSP solutions to support the delivery of firmware Images to PPMIDs, IHDs and HCALCS Devices.</li> <li>Support the delivery of firmware for HAN Devices from the Communication Hub to the connected Device over the HAN.</li> <li>Changes to Use Cases CS05b and CS06 to support HCALCS.</li> <li>New GBCS use cases are expected: <ul style="list-style-type: none"> <li>Use Case CS05c 'Distribute Firmware to PPMID or IHD'</li> </ul> </li> </ul>

## SEC document impacts

The following documents will be updated in this release:

- Schedule 8 'GB Companion Specification'
- Schedule 9 'SME Technical Specifications'
- Schedule 10 'CH Technical Specifications'
- Schedule 11 'TS Applicability Tables'
- Appendix R 'Common Testing Scenarios Document'

- Appendix AD 'DCC User Interface Specification'
- Appendix AF 'Message Mapping Catalogue'

Each of these documents is impacted by the following modification(s):

SEC document impact matrix									
Document	SECMP 0007	SECMP 0015	SECMP 0024	SECMP 0046	SECMP 0056	SECMP 0062	SECMP 0063	SECMP 0067	MP078
Schedule 8	✓	✓	✓	✓	✓				✓
Schedule 9	✓	✓			✓				✓
Schedule 10	✓	✓	✓		✓				✓
Schedule 11	✓	✓	✓	✓	✓				✓
Appendix R				✓					
Appendix AD	✓			✓		✓	✓		
Appendix AF	✓	✓	✓	✓					

The document impacts are provisional based on the current understanding of the solutions. Some solutions are still at early stages of assessment, and the impacts will be updated as each modification evolves.

The approved changes to each document will annexed to the Modification Reports for each modification, which are available on the corresponding modifications' webpages.

### Technical documentation validity

The versions of the technical documentation being introduced or updated by this release will be documented here once confirmed. This will include any applicable Validity Period start and end dates.

### Other Code impacts

SECMP0046 is expected to require corresponding changes to the Distribution Connection and Use of System Agreement (DCUSA). These changes are still being developed.

No other Codes are impacted as a result of this release.

### 3. Implementation timeline

This section lists the planned timeline for the implementation of this release.

This timeline includes the dates on which decisions on modifications are anticipated, dates for when the System Integration Testing (SIT) and User Integration Testing (UIT) test phases are planned to commence and complete, and key governance steps for the Panel and the Testing Advisory Group (TAG) to complete.

Please note that dates for the submission and approval of the SIT and UIT Completion Reports and the commencement and closure of the UIT window are provisional and may change nearer the time. These dates are based on the anticipated schedule for TAG and Panel meetings, but ad-hoc meetings may be required in order to sign these documents off. These dates and approaches will be confirmed as the DCC prepares the TAD.

Release implementation timetable		
Date	Event	Notes
15 Nov 19	Panel baselines RID for system-impacting modifications	The Panel will review the RID for DCC System-impacting modifications (including modifications targeted but not approved) and baseline the document.
08 Jan 20	DCC submits draft SEC Release TAD	
15 Jan 20	TAG reviews draft SEC Release TAD	
Feb 20	DCC consults on draft SEC Release TAD	The DCC will consult the industry on the draft TAD.
11 Mar 20	DCC submits updated SEC Release TAD	The TAD will be updated to account for comments provided by the TAG and from the consultation.
18 Mar 20	TAG reviews updated SEC Release TAD	The TAG will provide a view to the Panel on whether this document is suitable for use.
10 Apr 20	Panel reviews SEC Release TAD	The Panel will review the TAD and incorporate it into the RID.
13 Apr 20	SIT commences	
15 May 20	Panel baselines RID for non-system-impacting modifications	The Panel will review the RID for non-DCC System-impacting modifications (including modifications targeted but not approved) and re-baseline the document to include these.
08 Jul 20	DCC submits SIT Completion Report	
15 Jul 20	TAG reviews SIT Completion Report	The TAG will provide a recommendation to the Panel on whether SIT has been completed successfully.
22 Jul 20	Test Participants inform DCC of their regression testing plans	By 10 Working Days before UIT begins
05 Aug 20	UIT commences	
14 Aug 20	Panel approves SIT Completion Report	An ad-hoc meeting may be needed to obtain this approval earlier.

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Release implementation timetable		
Date	Event	Notes
09 Sep 20	Test Participants provide regression testing results to DCC	By five Working Days before UIT completion  Once the scope of the release has been baselined, the DCC will propose a plan to support a six-week UIT window, whilst considering the constraints around the SEC governance timetable. Further updates will be supplied in Jan 20.
09 Sep 20	DCC submits UIT Completion Report	
16 Sep 20	UIT window closes	
16 Sep 20	TAG reviews UIT Completion Report	The TAG will provide a recommendation to the Panel on whether UIT has been completed successfully.
06 Oct 20	Operations Group reviews status against acceptance criteria	The Operations Group will review the status of the release and provide a recommendation on whether it should be implemented as planned.
16 Oct 20	Panel approves UIT Completion Report	
16 Oct 20	Panel go/no-go decision	The Panel will review the status of the release against the acceptance criteria and will determine if the release should be implemented as planned.
05 Nov 20	Release go-live	The changes are implemented.

