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November 2022 SEC Release (3 November 2022)

SEC Release Implementation Document

Version 0.4

23 November 2021



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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.

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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

Approved Modification Proposals

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

- [SECMP0015 'GPF timestamp for reading instantaneous Gas values'](#) will allow Parties and Devices reading the instantaneous values from the Gas Proxy function (GPF) to know the time on the Gas Smart Metering Equipment's (GSME's) clock when the value was provided
- [SECMP0056 'IHD / PPMID Zigbee Attributes Available on the HAN'](#) will make Zigbee attributes for Change of Tenancy (CoT) parameters available to Home Area Network (HAN) Devices such as In-Home Displays (IHDs) and Prepayment Meter Interface Devices (PPMIDs) and also mandate IHDs and PPMIDs to query the Electricity Smart Metering Equipment (ESME) and GPF for CoT information.
- [MP099 'Incorporation of multiple Issue Resolution Proposals into the SEC - Batch 4'](#) will incorporate two DCC System impacting Issue Resolution Proposals (IRPs) into the SEC.

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:

- [MP078 'Incorporation of multiple Issue Resolution Proposals into the SEC - Part 2'](#) proposes to incorporate three DCC System impacting IRPs into the SEC. Cut-off date for inclusion: 3 March 2022.
- [MP085A 'Synchronisation of smart meter voltage measurement periods'](#) proposes a change to the SEC Technical Specifications for meter Manufacturers to ensure newly manufactured Devices commence average Root Mean Square (RMS) Voltage Measurement Period readings on the hour or half past the hour (whichever occurs first). Cut-off date for inclusion: 3 May 2022.
- [MP140 'CH Stock Transfer'](#) proposes that the DCC provide a means of allowing SEC Parties to exchange Communications Hub (CH) units between themselves directly, rather than returning them to the DCC. *Estimated cut-off date for inclusion: 23 February 2022.*
- [MP141 'SRV Visibility for Devices on SSI'](#) proposes to allow Supplier Parties and Network Operators to view all the titles of Service Reference Variants (SRVs) and Service Responses that have been associated with a Device that they own. Cut-off date for inclusion: 3 February 2022.
- [MP143 'Incorporating IRPs into GBCS¹ v3 series'](#) proposes to incorporate five non-DCC System impacting IRPs into the SEC. *Estimated cut-off date for inclusion: 3 May 2022.*

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.

¹ Great Britain Companion Specification

DCC Change Requests

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

- CR4427 'Enduring solution for Implementing additional XML Signing credentials' proposes to implement the additional Extensible Markup Language (XML) signing credentials into the DCC's scope, based on a number of other security-related changes identified by the Department for Business, Energy and Industrial Strategy (BEIS) that is related to SEC Section G 'Security'.
- CR4465 'Feature Switch removal' proposes to remove the relevant coding associated with the feature switches after the deployment of the service or when deployment does not happen and will not happen, also known as "Data Service Provider (DSP) feature switching". This is a security requirement to avoid the risk of accidental activation or disablement of a service. It also reduces the potential of a major service interruption as a result of a database containing the feature switches being compromised or amended by a rogue insider.

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
SECMP0015	✓		✓	✓	✓
SECMP0056	✓			✓	✓
MP078	✓			✓	✓
MP085A		✓		✓	
MP099	✓			✓	✓
MP140	✓			✓	✓
MP141	✓	✓	✓		✓
MP143	✓			✓	✓

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"> Supplier and Network Parties will have access to the full list of SRVs and Service Responses a Device has either sent or received.
Supplier Parties	<ul style="list-style-type: none"> Suppliers will be able to see the time at which the instantaneous value reading on the GPF was taken from the GSME. Suppliers' customers will no longer be able to access previous tenants' data. IRPs will be implemented that benefit Suppliers. Suppliers will have a means of exchanging CHs between each other rather than returning them to the DCC and incurring refurbishment and returns costs.
Electricity Network Parties	<ul style="list-style-type: none"> Electricity Network Parties will be provided with average RMS voltage readings that align to half-hourly consumption data.
Gas Network Parties	<ul style="list-style-type: none"> Gas Network Parties will be able to see the time at which the instantaneous value reading on the GPF was taken from the GSME.
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. IHD and PPMID Manufacturers will need to ensure their Devices are able to request the information regarding a CoT from the ESME and GPF. IRPs will be implemented that benefit Device manufacturers. Device Manufacturers may receive fewer orders of CHs if the stock of CHs can shift between Supplier Parties rather than placing orders with the DCC to acquire more CH units.

