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Stage 02: Draft Modification Report

What stage is this document in the process?

01 Initial Assessment
02 Refinement Process
03 Modification Report
▶ 04 Decision

SECMP0018:

Standard Electricity Distributor Configuration Settings

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Summary

This modification aims to set default values for Electricity Network Parties' (ENPs) configuration settings for all Electrical Smart Metering Equipment (ESME). This will reduce the need for ENPs to apply settings immediately after the ESME is first installed and commissioned.

Working Group View

✓

- The Working Group unanimously believes that SECMP0018 should be approved.

Impacts

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- Suppliers;
- Electricity Network Parties;
- Other SEC Parties;
- DCC Systems;
- Smart Metering Systems; and
- Party interfacing systems.

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SEC
Smart Energy Code

Content

About this Document

This document is a Draft Modification Report (DMR). It provides detailed information on the issue, solution, impacts, costs and Working Group discussions and conclusion on SECMP0018.

The Smart Energy Code (SEC) Panel will consider this report to ensure that due process has been followed and determine whether to issue the modification for Modification Report Consultation (MRC).

1. Summary

What is the issue?

Currently, ENPs are required to configure new ESMEs with appropriate settings through relevant Service Requests as soon as the meter has been installed and commissioned. The configuration of ESMEs needs to occur for every new meter installation to set thresholds for voltage events on the ESP's network. This process is expected to be a burden to the ENPs because these settings only have minor differences from one ESME to the next.

What is the Proposed Solution?

The proposed solution is to require Manufacturers to populate ESMEs with standard configuration settings. ENPs have agreed a common set of configurations that should be set at installation. These settings would be captured in the GB Companion Specification (GBCS), thereby mandating Suppliers to ensure that procured ESMEs from Manufacturers contain the default settings. SECMP0018 will add a plain English table of the Standard Electricity Distributor Configuration Settings to GBCS.

Impacts

Party

Large Supplier Parties	X	Small Supplier Parties	X
Electricity Network Parties	X	Gas Network Parties	
Other SEC Parties	X		

System

DCC Systems		Party interfacing systems	
Smart Metering Systems		Communication Hubs	
Other systems			

Implementation Costs

The total estimated implementation cost to deliver SECMP0018 is approximately **£1,200** which consists of SEC Administration effort.

Implementation Date

The Working Group recommends an implementation date of:

- **27th June 2019**, if a decision to approve is made by **26th October 2018**.

Working Group's views

The Working Group believes **unanimously** that SECMP0018 better facilitates the SEC Objectives. The Working Group therefore believes that this Modification Proposal should be **approved**.

2. What is the issue?

Background

The Smart Metering Equipment Technical Specifications (SMETS) requires that ESMEs can record a range of voltage related information and send a range of voltage related Alerts. The SMETS also outline several Configuration Data Items that ESME must use to control such voltage related recording.

Currently, ENPs update a newly installed and commissioned ESME's configuration settings as they see fit. However, a lot of the time, an ESME is set to the same standard set of configurations. ENPs have therefore requested that a set of default configurable data items be made available to manufacturers to be applied to all ESMEs pre-commissioning.

What is the issue?

GBCS specifies Use Cases which allow manufacturers to set the values of the configuration data items on ESMEs. GBCS does not specify any default values for voltage related Alerts and events that would be configured before an ESME is installed. Only when configured by an Electricity Distributor will an ESME report voltage related data on the basis of potentially varying configuration values.

The British Electrotechnical and Allied Manufacturers Association (BEAMA) noted that if meter manufacturers had knowledge of the requested configurations then they could pre-populate the relevant fields in the Smart Meter data structure in order to facilitate the manufacturing and testing process. Through the Energy Networks Association (ENA), ENPs have agreed a common set of default configuration settings. Both BEAMA and the Technical Specification Issue Resolution Subgroup (TSIRS) were comfortable with the proposed settings.

With all ESMEs containing these settings at the point of manufacture, ENPs will only need to update these fields when a change is required to the existing default data, on a case-by-case basis; therefore fewer Service Requests will need to be sent. This would result in a reduction in DCC traffic, or enable the traffic to be scheduled to reduce the impact on the DCC systems, thus increasing the efficiency of the Smart Meter installation.

3. Proposed Solution

Solution

SECMP0018 aims to mandate meter Manufacturers, through the GBCS, to populate all ESMEs with a set of default configuration settings. ENPs would then only need to use Service Request SR 6.5 (Update Device Configuration (Voltage)) if they require specific settings for a particular ESME upon installation.

ENPs will still be able to configure individual or multiple ESMEs with more stringent or lax configurations, if needed, through the relevant Service Requests.

To deliver the Functional Requirements the following changes are required to GBCS:

- The voltage related Alert and event default configurations in GBCS section 16.2 would be amended; and
- The other voltage related configuration data items' default values would be added to GBCS Annex 7 'Data Item Values to be set prior to installation of Devices'.

