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November 2021 SEC Release (4 November 2021)

SEC Release Implementation Document

Version 12.0

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Managed by



About this document

This document is a Smart Energy Code (SEC) Release Implementation Document (RID). It summarises the scope of the SEC 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** contains the Data Communication Company's (DCC's) SEC Release Testing Approach Document (TAD) for this release. This document is provided separately to this RID.

1. Scope

Approved Modification Proposals

The following Modification Proposals have been approved for inclusion in this release:

- [SECMP0007 'Firmware updates to IHDs and PPMIDs'](#)¹ will allow over-the-air (OTA) firmware updates to be delivered to Prepayment Interface Devices (PPMIDs) and Home Area Network (HAN) Connected Auxiliary Load Control Switches (HCALCSs).
- [MP077 'DCC Service Flagging'](#) will replace the 'W' and 'S' DCC Service Flags with an 'N' and an 'I' Flag allowing Users to tell the difference between Devices on a Smart Metering System (SMS) that are Active, installed but not commissioned or decommissioned.
- [MP090 'Incorporation of Non GBCS Non-Mandated Alerts into the SEC'](#) will change the GB Companion Specification (GBCS) to include Non GBCS Non-Mandated (NGNM) Alerts.
- [MP105 'Sending SR11.2 to Devices in Suspended State'](#) will add Service Request (SR) 11.2 'Distribute Firmware' to the exception list for the E5² authorisation check and use the firmware version in the response to SR11.3 'Activate Firmware' to update the Device status in the Smart Metering Inventory (SMI).
- [MP138 'DCC Service Testing in ETAD'](#) will add the Testing Services to SEC Appendix J 'Enduring Testing Approach Document' (ETAD) with charging arrangements added to the SEC to ensure the DCC can offer these services.
- [MP150 'Removing Table 28c from the GBCS'](#) will remove Table 28c from the GBCS and replace all instances of "NA" in Table 28a in place of blank cells to align it with the other GBCS Tables.
- [MP157 'Removal of DUIS v1.0 and v2.0'](#) will remove DCC User Interface Specifications (DUIS) versions 1.0 and 2.0 from the SEC.
- [MP158 'Incorporation of multiple Issue Resolution Proposals into the SEC – Batch 5'](#) will incorporate 17 non-DCC System impacting Issue Resolution Proposals (IRPs) into the SEC.
- [MP164 'November 2021 SEC Release supporting changes'](#) will make consequential changes to the SECMP0007 legal text for the GBCS, the Smart Metering Equipment Technical Specifications (SMETS), the DUIS and the Message Mapping Catalogue (MMC).

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:

- [MP149 'Effecting Changes to the Smart Energy Code efficiently'](#) proposes to extend the provisions to modify the SEC by enabling additional organisations to raise Draft Proposals to the SEC.

¹ SECMP0007 will be implemented in a phased approach across the November 2021 and June 2022 SEC Releases and latter part of 2022. For more information on the implementation please visit our news page [here](#).

² Failed Authorisation – Invalid Device Status

- [MP180 'Market-wide Half-Hourly Settlement Implementation'](#) proposes to formalise the Smart Energy Code Company's (SECCo's), and by extension the Smart Energy Code Administrator and Secretariat's (SECAS's), cooperation with the agreed method of Market-wide Half-Hourly Settlement (MHHS) implementation to be set out in the Balancing and Settlement Code (BSC).

DCC Change Requests

No DCC Change Requests will be implemented in this release.

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	✓			✓	✓
MP077	✓	✓	✓	✓	✓
MP090	✓	✓	✓	✓	✓
MP105	✓				✓
MP138	✓			✓	✓
MP149	✓	✓	✓	✓	✓
MP150					
MP157	✓	✓	✓	✓	✓
MP158				✓	
MP164					
MP180					

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
All SEC Parties	<ul style="list-style-type: none"> • All Parties will be able to recognise NGNM Alerts that are not defined in the GBCS.

