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November 2020 SEC Release (29 November 2020)

SEC Release Implementation Document Version 10.0



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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.

Contents

1. Scope	3
2. Impacts	6
3. Implementation timeline	11
4. Test strategy	13
5. Costs	14
6. Acceptance criteria	15
Appendix 1: Version control	17
Appendix 2: Glossary	18

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.

1. Scope

Approved Modification Proposals

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

- [SECMP0062 'Northbound Application Traffic Management – Alert Storm Protection'](#) will 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 consolidating Alerts, being implemented in the June 2020 SEC 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 consolidated Alerts via the metadata in the Alerts that are allowed through.
- [MP080 'Managing DUIS uplifts'](#) will include all existing and future DUIS versions in SEC Schedule 11 'Technical Specification Applicability Table' (TSAT). By allowing these versions to be end dated, it will allow the DCC to manage fewer versions of the DUIS and, in the long term, reduce testing costs.
- [MP081 'Alignment of DUIS and CHISM to reflect current DCC Processing'](#) will align the SEC to accurately reflect the DCC processing.
- [MP093 'Implementing IRP511 and CRP535 to support GBCS v3.2 devices'](#) will fully deliver the functionality of two resolution proposals, IRP511 'Set Clock Alerts Refs in Alert Tables Incorrect' and CRP535 'Restoring Removed Devices from the HAN'. These had been intentionally left out of the November 2019 SEC Release in order to reduce any potential impact on testing for the Initial Operating Capacity (IOC).
- [MP098 'Incorporation of multiple Issue Resolution Proposals into the SEC - Batch 3'](#) will implement a batch of Issue Resolution Proposals (IRPs) agreed by the Technical Specification Issue Resolution Sub-group (TSIRS).
- [MP101 'Large Gas Meter Displays'](#) will amend Section 4 of the Smart Metering Equipment Technical Specifications (SMETS) to make Large Gas Meters exempt from the User Interface requirements for consumption information.
- [MP102A 'Power Outage Alerts triggered by an OTA firmware upgrade'](#) proposes to require future Electricity Smart Metering Equipment (ESME) do not generate a Power Outage Alert (POA) when an over-the-air (OTA) firmware update is carried out.
- [MP103 'DCC SOC2 Assessments'](#) will retain the approach that requires the DCC to procure a DCC Security Assessment (whereby the procurement effort and cost of the assessment is for the DCC to bear) but to emulate the User Security Assessment process by adopting much of the legal text in SEC Section G8 that applies to Users.
- [MP110 'Aligning SEC Appendix D with DCC Processes'](#) will amend the obligations in SEC Appendix D 'SMKI Registration Authority Policies and Procedures' (SMKI RAPP) to reflect the current DCC processes. The changes agreed by the DCC and the Smart Metering Key Infrastructure (SMKI) Policy Management Authority (PMA) will ensure that the independent assurance is satisfied.
- [MP112 'Setting the Privacy Assessment Assurance Status'](#) will amend two of the four assurances statuses that are assigned to a SEC Party upon completing the Full Privacy Assessment (FPA). This will offer a more accurate reflection of the situation than what is

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currently stated in the SEC. Furthermore, there will be a change to the current process where a Party is set the status of 'Rejected' ('Deferred' under current drafting). This will provide assurances to all Parties and the Security Sub-Committee (SSC) that deficiencies have been identified and are under review.

- [MP115 'Changes to the NCSC Good Practice Guides'](#) will update the references to discontinued Good Practice Guides (GPGs) with references to replacement SMKI PMA and SSC guidance published on the SECAS website. In addition, it will include provisions for updated or replacement standards, procedures and guidelines in relation to the SMKI Document Set in the SEC. This is also the case for the transitional periods for such documents.
- [MP118 'Communications Hub Finance Charges'](#) will amend SEC Sections J1.2 and J1.7 so that DCC is no longer obliged to bill Communications Hub Finance Charges under separate invoices.
- [MP120 'Correcting DUIS Matrix for SRV7.7 Eligible Users'](#) is a housekeeping change that will make an amendment to the 'Service Request Matrix' within the DCC User Interface Specification (DUIS) to show Electricity Distributors as an eligible user of SRV7.7 and align this table with Section 3.8.92.1 of the DUIS. This will also be reflected in the DCC User Interface Services Schedule. This would prevent any confusion for Parties seeking to understand the list of eligible users for SRV7.7.
- [MP124 'Consequential changes to DUIS for SMETS1 Alerts'](#) will make a consequential change to the DUIS to ensure that the SECMP0062 solution will include SMETS1 Alerts having notification headers. In particular, two entries are required for Table 4 in Section 1.4.11.2 'SMETS1ResponseMessageFormat' to include two data items.
- [MP127 'SMKI RAPP Security Screening clarification'](#) will amend the SMKI RAPP so that it explicitly states that Authorised Responsible Officers (AROs) shall be subject to security screening to British Standard (BS) 7858:2019 or equivalent. Note this is already an obligation under Section G 'Security'.
- [MP131 'Default maximum demand configuration conflict'](#) will make a correction to the GB Companion Specification (GBCS) Table 28d to align the table with ENA-required default configuration.
- [MP133 'Consequential changes to SEC Section G'](#) will add the "Shared Resources" Sections G5.25 and G5.26 to Section G1.7 so that Export Suppliers and Registered Supplier Agents (RSAs) are still obligated to follow these requirements as per the original intention of [SECMP0044 'User Security Assessment of a Shared Resource'](#).
- [MP142 'Clarification to the MMC'](#) will insert the omitted term "hexadecimal representation of" into the legal text used in MP124 for Section 5.101.2.4 of the Message Mapping Catalogue (MMC) is so that it aligns with Users expectations.