DCC impacts	
Area impacted	Summary of impacts
Data Services Provider	<ul style="list-style-type: none"> DCC Logistics will share CH stock transfer details with the DSP via the Self-Service Management Interface (SSMI). The DSP will update the SMI with the new Service User ID for the list of transferred Communications Hubs. The DSP will facilitate the implementation of five DCC System impacting IRPs.
Communication Services Providers (CSPs)	<ul style="list-style-type: none"> CHs 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. The CSPs will need to engage with Parties and renegotiate the Communications Hub financing arrangements. The CSPs will facilitate the implementation of five DCC System impacting IRPs.

DCC impacts	
Area impacted	Summary of impacts
Parse and Correlate	<ul style="list-style-type: none"> 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.
Self-Service Interface (SSI)	<ul style="list-style-type: none"> The SSI will be modified to allow Supplier Parties and Network Operators to view the titles of the Service Requests sent to the Devices they own, and the corresponding Service Responses from the Device.

SECAS impacts

SECAS will need to make the updates to the SEC to implement the modifications approved for this release. No other additional impacts have been identified.

SEC document impacts

The following SEC documents will be updated in this release:

- Section F 'Smart Metering System Requirements'
- Section H 'DCC Services'
- Schedule 8 'GB Companion Specification'
- Schedule 9 'Smart Metering Equipment Technical Specifications'
- Schedule 10 'Communications Hub Technical Specifications'
- Schedule 11 'TS Applicability Tables'
- 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	SECMP 0015	SECMP 0056	MP078	MP085A	MP099	MP140	MP141	MP143
Section F						✓		
Section H							✓	
Schedule 8	✓	✓	✓		✓			✓
Schedule 9	✓	✓	✓	✓				
Schedule 10	✓	✓	✓					
Schedule 11	✓	✓	✓	✓	✓			✓

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 2022 SEC Release:

Technical Specification impact matrix								
Tech Spec	New Sub-Version	Applicable GBCS version	SECM P 0015	SECMP 0056	MP078	MP085 A	MP099	MP143
GSMETS	v4.4	v4.2	✓		✓			
ESMETS	v5.2	v4.2		✓	✓	✓		
IHDTS	v4.4	v4.2		✓				
PPMIDTS	v4.5	v4.2		✓				
CHTS	v1.6	v4.2	✓	✓	✓			
GBCS	v3.3	N/A						✓
GBCS	v4.2	N/A	✓	✓	✓		✓	

It has been assumed that only Sub-Versions will be introduced and not any new Principal Versions. Once decision on all of the Technical Specification impacting modifications have been received, we will confirm the final versions being introduced with the Technical Architecture and Business Architecture Sub-Committee (TABASC).

Other code impacts

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 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 Change Sub-Committee (CSC) and other 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 (OPSG), Testing Advisory Group (TAG) and CSC meetings and will be confirmed as the DCC prepares the TAD.