The changes in this Modification would not affect the structure of any of the existing Use Cases, and so do not require changes to the DCC User Interface Specification (DUIS), Message Mapping Catalogue (MMC) or Data Service Provider (DSP) systems.

The agreed standard ENP Configuration Settings as well as more detailed solution requirements can be found in Attachment C.

Draft legal text

The proposed legal text changes to SEC Schedule 8 'GB Companion Specification' version 3.1 are provided in Attachment B.

4. Impacts

The following section sets out the impacts associated with the implementation of SECMP0018.

SEC Party impacts

Large Supplier Parties	X	Small Supplier Parties	X
Electricity Network Parties	X	Gas Network Parties	
Other SEC Parties	X		

Suppliers (Large and Small):
SECMP0018 seeks to mandate that all ESMEs are prepopulated with standard default ENP settings; Suppliers would need to arrange this with their meter manufacturers, to ensure this takes place.

Electricity Network Parties:
The standard configurations would apply immediately upon the installation and commissioning of the meter is completed. Consequently, ENPs will be able to focus on meters that require a non-default configuration on a case by case basis.

(Manufacturers:
Meter manufacturers will need to test and configure smart meters with the ENPs' standard configuration settings.

There are no further impacts on Parties anticipated.

Central System impacts

DCC Systems		Party interfacing systems	
Smart Metering Systems		Communication Hubs	
Other systems			

There is no impact on any systems anticipated to implement this modification.

Testing

No testing is expected to be required.

SEC and Subsidiary Document impacts

SECMP0018 will impact SEC Schedule 8 'GB Companion Specification' Version 3.1.

Impacts on other industry codes

There are no impacts on other industry codes anticipated.

Greenhouse Gas Emission impacts

There are no impacts on Greenhouse Gas Emissions anticipated.

5. Costs

Estimated Implementation costs

The total estimated implementation cost to delivery SECMP0018 is approximately £**1,200**.

SEC costs

The estimated SEC implementation cost is detailed in the table below:

SECAS implementation costs		
Implementation Activity	**Effort (man days)**	**Cost**
Application of approved changes to the SEC. Publication of new version of the SEC on the SEC Website and issuance to SEC Parties. Review and updated any impacted SEC guidance materials.	Two	£1,200[1]

DCC costs

The DCC has indicated that SECMP0018 will not have any impact on its central systems if the modification is implemented as part of a Release, and will have no impact on it as long as it is implemented alongside other changes to the GBCS.

[1] SEC man day effort based on a blended rate of £600 per day.

6. Implementation

Recommended implementation date

The Working Group is recommending an implementation date for SECMP0018 of:

- **27th June 2019**, if a decision to approve is made by **26th October 2018**.

7. Working Group Discussions

BEIS Change Request Proposal 412

There were concerns regarding a potential conflict between BEIS's Change Request Proposal (CRP) 412: 'Events and Alerts (consolidated) PART 2' and SECMP0018. CRP412 sought to update Alert Codes in the GBCS in time for Release 2.0. The period between the implementation of CRP412 and SECMP0018 will mean that there will be some ESME that are not configured to the ENPs' requirements upon installation. BEIS confirmed in February 2018 that the ENPs' configurable data items had been partially designated in Release 2.0.

Retrospective amendments to EMSEs already installed

The Working Group agreed that SECMP0018 will not mandate any parties to update this information on meters that have already been installed. It will only apply to meters that are installed after this date. From the implementation of SECMP0018 onwards, ESMEs will be required to be pre-configured with these default settings prior to installation.

Frequency of changes to the default values

The Working Group raised a concern that the default values may change in the future, causing Manufacturers to constantly need to update the required firmware, and queried how frequently this might happen. However, ENPs have noted that this list is not expected to change in the short to medium term, and that any changes would likely be in the long term.

Impact on DCC

DCC noted that the solution agreed for SECMP0018 is unlikely to have any DCC impact as it is only proposing to add text into the GBCS. However, as SECMP0018 is impacting the GBCS document, it would result in a GBCS version uplift. It suggested that SECMP0018 should be included into a Release with other changes being made to the GBCS, which would avoid any further testing costs being incurred.

BEIS advised that SECMP0018 would need to be subject to European Commission (EC) notification as it proposes a change to functionality already notified. It noted that the likelihood of the Commission or another Member State delivering a Detailed Opinion or making comments has been assessed as Low. This EC notification period is set at three months and a day, and would begin upon receipt of the decision on SECMP0018.