No further modifications are expected to be added.

DCC Change Requests

The following DCC Change Requests are planned to be implemented alongside this SEC Release:

- CR1088 'Production Proving'
- CR1145 'Auxiliary Proportional Load Control'
- CR1233 'IRP554 Future Date Command Handling'
- CR1254 'CSP Testing to Support Proportional Load Control'
- CR1277 'Install Code validation reinstatement'
- CR1355 'Organisation Certificates – XML signing'

DCC Change Requests do not form part of a SEC Release, and so this RID does not cover the details of the impacts these will have.

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
SECMP0062	✓	✓	✓	✓	✓
MP080	✓	✓	✓	✓	✓
MP081					
MP093					✓
MP098	✓	✓	✓	✓	✓
MP101	✓			✓	
MP102A	✓	✓		✓	
MP103					✓
MP110					
MP112	✓	✓	✓	✓	
MP115	✓	✓	✓	✓	✓
MP118	✓	✓	✓	✓	✓
MP120		✓			
MP124	✓	✓	✓	✓	✓
MP127					
MP131					
MP133	✓	✓		✓	
MP142					

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"> Parties will be notified of when Alerts have been consolidated via the metadata in Alerts that have been allowed through. Parties may find their Service Requests subject to rejection if their usage exceeds their allocated capacity during times of high traffic.

SEC Party impacts	
Participant	Summary of impacts
	<ul style="list-style-type: none"> Parties who still use DUIS v1.1 or v2.0 will be required to uplift to DUIS v3.0 or v3.1 by the 2021 November Release (26 November 2021). The amendment to the current assurance statuses relating to the completion of the FPA will affect all Parties wishing to complete the User Entry Process Tests (UEPT). Parties will be given access to replacement SMKI PMA and SSC Guidance in place of the GPGs currently referenced in the SEC. It will be clearer to Parties reading the SMKI RAPP that AROs are subject to BS7858:2019 or equivalent.
Supplier Parties	<ul style="list-style-type: none"> Suppliers may receive queries from consumers asking for guidance on how to interpret the Large Gas Meter display. Suppliers will be able to install Technical Specification-compliant ESME in Consumers' premises.
Electricity Network Parties	<ul style="list-style-type: none"> Electricity Network Parties will get clarity that they are eligible users of SRV7.7. Electricity Network Parties will benefit as the maximum demand data they will receive will be derived from ESME that comply with each of the Technical Specifications.
Gas Network Parties	<ul style="list-style-type: none"> No further impacts.
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. Large Gas Meters will no longer be required to follow the same standardised SMETS2 display requirements for Gas Smart Metering Equipment (GSME). Meter Manufacturers will be able to manufacture Devices that comply with the Technical Specifications as the maximum demand configurations will now be aligned across the specifications.

DCC impacts	
Area impacted	Summary of impacts
DCC User Interface Specification	<ul style="list-style-type: none"> A new DUIS version will be released to implement the changes to the metadata for Alerts when consolidation is taking place.
Traffic Management	<ul style="list-style-type: none"> The DCC will introduce and manage the process for controlling Service Request traffic through the DCC Systems. The DCC will be required to produce monthly reports on the usage of this process. SMETS1 Alerts will be given indicators that Alert throttling is in effect and the number of Alerts that have been consolidated by the traffic management mechanism to the User.
Auditing	<ul style="list-style-type: none"> The operational effectiveness of the DCC's security controls will be measured further. The DCC can ensure its processes are effective and appropriate and comply with the audit requirements of the tScheme.