Release implementation timetable		
Date	Event	Notes
30 Nov 21	CSC baselines RID for system-impacting modifications	The CSC will review the RID for DCC System-impacting modifications (including modifications targeted but not approved) and baseline the document.
19 Jan 22	DCC submits draft SEC Release TAD	
26 Jan 22	TAG reviews draft SEC Release TAD	
Feb 22	DCC consults on draft SEC Release TAD	The DCC will consult the industry on the draft TAD.
23 Mar 22	DCC submits updated SEC Release TAD	The TAD will be updated to account for comments provided by the TAG and from the consultation.
30 Mar 22	TAG reviews updated SEC Release TAD	The TAG will provide a view to the CSC on whether this document is suitable for use.
19 Apr 22	CSC reviews SEC Release TAD	The CSC will review the TAD and incorporate it into the RID.
Apr 22	SIT commences	
3 May 22	OPSG reviews the DCC's progress against the operational acceptance criteria	
17 May 22	CSC baselines RID for non-system-impacting modifications	The CSC will review the RID for non-DCC System-impacting modifications (including modifications targeted but not approved) and re-baseline the document to include these.
20 Jul 22	DCC submits SIT Completion Report	
27 Jul 22	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.
Jul 22	Test Participants inform DCC of their regression testing plans	At least 10 Working Days before UIT begins
2 Aug 22	OPSG reviews the DCC's progress against the operational acceptance criteria	
Aug 22	UIT commences	
6 Sep 22	OPSG reviews the DCC's progress against the operational acceptance criteria	
Sep 22	Test Participants to provide regression testing results to DCC	At least five Working Days before UIT completion
Sep 22	UIT window closes	
27 Sep 22	DCC submits evidence against the operational acceptance criteria	

Release implementation timetable		
Date	Event	Notes
4 Oct 22	OPSG reviews status against the operational acceptance criteria	The Operations Group will provide a recommendation on whether the release should be implemented as planned.
18 Oct 22	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.
3 Nov 22	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 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 via the individual DCC Assessments:

Breakdown of DCC implementation costs					
Modification	Design, Build & PIT	SIT	UIT	Implement to live	Application Support
SECMP0015	£1,335,568	£437,032			

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Breakdown of DCC implementation costs					
Modification	Design, Build & PIT	SIT	UIT	Implement to live	Application Support
SECMP0056	£1,434,761	£251,307			N/A
MP078	£1,886,716	£727,257	N/A	£20,000	£1,573 ²
MP099	£188,446	£89,238	N/A	N/A	N/A
MP140	<i>£301,000 to £625,000</i>	<i>TBC</i>	<i>TBC</i>	<i>TBC</i>	<i>TBC</i>
MP141	£124,301	£68,967		£6,571	£8,346 ³
MP143	<i>£0 to £150,000</i>	<i>TBC</i>	<i>TBC</i>	<i>TBC</i>	<i>TBC</i>

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 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.

² This is a one-off charge for the DSP only.

³ Application Support costs for MP141 have been calculated for a period of two months after the solution is Implemented.

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	27 Sep 2021	First draft published.
0.2	20 Oct 2021	Updated to reflect MP107 being withdrawn and MP085A being added to scope.
0.3	5 Nov 2021	Updated to reflect non-Modification Proposal DCC Change Requests targeted for the release.
0.4	23 Nov 2021	Updated to reflect updated costs for MP141 and MP143 and to reflect an updated implementation timeline.

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 for Business, Energy and Industrial Strategy
CH	Communications Hub
CHTS	Communications Hub Technical Specifications
CoT	Change of Tenancy
CSC	Change Sub-Committee
CSP	Communication Services Provider
DCC	Data Communication Company
DSP	Data Services Provider
ESME	Electricity Smart Metering Equipment
ESMETS	Electricity Smart Metering Equipment Technical Specification
GBCS	GB Companion Specification
GPf	Gas Proxy Function
GSME	Gas Smart Metering Equipment
GSMETS	Gas Smart Metering Technical Specification
HAN	Home Area Network
IHD	In-Home Display
IHDTs	In-Home Display Technical Specification
IRP	Issue Resolution Proposal
MMC	Message Mapping Catalogue
PIT	Pre-Integration Testing
PPMID	Prepayment Interface Device

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Glossary	
Acronym	Full term
PPMIDTS	Prepayment Meter Interface Device Technical Specification
RID	Release Implementation Document
RMS	Root Mean Square
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	System Integration Testing
SMETS	Smart Metering Equipment Technical Specifications
SRV	Service Request Variant
SSI	Self-Service Interface
SSMI	Self-Service Management Interface
TABASC	Technical Architecture and Business Architecture Sub-Committee
TAD	Testing Approach Document
TAG	Testing Advisory Group
UIT	User Integration Testing
XML	Extensible Markup Language