SEC Party impacts	
Participant	Summary of impacts
	<ul style="list-style-type: none"> All Users can use the DCC Service Flags to be given information on the status of a SMS, so if they change, all Users will be impacted. The provisions for raising Draft Proposals will be amended by opening them up for more organisations to raise them. DUIS versions 1.0 and 2.0 will no longer be available to Parties.
Supplier Parties	<ul style="list-style-type: none"> Suppliers will receive additional two new DCC Alerts notifying whether a firmware Image have successfully reached the Communications Hub. Suppliers will have the capability to send SR11.2 when a Device is in a 'Suspended' state in the SMI, instead of it being rejected by the DCC E5 authorisation check. When using SR11.3, the firmware version in the response will be used to update the Device status in the SMI.
Electricity Network Parties	<ul style="list-style-type: none"> <i>No additional impacts</i>
Gas Network Parties	<ul style="list-style-type: none"> <i>No additional impacts</i>
Other SEC Parties	<ul style="list-style-type: none"> Device manufacturers will need to ensure that Devices are built to the revised specifications resulting from these modifications. Other SEC Parties will have the option to use the additional testing services offered by the DCC. IRPs will ensure Devices operate as they are intended.

DCC impacts	
Area impacted	Summary of impacts
Operational changes	<ul style="list-style-type: none"> <i>No additional impacts.</i>
All Service Providers	<ul style="list-style-type: none"> SMETS2+ Service Providers are required to track firmware Images to the Communications Hub and target Devices.
DCC User Interface Specification	<ul style="list-style-type: none"> A new DUIS version will be released to implement changes to existing Service Requests and to implement a new Service Request as well as additional DCC Alerts. DUIS versions 1.0 and 2.0 will be removed from the SEC.
Data Services Provider (DSP)	<ul style="list-style-type: none"> The following DSP components will be affected: <ul style="list-style-type: none"> CSP Smart Meter Wide Area Network (SM WAN) Gateway and CSP Interfaces Support of new DCC Service Flags Changes to the Self-Service Interface (SSI) to enable the read inventory to include firmware versions Anomaly detection volume thresholds DCC User Gateway Interface Design Specification (DUGIDS) updates, DUIS Service Requests, and MMC, Alerts and Messages Support for SR11.2 'Read Firmware' for PPMIDs and HCALCSs Support for SR11.3 'Activate Firmware' on HCALCSs

DCC impacts	
Area impacted	Summary of impacts
	<ul style="list-style-type: none"> ○ Support for new DCC Alerts associated with OTA firmware updates ○ Updates to the Central Products List (CPL) ○ New and changes to existing GBCS Use Cases ○ DUGIDS definition for new SR11.4 'Update PPMID Firmware' ○ Update the Service User Simulator (SUS) to incorporate the latest Parse & Correlate (P&C) software for NGNM Alerts ○ Processing of SR11.2 will be facilitated when a Device is Suspended. ○ The firmware version in the SR11.3 response will be used to update the Device status in the SMI.
Communication Services Providers (CSP)	<ul style="list-style-type: none"> ● <i>No additional impacts – The CSP System changes for SECMP0007 will be implemented in the June 2022</i>

SEC document impacts

The following SEC documents will be updated in this release:

- Section A 'Definitions and Interpretation'
- Section C 'Governance'
- Section D 'Modification Process'
- Section H 'DCC Services'
- Section K 'Charging Methodology'
- Schedule 7 'Specimen Enabling Services Agreement'
- Schedule 8 'GB Companion Specification'
- Schedule 9 'Smart Metering Equipment Technical Specifications'
- Schedule 10 'Communications Hub Technical Specifications'
- Schedule 11 'TS Applicability Tables'
- Appendix E 'DCC User Interface Services Schedule'
- Appendix J 'Enduring Testing Approach Document'
- Appendix X 'Registration Data Interface Specification'
- Appendix AB 'Service Request Processing Document'
- Appendix AD 'DCC User Interface Specification'
- Appendix AF 'Message Mapping Catalogue'