SEC document impacts

The following documents will be updated in this release:

- Section A ‘Definitions and Interpretation’
- Section G ‘Security’
- Section I ‘Data Privacy’
- Section J ‘Payment of Charges’
- Section L ‘Smart Metering Key Infrastructure’
- Schedule 8 ‘GB Companion Specification’
- Schedule 9 ‘Smart Metering Equipment Technical Specifications’
- Schedule 11 ‘TS Applicability Tables’
- Appendix A ‘Device Certificate Policy’
- Appendix B ‘Organisation Certificate Policy’
- Appendix D ‘SMKI Registration Authority Policies and Procedures’
- Appendix E ‘DCC User Gateway Services Schedule’
- Appendix I ‘CH Installation and Maintenance Support Materials’
- Appendix L ‘SMKI Recovery Procedure’
- Appendix Q ‘IKI Certificate Policy’
- 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	SECMPO062	MP080	MP081	MP093	MP098	MP101	MP102A	MP103	MP110	MP112	MP115	MP118	MP120	MP124	MP127	MP131	MP133	MP142	
Section A		✓						✓			✓								
Section G								✓			✓						✓		
Section I										✓									
Section J												✓							
Section L											✓								
Schedule 8					✓												✓		
Schedule 9					✓	✓	✓												
Schedule 11		✓			✓	✓	✓										✓		
Appendix A											✓								

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SEC document impact matrix																		
Document	SECMPO062	MP080	MP081	MP093	MP098	MP101	MP102A	MP103	MP110	MP112	MP115	MP118	MP120	MP124	MP127	MP131	MP133	MP142
Appendix B											✓							
Appendix D									✓		✓				✓			
Appendix E													✓					
Appendix I			✓															
Appendix L											✓							
Appendix Q											✓							
Appendix AD	✓		✓	✓									✓	✓				
Appendix AF				✓										✓				✓

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 new version of the **GB Companion Specification (GBCS)** will become effective under this release:

- Version 4.0

The following new version of the **Smart Metering Equipment Technical Specifications (SMETS)** will become effective under this release:

- SMETS2 Version 5.0

The following new version of the **DCC User Interface Specification (DUIS)** and the **Message Mapping Catalogue (MMC)** will become effective under this release:

- Version 4.0

The contents of all relevant Modification Proposals will be included in all new versions introduced. No existing versions will be affected.

These documents will be formally added to the SEC on the day the release goes live, with the Installation and Maintenance Applicability Period Start Dates for these documents being set to this date. Draft versions of all documents will be available on the SEC Website beforehand and updated as changes are approved.

No Installation and Maintenance Validity Period End Dates will be set under this release.

Other Code impacts

[MP101 'Large Gas Meter Displays'](#) will have cross-Code impacts on the Supply Point Administration Agreement (SPAA).

Whilst the SPAA has limited interactions with the SMETS, and no interactions with the MID, the SPAA has made a minor clarificatory amendment in line with this modification. This will mitigate any issues encountered with Large Gas Meters installed at Domestic premises.

The SPAA has defined Large Gas Meters in its Code, in alignment with the SEC. It has also exempted Large Gas Meters from the display requirements for consumption information. The SPAA changes were implemented in the June 2020 SPAA Release and are now live.

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 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.

The DCC requested the implementation date be delayed from 5 November 2020 to 29 November 2020. This was due to the complexity of the release and to allow for a sufficient User testing window to be provided. This delay will also mitigate the risk of timeline delays arising from the coronavirus. The Panel agreed to request this change of date from the Authority, who subsequently approved this request.

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.
22 Apr 20	DCC submits draft SEC Release TAD	
29 Apr 20	TAG reviews draft SEC Release TAD	
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.
Late May 20 – Early Jun 20	DCC consults on draft SEC Release TAD	The DCC will consult the industry on the draft TAD.
12 Jun 20	DCC submits updated SEC Release TAD	The TAD will be updated to account for comments provided by the TAG and from the consultation.
19 Jun 20	Panel reviews SEC Release TAD	The Panel will review the TAD and conditionally incorporate it into the RID subject to TAG review.
24 Jun 20	TAG reviews updated SEC Release TAD	The TAG will provide a view on whether this document is suitable for use.
25 Jun 20	SIT commences	
Jun 20	Technical documentation baselined	The technical documentation is baselined for the approved changes at that time following BEIS designation of the changes for the DCC Change Requests.
Jun 20	DCC publishes design specifications	
Jun 20 – Aug 20	SECAS produces full release redlining	Full redlining for the release will be published and updated following decisions being received on all pending modifications. This may require technical documentation to be re-baselined.