The interim approach

During the assessment of this modification, SECAS discovered that SEC Appendix AC 'Inventory Enrolment and Withdrawal Procedures' clause 3.3 states that it is the Responsible Supplier's obligation to take all reasonable steps to ensure that data items are configured in accordance to the Electricity Distributor's requirements. Therefore, Suppliers should be informing Manufactures about the ENPs' standard configuration settings. To facilitate this the ENA developed an engineering recommendation document[2] that specifies the default values for the relevant configurable data items that ENPs require to be configured on each ESME. SECAS developed a guidance document to accompany this, which is available on the SEC website. This interim solution will help reduce the number of ESMEs developed without the ENPs' default configuration settings.

[2] Engineering Recommendation M30

8. Working Group's Conclusions

The Working Group's **unanimous** view is that SECMP0018 better facilitates General SEC Objectives (a) and (e) and should be **approved**.

Benefits and drawbacks of SECMP0018

The Proposer and the Working Group have identified the following benefits and drawbacks related to SECMP0018:

Benefits

The Working Group has considered that SECMP0018 will have the following benefits:

- This change will improve efficiency for ENPs. Currently, they are required to check every new meter that is installed to make sure these settings are correct. Following SECMP0018, they will only need to configure ESMEs that need a configuration different from the default settings.
- The number of alerts that ENPs and Suppliers will receive due to incorrect information on the ESME is expected to be reduced, reducing their workload in responding to these. This will also mitigate the risk of errors or issues from arising that could negatively impact the consumer.
- The modification will reduce Service Request traffic in the DCC's systems, as the ENPs will only need to update the settings when a different setting is required to the default data. This will result in fewer Service Requests needing to be sent.
- Additionally, the solution being proposed delivers no alterations to the structure of any of the existing Use Cases, and so does not require changes to DUIS, MMC or DSP systems. This is beneficial due to only requiring legal text changes to the GBCS. Furthermore, placing the values within the GBCS document will ensure that these values are taken as part of the baseline for future modifications and will not be overlooked.

Drawbacks

The Working Group identified one drawback with the modification where ENPs may have to complete a back-filling exercise in order to calibrate their internal systems as a result of the selected solution for SECMP0018. However, they felt the long-term benefits outweighed the impacts of this one-off activity.

Views against the General SEC Objectives

Objective (a)[3]

The Working Group believes that SECMP0018 will better facilitate the efficient provision, installation, operation and interoperability of ESMEs as it will better enable the ENPs to define network events to provide operational and planning related information. This is due to parameters, particularly the voltage thresholds and measurement periods, being pre-configured to the default settings sought by ENPs. It will also reduce the traffic in DCC systems and allow the traffic to be scheduled to reduce the overall impact on the DCC systems.

Objective (e)[4]

The Working Group believes that SECMP0018 will better facilitate innovation in the design and operation of Energy Networks due to the provision of information to the ENPs on the performance of distribution networks. This information could be utilised to help develop improvements economically, in efficiency and in co-ordination for Network Providers by allowing ENPs to better explore innovative design and operational approaches.

For the avoidance of doubt, the Working Group believes that SECMP0018 is neutral against all other SEC Objectives.

Implementation approach

The Panel determined that SECMP0018 to be progressed as a Path 2 'Authority-Determination' modification (SEC Section D2.6(b)) as SECMP0018 was considered to have a material impact on ESMEs. Following the Change Board vote, the Authority will determine whether SECMP0018 should be implemented. BEIS has advised that SECMP0018 would need to be subject to European Commission (EC) notification as it proposes a change to functionality already notified, but noted that the likelihood of the Commission or another Member State delivering a Detailed Opinion or making comments to be Low. This EC notification period would be three months and a day, beginning once the Authority Determination had been received.

[3] Facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises within Great Britain.

[4] Facilitate such innovation in the design and operation of Energy Networks (as defined in the DCC Licence) as will best contribute to the delivery of a secure and sustainable Supply of Energy.

Views of the Sub-Committees

The Security Sub-Committee (SSC), The Technical Architecture and Business Architecture Sub-Committee (TABASC), the Smart Metering Key Infrastructure Policy Management Authority (SMKI PMA) and the Alternative Home Area Network (Alt HAN) forum have been kept informed throughout the refinement of SECMP0018 and noted no concerns.

Appendix 1: Glossary

The table below provides definitions of the terms used in this document.

Acronym	Term
BEAMA	British Electrotechnical and Allied Manufacturers Association
BEIS	Department for Business Energy and Industrial Strategy
DCC	Data Communications Company
DUIS	DCC User Interface Specification
DSP	Data Service Provider
EC	European Commission
ENA	Energy Networks Association
ENP	Energy Network Parties (SEC term)
ESME	Electricity Smart Metering Equipment
GBCS	Great Britain Companion Specification
IRP	Issue Resolution Proposal
MMC	Message Mapping Catalogue
SMETS	Smart Metering Equipment Technical Specifications
TSIRS	Technical Specification Issue Resolution Subgroup
SEC	Smart Energy Code
SR	Service Request