SEC
Smart Energy Code

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Smart Energy Code

November 2019 SEC Release

(29 November 2019)

SEC Release Implementation Document

Version 5.0

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About this document

This document is the Smart Energy Code (SEC) Release Implementation Document (RID) for the November 2019 SEC Release, due to be implemented on 29 November 2019. 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.

Contents

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.

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1. Scope

Approved Modification Proposals

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

- SECMP0018 'Standard Electricity Distributor Configuration Settings' will amend the Great Britain Companion Specification (GBCS) to specify the standard Electricity Distributor configuration settings to be applied to an Electricity Smart Meter by the Manufacturer.

- SECMP0023 'Correct Units of Measure for Uncontrolled Gas Flow Rate' will amend the accuracy of the Uncontrolled Gas Flow Rate value from integer to four decimal places.

- SECMP0025 'Electricity Network Party Access to Load Switching Information' will give Electricity Network Parties (ENPs) access to Auxiliary Load Control Switch (ALCS) and Home Area Network (HAN) Connected Auxiliary Load Control Switch (HCALCS) information from the Smart Metering System. ENPs will also be informed when changes are made to existing load switching regimes.

- SECMP0039 'Communication Hub returns notification mechanism for Other SEC Parties' will allow Registered Supplier Agents (RSAs) to submit the Service Requests triggering a Communications Hub Return in a fault or no-fault situation.

- SECMP0055 'Incorporation of multiple Issue Resolution Proposals into the SEC' will implement a set of Issue Resolution Proposals (IRPs) that will introduce clarifications or make corrections to the Technical Specifications.

- SECMP0060 'Amend Requirements to remove 'Pending' devices from SMI' proposes to extend the time where a Device can be listed as 'pending' on the Smart Metering Inventory (SMI) before it needs to be removed from 12 months to 36 months.

- MP071 'Second-Comer Charging' will remove the need for the DCC to assess the second-comer charges for High Volume and Low Volume Gateway Connections.

- MP073 'Alteration of SMKI Repository information and documentation' will make it clear within the SEC that any alteration changes, or deletion of information or documentation in the Smart Metering Key Infrastructure (SMKI) Repository must have the express consent of the SMKI Policy Management Authority (PMA).

- MP074 'Clarity on Obtaining SMKI Device Certificates' will amend the SEC to align with the Security Sub-Committee (SSC) and the SMKI PMA's Agreed Interpretation for the process for Users obtaining Device Certificates following completion of the User Entry Process Tests (UEPT).

- MP076 'Pursuing Non-Payment in Events of Default' proposes to oblige the DCC to take all reasonable steps to gain agreement from the Panel for its approach to pursuing non-payment in an Event of Default.

No further modifications will be added.

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Interaction with SMETS1 Enrolment and Adoption

The Smart Metering Equipment Technical Specifications 1 (SMETS1) Enrolment and Adoption programme is due to implement releases in the second half of 2019. The DCC has informed the Panel that the DCC Total System changes for modifications in the November 2019 SEC Release will be developed and implemented using the test environments set up for these releases.

The DCC has also stated that they will absorb the costs for stages after Pre-Integration Testing (PIT) for any modifications included in the November 2019 Release, and so these costs will not be incurred under this release's implementation costs. The DCC has also confirmed there will be no incremental costs to the Charging Statement for 2019/20. If this position changes, this risk will be raised with the SEC Panel.

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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**
SECMP0018	✓	✓		✓	
SECMP0023	✓				✓
SECMP0025	✓	✓		✓	✓
SECMP0039				✓	✓
SECMP0055	✓	✓	✓	✓	✓
SECMP0060	✓				✓
MP071					✓
MP073					
MP074					
MP076					✓

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	• Suppliers will be able to submit Uncontrolled Gas Flow Rates to an accuracy of four decimal places (ten-thousandths of a cubic metre). • Suppliers will be able to install Devices that are in a 'pending' state on the SMI within 36 months of their addition to the inventory. • Suppliers must ensure any Devices they procure, and any firmware updates are compliant with the applicable Technical Specification versions.
Electricity Network Parties	• ENPs will be able to receive data from Service Requests 6.13 'Read Event Or Security Log' and 7.7 'Read ALCS data', and a new Alert notifying changes to ALCS or HCALCS.
Gas Network Parties	• Gas Network Parties are not expected to be directly impacted by this release.
Other SEC Parties	• RSAs will be able to submit Service Requests 8.14.3 'Communications Hub Status Update – Fault Return' and 8.14.4 'Communications Hub Status Update – No Fault Return'.

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SEC Party impacts	
Participant	**Summary of impacts**
	• Manufacturers will need to ensure the standard Electricity Distributor configuration settings are applied to Electricity Smart Meters. • Manufacturers will need to adhere to the latest version of the Technical Specifications and GBCS.