Each of these documents is affected by the following modifications:

SEC document impact matrix											
Document	SECMP0007	MP077	MP090	MP105	MP138	MP149	MP150	MP157	MP158	MP164	MP180
Section A								✓			
Section C											✓
Section D						✓					
Section H					✓						
Section K					✓						
Schedule 7					✓						
Schedule 8	✓		✓				✓		✓	✓	
Schedule 9	✓								✓	✓	
Schedule 10	✓										
Schedule 11	✓		✓	✓			✓	✓	✓	✓	
Appendix E	✓										
Appendix J					✓						
Appendix X		✓									
Appendix AB	✓										
Appendix AD	✓			✓						✓	
Appendix AF	✓									✓	

The document impacts for some modifications 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 these modifications evolve.

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

Technical documentation versions and validity

The following versions of each the Technical Specifications will be implemented in the November 2021 SEC Release:

Technical Specification impact matrix								
Tech Spec	New Sub-Version	Applicable GBCS version	SECMP 0007	MP090	MP105	MP150	MP158	MP164
ESMETS	v5.1	v4.1					✓	
PPMIDTS	v4.4	v4.1	✓					✓
HCALCSTS	v5.1	v4.1	✓					✓
CHTS	v1.5	v4.1	✓					

Technical Specification impact matrix								
Tech Spec	New Sub-Version	Applicable GBCS version	SECMP 0007	MP090	MP105	MP150	MP158	MP164
GBCS	v4.1	N/A	✓	✓			✓	✓
DUIS	v5.0	N/A	✓		✓	✓		✓
MMC	v5.0	N/A	✓					✓

Other code impacts

MP077 cross-Code impacts

MP077 will impact both the Retail Energy Code and Xoserve.

The MRA will be affected by changing the D0350 flow, used in the industry Registration Data process. This flow is used so that the DCC notifies a Meter Point Administration Service (MPAS) that it is providing communications services to a metering point and provides any data updates required for that MPAS. As the DCC is only limited by how many flows are needed (one MPAN/MPRN equates to one flow) in an update and with the MRA saying there is no cap on the content or how many flows can be placed in a single file update, this results in the chance of thousands of Devices potentially changing Flag state all at once. When the MRA transitions to the Retail Energy Code (REC), the REC Code Manager will raise a REC Change Proposal in September 2021 to reflect the changes introduced by the SEC in the Data Specification from November 2021.

Xoserve will be affected by changes to the UK Link Manual so it can set out guidance surrounding the changes to any flags and consequential impacts on Registration Data Providers (RDPs). Xoserve additionally stated that to mirror the impacts of this modification, a proposal has been raised through it to ensure that all impacted Codes facilitate their changes on the same date. This proposal is called [XRN 5142 'New Allowable Values for DCC Service Flags in DXI File from DCC'](#).

MP180 cross-Code impacts

MP180 has no impact on other Codes. It links obligations under the SEC to clauses in the BSC.

3. Implementation timeline

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

This timeline includes dates for approval of the TAD, 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 Sub-Committees 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 Operations Group, Testing Advisory Group (TAG) and Change Sub-Committee (CSC) meetings and will be confirmed as the DCC prepares the TAD.