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Release implementation timetable		
Date	Event	Notes
21 Sep 20	Test Participants inform DCC of their regression testing plans	By 10 Working Days before UIT begins.
05 Oct 20	UIT commences	
21 Oct 20	DCC submits SIT Completion Report and evidence against the testing acceptance criteria	
27 Oct 20	DCC submits evidence against the operational acceptance criteria	
28 Oct 20	TAG reviews SIT Completion Report and status against the testing acceptance criteria	The TAG will provide a recommendation to the Panel on whether SIT has been completed successfully and on whether the release should be implemented as planned.
03 Nov 20	Operations Group reviews status against the operational acceptance criteria	The Operations Group will provide a recommendation to the Panel on whether the release should be implemented as planned. <i>Preliminary reviews of progress will be scheduled across preceding meetings.</i>
03 Nov 20	Test Participants provide regression testing results to DCC	By five Working Days before UIT completion.
10 Nov 20	UIT window closes	
13 Nov 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.
29 Nov 20	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 are expected to be £4,800,775.

The DCC has provided the following cost breakdown for this release:

Breakdown of DCC implementation costs	
Stage	Costs
Design, Build & PIT	£121,142
SIT	£2,238,808
UIT	£1,119,408
Implement to Live	£373,135
Post-PIT contingency (25%)	£932,837
Application Support	£15,515

No impact on operational costs have been identified.

The full set of changes for SECMP0062 were 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 June 2020 SEC Release.

The post-Pre-Integration Testing (PIT) costs for the combined scope provided at Preliminary Assessment stage are listed above. These costs have been split equally between the SEC Release and the DCC Change Requests, and the costs above reflect the portion allocated to the SEC Release. Final costs will be confirmed in July 2020, once all Impact Assessment responses from the DCC's Service Providers have been submitted and collated.

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

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

Prior to go-live, the Operations Group and the Testing Advisory Group (TAG) 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.

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	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.
1.0	15 Nov 19	Version baselined by the Panel to cover the proposed scope of the release on the DCC Systems.
2.0	22 Jan 20	Updated to reflect the change in scope on the DCC Systems and revised acceptance criteria agreed by the Panel on 17 Jan 20.
3.0	25 Feb 20	Updated for the approval of SECMP0062 and for MP081 being moved to this release.
3.1	07 May 20	Updated for the full scope of the release and the updated timeline, presented to the Panel to be baselined.
4.0	20 May 20	Version baselined by the Panel to cover the full proposed scope of the release.
5.0	01 Jun 20	Updated for the approval of MP080 and MP115 and the rejection of MP084.
6.0	25 Jun 20	Updated for the approval of MP098, MP101 and MP110, and to include the approved TAD and the updated DCC costs.
7.0	27 Jun 20	Updated for the approval of MP103, MP118 and MP124, the inclusion of MP131 and MP133 in the scope of the release, and the change of implementation date approved by the Authority.
8.0	26 Aug 2020	Updated for the approval of MP127, MP131 and MP133, and to make amendments to MP080 and MP124 document impacts.
9.0	8 Oct 2020	Updated for the rejection of MP088 and the approval of MP102A.
10.0	16 Oct 2020	Updated for the approval of MP142.

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
Alt HAN	Alternative Home Area Network
DCC	Data Communication Company
DUIS	DCC User Interface Specification
ESME	Electricity Smart Metering Equipment
FPA	Full Privacy Assessment
GBCS	GB Companion Specification
GPG	Good Practice Guide
GSME	Gas Smart Metering Equipment
IOC	Initial Operating Capability
IRP	Issue Resolution Proposal
MMC	Message Mapping Catalogue
OTA	over the air
PIT	Pre-Integration Testing
POA	Power Outage Alert
RID	Release Implementation Document
RSA	Registered Supplier Agent
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	System Integration Testing
SMETS	Smart Metering Equipment Technical Specifications
SMKI	Smart Metering Key Infrastructure
SMKI PMA	SKMI Policy Management Authority
SMKI RAPP	SMKI Registration Authority Policies and Procedures
SPAA	Supply Point Administration Agreement
SSC	Security Sub-Committee
TABASC	Technical Architecture and Business Architecture Sub-Committee
TAD	Testing Approach Document
TAG	Testing Advisory Group
TSAT	Technical Specification Applicability Table
TSIRS	Technical Specification Issue Resolution Sub-group
UEPT	User Entry Process Tests
UIT	User Integration Testing



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