DCC impacts	
Area impacted	**Summary of impacts**
DCC Systems	• The systems will be able to receive and store Uncontrolled Gas Flow Rates to an accuracy of four decimal places (ten-thousandths of a cubic metre). • Service Requests 6.13 and 7.7 will be submitted to the relevant ENPs, and a new Alert notifying ENPs of changes to ALCS or HCALCS in their networks will be issued. • The system will need to accept Service Requests 8.14.3 and 8.14.4 submitted by an RSA and perform validation that the RSA is eligible to submit these requests on behalf of the relevant Supplier. • Devices that are in a 'pending' state on the SMI will not be removed until 36 months after their addition to the inventory. • The DCC will throttle Alerts issued by Devices when the number of a specific Alert exceeds the set thresholds.
DCC Operations	• The DCC will no longer need to calculate second comer charges for High Volume and Low Volume Gateway Connections. • The DCC will need to seek agreement from the Panel for the approach to recovering non-payment under an Event of Default.

SEC document impacts

The following documents will be updated in this release:

- Section J 'Charges'

- Section K 'Charging Methodology'

- Section L 'Smart Metering Key Infrastructure and DCC Key Infrastructure'

- Schedule 8 'GB Companion Specification'

- Schedule 9 'SME Technical Specifications'

- Schedule 10 'CH Technical Specifications'

- Schedule 11 'TS Applicability Tables'

- Appendix D 'SMKI Registration Authority Policies and Procedures'

- Appendix E 'DCC User Interface Services Schedule'

- Appendix K 'SMKI and Repository Test Scenarios Document'

- Appendix M 'SMKI Interface Design Specification'

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- Appendix N 'SMKI Code of Connection'

- Appendix AC 'Inventory, Enrolment and Decommissioning Procedures'

- 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 0018	SECMP 0023	SECMP 0025	SECMP 0039	SECMP 0055	SECMP 0060	MP 071	MP 073	MP 074	MP 076
Section J										✓
Section K							✓			
Section L								✓		
Schedule 8	✓	✓	✓		✓					
Schedule 9					✓					
Schedule 10					✓					
Schedule 11	✓	✓	✓		✓					
Appendix D									✓	
Appendix E				✓						
Appendix K									✓	
Appendix M									✓	
Appendix N									✓	
Appendix AC						✓				
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.

The changes to Appendix AD 'DCC User Interface Specification' (DUIS) for this release will generate DUIS version 3.1. DUIS version 3.0 will remain available for Users.

SEC Schedule 8 'GB Companion Specification' version 3.2, SEC Schedule 9 'SME Technical Specifications 2' version 4.2 and SEC Schedule 10 'CH Technical Specifications' version 1.3, incorporating the changes for this release, have been designated into the SEC with an applicability start date that will align with the go-live date of this release.

Other Code impacts

No other Codes are impacted as a result of this SEC Release.

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3. Implementation timeline

This section lists the 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 Completion Reports and the commencement and closure of testing windows may change nearer the time.

Release implementation timetable		
Date	**Event**	**Notes**
15 Feb 19	Panel baselines RID for system-impacting modifications	The Panel reviewed the RID for DCC System-impacting modifications (including modifications targeted but not approved) and baselined the document.
24 Apr 19	TAG comments on SEC Release TAD approach	
10 May 19	Panel baselines RID for non-system-impacting modifications	The Panel reviewed the RID for non-DCC System-impacting modifications (including modifications targeted but not approved) and re-baselined the document to include these.
21 May 19 to 04 Jun 19	DCC consultation on draft SEC Release TAD	
21 May 19	DCC submits draft SEC Release TAD	
29 May 19	TAG reviews draft SEC Release TAD	
19 Jun 19	DCC submits updated SEC Release TAD	
26 Jun 19	TAG reviews updated SEC Release TAD	
04 Jul 19	Technical Specifications designated	The versions of the Technical Specifications due to go live in the release were designated into the SEC.
12 Jul 19	TAG further reviews updated SEC Release TAD	
19 Jul 19	Panel reviews SEC Release TAD	The Panel conditionally approved the TAD, agreeing that SIT could commence but not to incorporate the TAD into the RID until the conditions had been met.
Late Jul 19	SIT commences	
18 Oct 19	SIT completes	
By 16 Oct 19	Test Participants inform DCC of their regression testing plans	By 10 Working Days before UIT begins.
30 Oct 19	UIT commences	

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Release implementation timetable		
Date	**Event**	**Notes**
01 Nov 19	DCC submits SIT Completion Report	
05 Nov 19	Operations Group reviews status against acceptance criteria	The Operations Group will review the status of the release and provides a recommendation on whether it should be implemented as planned.
By 07 Nov 19	Test Participants to provide regression testing results to DCC	By five Working Days before UIT completion.
08 Nov 19	TAG reviews SIT Completion Report	The TAG will provide a recommendation to the Panel on whether SIT has been completed successfully.
15 Nov 19	UIT window closes	
15 Nov 19	Panel approves SIT Completion Report	
15 Nov 19	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 19	Release go-live	The changes are implemented. *This date may be extended to 01 Dec 19 at the Panel's discretion.*

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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.