Release implementation timetable		
Date	Event	Notes
13 Nov 20	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.
21 Jan 21	DCC submits draft SEC Release TAD	
27 Jan 21	TAG reviews draft SEC Release TAD	
Feb 21	DCC consults on draft SEC Release TAD	The DCC will consult the industry on the draft TAD.
22 Mar 21	DCC submits updated SEC Release TAD	The TAD will be updated to account for comments provided by the TAG and from the consultation.
31 Mar 21	TAG reviews updated SEC Release TAD	The TAG will provide a view to the Panel on whether this document is suitable for use.
16 Apr 21	Panel reviews SEC Release TAD	The Panel will review the TAD and incorporate it into the RID.
19 Apr 21	SIT commences	
14 May 21	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.
6 Jul 21	Operations Group reviews the DCC's progress against the operational acceptance criteria	
3 Aug 21	Operations Group reviews the DCC's progress against the operational acceptance criteria	
7 Sep 21	Test Participants inform DCC of their regression testing plans	By 10 Working Days before UIT begins
7 Sep 21	Operations Group reviews the DCC's progress against the operational acceptance criteria	
17 Sep 21	DCC submits SIT Completion Report	
21 Sep 21	UIT commences	
28 Sep 21	DCC submits evidence against the operational acceptance criteria	
29 Sep 21	TAG reviews SIT Completion Report and status against the testing acceptance criteria	The TAG will provide a recommendation to the CSC on whether SIT has been completed successfully and on whether the release should be implemented as planned.
5 Oct 21	Operations Group reviews status against the operational acceptance criteria	The Operations Group will provide a recommendation on whether the release should be implemented as planned.

Release implementation timetable		
Date	Event	Notes
		<i>Preliminary reviews of progress will be scheduled across preceding meetings.</i>
26 Oct 21	CSC go/no-go decision	The CSC will review the status of the release against the acceptance criteria and will determine if the release should be implemented as planned.
26 Oct 21	Test Participants to provide regression testing results to DCC	By five Working Days before UIT completion
2 Nov 21	UIT window closes	
4 Nov 21	Release go-live	The changes are implemented.

4. Test strategy

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 has been provided as Annex A to this document. This covers the DCC's approach to SIT.

User testing approach

The DCC's SEC Release Testing Approach Document has been provided as Annex A to this document. This covers the DCC's approach to UIT.

5. Costs

This section summarises the costs that will be incurred by the DCC and 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 via the individual DCC Assessments:

Breakdown of DCC implementation costs					
Modification	Design, Build & PIT	SIT	UIT	Implement to live	Application Support
SECMP0007 ³	£13,600,000	£3,800,000	£1,600,000	N/A	£1,100,000
MP077	£387,378				
MP090	£17,000	N/A	N/A	N/A	N/A
MP105	£230,331				

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.

Costs which are not split by each of the five categories in the tables are for those modifications where only one DCC Service Provider is impacted. These costs are available upon request from SECAS for SEC Parties by emailing sec.change@gemserv.com.

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 five days effort, equating to around £3,000, to update and implement the changes to the SEC. SECAS estimate 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

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

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

³ Only SEC documentation changes and DSP elements will be implemented in the November 2021 SEC Release and the costs these for elements of SECMP0007 will be significantly lower than the full implementation costs listed here.

Operational acceptance criteria

1. The DCC has brought to readiness all the new and changed components needed to provide the new services. This will include completing the service design and proving the service operations capability.
2. The DCC has demonstrated that all pre-existing services will be stable in the run-up to deployment of the release.
3. The DCC has proven that the new services can be operated alongside, and integrated with, the existing services.
4. The DCC has assessed the risk posed by existing problems and defects in the existing live service, and the implications these will have for the revised service.
5. The DCC has assessed and addressed the impact on Users arising from any issues, defects or workarounds within the new services.
6. The DCC has demonstrated that lessons learnt from previous SEC Releases and other DCC changes have been taken on board.
7. The DCC has demonstrated there will be no detrimental impact on consumers' experience.
8. The DCC has completed assurance of the Business Continuity and Disaster Recovery processes.
9. SECAS will be ready to implement the approved changes to the SEC on the agreed implementation date.
10. SECAS has brought to readiness all the new and changed components that it is responsible for that are needed to support the new services.

Testing acceptance criteria

1. The DCC has developed the coding for each approved change and confirmed it will be able to deploy this to the production environment on the agreed implementation date.
2. The DCC has completed and closed each test phase against the agreed exit criteria specified in the TAD.
3. The DCC has successfully completed regression testing.
4. The DCC has allowed adequate opportunity for Users to test the changes prior to deployment.
5. The DCC has confirmed that there are no Severity 1 or 2 defects outstanding that would be deployed to the live environment.
6. 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 specified in the TAD.
7. The DCC has demonstrated that the SIT and UIT test environments were aligned to the solution being deployed to the production environment; if there were any differences, these were identified and the risks these posed demonstrably managed.