## 4. Test strategy

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This section covers the testing approach that will be taken by the DCC as part of the implementation of this release.

### DCC's testing approach

The DCC's SEC Release Testing Approach Document will be provided as Annex A to this document in due course. This will cover the DCC's approach to SIT.

### User testing approach

The DCC's SEC Release Testing Approach Document will be provided as Annex A to this document in due course. This will cover the DCC's approach to UIT.

## 5. Costs

This section summarises the costs that will be incurred by the DCC and the Smart Energy Code Administrator and Secretariat (SECAS) in implementing this release.

### DCC costs

The total DCC implementation costs of this release have not yet been determined.

The DCC has provided the following cost breakdown for each DCC System impacting modification in this release:

Breakdown of DCC implementation costs				
Modification	Design, Build & PIT	SIT	UIT	Implement to live
SECMP0007	<i>£20,000,000</i>	TBC	TBC	TBC
SECMP0015	<i>£570,000</i>	TBC	TBC	TBC
SECMP0024	TBC	TBC	TBC	TBC
SECMP0046	<i>£560,000</i>	TBC	TBC	TBC
SECMP0056	<i>£1,300,000</i>	TBC	TBC	TBC
SECMP0062	N/A	N/A	N/A	N/A
SECMP0063	<i>£550,000</i>	TBC	TBC	TBC
SECMP0067	<i>£1,646,355</i>	TBC	TBC	TBC
MP078	TBC	TBC	TBC	TBC

No impact on operational costs have been identified.

Costs in italics are estimated costs provided in the Preliminary Assessments. Firm costs will be provided in the Impact Assessments.

The full set of changes for SECMP0062 will be developed as part of the development of part 1. The DUIS changes will then be left dormant until this release goes live. As such, the full costs for this modification have been allocated to the release which includes part 1.

The DCC will provide standalone costs for SIT, UIT and Implement to Live for each modification for inclusion in their Modification Reports as part of the Impact Assessment. Once the scope of the release is confirmed and the Preliminary Assessments for all candidate modifications are complete, the DCC will produce a combined Preliminary Assessment. This will provide a combined estimated cost for each of these stages when the modifications are delivered as a single package. Where possible, these combined costs will also be provided in the respective Modification Reports.

### SECAS costs

SECAS will incur two days effort, equating to around £1,200, to update and implement the changes to the SEC. SECAS estimates a maximum of 20 days of effort, equating to around £12,000, will be needed for project management of the release. This cost has already been accounted for in the SECAS budget, and so Parties will not incur any additional costs.

## 6. Acceptance criteria

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The following criteria will need to be met before the release can go live.

- The DCC has developed the coding for each approved change and confirmed it will be able to deploy this to the live environment on the agreed implementation date.
- The DCC has completed and closed each Test Phase against the agreed exit criteria.
- The DCC has confirmed that there are no Severity 1 or 2 defects outstanding that would be deployed to the live environment.
- The DCC has produced a clear resolution plan for any outstanding Severity 3, 4 or 5 defects and that the number of remaining Testing Issues is within the agreed threshold figures.
- The DCC has demonstrated that the SIT and UIT test environments were aligned to the solution being deployed to production; if there were any differences, these were identified and the risks these posed demonstrably managed.
- The DCC has demonstrated that it is ready to operate the new or updated capabilities.
- SECAS will be ready to implement the approved changes to the SEC on the agreed implementation date.

Prior to go-live, the TAG and the Operations Group will review the status of the release against these criteria. They will provide a recommendation to the Panel on whether to implement the release as planned. The Panel will review these recommendations and will determine then if the release should or shouldn't be implemented as planned.

## Appendix 1: Version control

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Document history		
Version	Date	Changes
0.1	12 Sep 19	First draft issued to the Technical Architecture and Business Architecture Sub-Committee (TABASC), the Operations Group and SEC Parties for comment.
0.2	08 Nov 19	Updated draft following comments from the TABASC and the Operations Group presented to Panel to be baselined.



## 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
CPL	Central Products List
CSP	Communications Service Provider
DCC	Data Communication Company
DSP	Data Service Provider
DUGIDS	DCC User Gateway Interface Design Specification
DUIS	DCC User Interface Specification
ESME	Electricity Smart Metering Equipment
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
MMC	Message Mapping Catalogue
OTA	over-the-air
PIT	Pre-Integration Testing
PPMID	Prepayment Interface Device
RID	Release Implementation Document
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	System Integration Testing
SM WAN	Smart Meter Wide Area Network
SMETS	Smart Metering Equipment Technical Specifications
SRV	Service Request Variant
SSI	Self-Service Interface
TABASC	Technical Architecture and Business Architecture Sub-Committee
TAD	Testing Approach Document
TAG	Testing Advisory Group
UIT	User Integration Testing



**Smart Energy Code Administrator and Secretariat (SECAS)**

8 Fenchurch Place, London, EC3M 4AJ

020 7090 7755

[sec.change@gemserv.com](mailto:sec.change@gemserv.com)

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