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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 is currently £1,073,269, with a further £22,298 being incurred in one-off operational costs.

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

Breakdown of DCC implementation costs				
Activity	SECMP0023	SECMP0025	SECMP0039	SECMP0060
Design	£414,393	£386,009	£201,650	£71,217
Build				
Pre-integration Testing				
System Integration Testing	-	-	-	-
User Integration Testing				
Implement to Live				
Operational costs – one-off	-	-	£22,698	-
Operational costs – ongoing	-	-	-	-

The DCC intends to leverage other activities planned to take place concurrently with the November 2019 SEC Release in order to maximise cost-efficiencies. Consequently, it expects that any incremental cost increases beyond those stated up to the end of PIT activities will be minimal, and that there should be no increase to the Fixed Charges set out in the DCC's Charging Statement for the 2019/20 Regulatory Year.

The SMETS1 Enrolment and Adoption work planned during this period is one example of the activities that the DCC intends to leverage, but all such activities need to be considered in the round in order to accurately identify cost-efficiencies.

Whilst there have been some changes to the SMETS1 Enrolment and Adoption timeline since the agreement made at the December 2018 Panel meeting, the DCC's position regarding the treatment of post-PIT costs remains unchanged. As such, the costs up to the end of PIT, as quoted in the DCC Impact Assessments for each Modification Proposal, remain the total amount that would be charged for each modification if implemented in this release.

If any further changes to timelines of other DCC activity, including SMETS1 Enrolment and Adoption, result in significant changes to the overall cost of this release, the Panel will be informed immediately and the decision to proceed with the release will be reviewed. However, the DCC considers this to be highly unlikely.

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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. These costs have already been accounted for in the SECAS budget.

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6. Acceptance criteria

The Panel has agreed that 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 extant 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.

The Panel will review the status of the release against these criteria ahead of go-live and will determine then if the release should or shouldn't be implemented as planned.

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Appendix 1: Version control

Document history		
Version	**Date**	**Changes**
0.1	08 Feb 19	First draft presented to the Panel to be baselined.
1.0	18 Feb 19	Document baselined by the Panel at its meeting on 15 February 2019 covering the DCC Systems impacting modifications in scope of the release.
1.1	02 May 19	Updated to reflect: • Approval of SECMP0025, SECMP0039 and SECMP0060; • SECMP0053 being removed from the scope of the release; and • SECMP0018 and SECMP0055 being added to the scope of the release.
2.0	13 May 19	Document re-baselined by the Panel at its meeting on 10 May 2019 to include all modifications currently in scope of the release. Updates made to timelines for reviewing the TAD.
3.0	02 Aug 19	Updated to reflect: • Approval of MP071, MP073 and MP074 for inclusion in this release; • Changes to the timelines for reviewing the TAD; and • Corrections to the document impact matrix.
4.0	08 Oct 19	Updated to reflect: • SECMP0062 being removed from the scope of the release; • MP076 being added to the scope of the release; and • The change of go-live date to 24 November 2019.
5.0	31 Oct 19	Updated to reflect: • Approval of MP076 for inclusion in this release; and • The change of go-live date to 29 November 2019.

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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**
ALCS	Auxiliary Load Control Switch
DCC	Data Communication Company
DUIS	DCC User Interface Specification
ENP	Electricity Network Party
GBCS	Great Britain Companion Specification
HAN	Home Area Network
HCALCS	Home Area Network Connected Auxiliary Load Control Switch
PIT	Pre-Integration Testing
PMA	Policy Management Authority
RID	Release Implementation Document
RSA	Registered Supplier Agent
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	System Integration Testing
SMETS1	Smart Metering Equipment Technical Specifications 1
SMKI	Smart Metering Key Infrastructure
SMI	Smart Metering Inventory
SSC	Security Sub-Committee
TAD	Testing Approach Document
TAG	Testing Advisory Group
UEPT	User Entry Process Tests
UIT	User Integration Testing

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Smart Energy Code Administrator and Secretariat (SECAS)

8 Fenchurch Place, London, EC3M 4AJ

020 7090 7755

sec.change@gemserv.com