Appendix 1: Version control

Document history		
Version	Date	Changes
0.1	24 Sep 2020	First draft issued to the Technical Architecture and Business Architecture Sub-Committee (TABASC), the Operations Group and SEC Parties for comment.
0.2	5 Oct 2020	Updated following SECMP0015 falling out of scope and SECMP0067 falling into scope.
0.3	13 Oct 2020	Updating to reflect the Operations Group checkpoints in the implementation timeline.
0.4	29 Oct 2020	Updated following the rejection of SECMP0067 and the approval of SECM0007 and MP090.
0.5	6 Nov 2020	Updated following MP077 and MP129 being added to the scope, SECMP0056 being removed from scope and to show MP106 as no longer DCC System impacting.
1.0	20 Nov 2020	Version baselined by the Panel to cover the proposed scope of the release on the DCC Systems.
2.0	15 Dec 2020	Updated following MP099 being removed from scope.
3.0	29 Jan 2021	Updated following MP122B being removed from scope and MP143 falling into scope.
4.0	26 Feb 2021	Updated following MP150 falling into scope.
5.0	12 Mar 2021	Updated following MP116 falling into scope.
6.0	29 Mar 2021	Updated following the approval of MP105 and MP150.
6.1	7 May 2021	Updated for the full scope of the release and the updated timeline, presented to the Panel to be baselined.
7.0	14 May 2021	Version baselined by the Panel to cover the full proposed scope of the release.
8.0	21 May 2021	Updated following MP164 falling into scope.
9.0	4 Aug 2021	Updated for the following: <ul style="list-style-type: none"> • Approval of MP138, MP157 and MP158 • MP116 being removed from scope • Updates to modification Party and document impacts
10.0	17 Aug 2021	References to Panel updated to Change Sub-Committee in the implementation timeline and acceptance criteria.
11.0	1 Sep 2021	Updated following MP180 falling into scope.
12.0	29 Sep 2021	Updated following the approval of MP164.

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
BSC	Balancing and Settlement Code
CPL	Central Products List
CSC	Change Sub-Committee
CSP	Communications Service Provider
DCC	Data Communication Company
DSP	Data Service Provider
DUGIDS	DCC User Gateway Interface Design Specification
DUIS	DCC User Interface Specification
ESMETS	Electricity Smart Metering Equipment Technical Specifications
ETAD	Enduring Testing Approach Document
GBCS	GB Companion Specification
HAN	Home Area Network
HCALCS	HAN Connected Auxiliary Load Control Switch
IHD	In-Home Display
IRP	Issue Resolution Proposal
MHHS	Market-wide Half-Hourly Settlement
MMC	Message Mapping Catalogue
MRA	Master Registration Agreement
MPAN	Meter Point Administration Number
MPAS	Meter Point Administration Service
MPRN	Meter Point Reference Number
NGNM	Non GBCS Non-Mandated
OTA	over-the-air
P&C	Parse & Correlate
PIT	Pre-Integration Testing
PPMID	Prepayment Interface Device
RDP	Registration Data Provider
REC	Retail Energy Code
RID	Release Implementation Document
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SECCo	Smart Energy Code Company
SIT	System Integration Testing
SM WAN	Smart Meter Wide Area Network
SMETS	Smart Metering Equipment Technical Specifications

Glossary	
Acronym	Full term
SMI	Smart Metering Inventory
SMS	Smart Metering System
SR	Service Request
SSI	Self-Service Interface
SUS	Service User Simulator
TABASC	Technical Architecture and Business Architecture Sub-Committee
TAD	Testing Approach Document
TAG	Testing Advisory Group
UIT	User Integration Testing