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What stage is this document in the process?

Stage 01: Initial Modification Report

01	Initial Modification Report
02	Refinement Process
03	Report Phase
04	Final Modification Report

SECMP0025:

Electricity Network Party Access to Load Switching Information

This proposal seeks to enable Electricity Network Parties to have access to information from the Smart Metering System relating to load switching carried out by Smart Meters or Smart Meter connected Devices. It also proposes that the Smart Metering System informs Electricity Network Parties when changes are made to existing load switching regimes.

Proposer

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P2

The recommendation is that this modification should:

- follow Path 2: Authority Determined
- be progressed through the Refinement Process

Ref

Any questions?

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Potential Impact on:

- Electricity Distributors (Electricity Network Parties);
- The Data and Communications Company (DCC)

SECP_39_0912_15

SECMP0025 - Initial Modification Report v1.0

2nd December 2016

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About this document

This document is an Initial Modification Report (IMR). It enables the SEC Panel to carry out its initial consideration on how this Modification Proposal should be progressed through the Modification Process.

The Panel considered this report at its meeting on 9th December 2016.

This Initial Modification Report has one attachment:

- **Attachment A: SECMP0025 - Modification Proposal Form**

1. Summary

This section provides an overview of SECMP0025. For further details on the Modification Proposal, please refer to subsequent sections. Defined terms and acronyms used in this IMR are listed in the Glossary (Appendix 1) of this document.

1.1 Why Change?

The advent of Smart Meters, and associated Times Of Use (TOU) tariffs, coupled with ongoing pressure on Electricity Network Parties (ENPs) from new technologies such as distributed generation or heat pumps, requires ENPs to maximise the efficiency of each respective networks. Electricity Smart Metering Equipment (ESME) provide information to Suppliers but not all of this information is available to ENPs. For instance, Auxiliary Load Control Switch (ALCS) and HAN-Connected Auxiliary Load Control Switches (HCALCS) information. This information would enable ENPs to become more responsive as electricity networks become more complex. ENPs would therefore benefit from access to the information contained within ESME.

1.2 Solution

The Proposer (SSE) suggests three changes to the SEC:

- ENPs would gain access to SR6.13 “Read Event Or Security Log” (more specifically ALCS/HCALCS event logs);
- ENPs would gain access to SR7.7 “Read Auxiliary Load Switch Data”; and
- ENPs would receive new Alert(s) (either DCC generated or device generated).

1.3 Potential Impacts

The DCC would need to update their systems to change the settings of SR6.13 and SR7.7. The Great Britain Companion Specification (GBCS) and the DCC User Interface Specification (DUIS) would need to be amended.

1.4 Proposed Progression

The Proposer and SECAS suggest that this modification be progressed as Path 2 – Authority Determined. It meets criteria D2.6(c). D2.6(c) notes that modifications that are likely to have a material effect on access to data, which SECMP00025 does, are given the status of a Path 2 modification. Further, this modification would amend GBGS which may require European Commission (EC) notification. The Department for Business, Energy and Industrial Strategy (BEIS) has noted that any modification requiring EC notification would need Authority-determination.

The modification will impact DCC Systems and potentially User Systems (as per the requirements in SEC Section D3.9(c)). Accordingly, this modification will need to undergo Refinement by a Working Group to develop and assess the impacts of the changes to the SEC, the DCC Systems, and User Systems.

2. Why Change?

2.1 Background

Electricity Network Parties ENPs (known as Distribution Network Operators (DNOs) under other electricity-focused industry codes) currently understand how customer load switching impacts their distribution networks. Over time they have developed in-depth knowledge of where and when load is switched and the magnitude of the load being switched. This is particularly critical in designated Load Managed Areas¹ and in areas dominated by off peak / Economy 7 load. This understanding has enabled ENPs to develop their distribution systems in an economic way, investing in network reinforcement or using alternative solutions to manage load on their networks.

2.2 What is the issue?

New technology changes including: new types of heating systems; charging of electric vehicles; and major increases in customer connected micro generation, have resulted in ENPs facing new load management challenges on their networks. A further level of uncertainty is brought about by ENPs not having oversight of how individual suppliers will develop their customer offerings, e.g. new TOU tariffs.

As Smart Metering Systems are installed at locations where load is controlled directly through the metering system itself, suppliers will be able to change load switching regimes without reference to ENPs. Whilst this may be appropriate in most instances, there are some locations where additional controls are required. Recent changes to schedule eight (Demand Control) of the Distribution Connection and Use of System Agreement (DCUSA) have updated the rules associated with demand control and the avoidance of coincidence of load.

For ENPs to continue to have visibility of customer load switching and to enable prudent and informed management and development of their networks, they need to be able to obtain information relating to load switching regimes that are managed via Smart Metering Systems.

Under current arrangements, ENPs are not advised when changes to smart meter-controlled load switching regimes are made by suppliers. Further, current SEC provisions do not permit ENPs access to

- SR6.13 “Read Event Or Security Log” (more specifically, ALCS / HCALCS event logs); and
- SR7.7 “Read Auxiliary Load Switch Data”.

Having information relating to the operation of ALCS / HCALCS and their associated switching regimes will enable ENPs to both maintain the benefits of established network management arrangements and develop new innovative solutions to assist with the planning, operation and management of their distribution networks. For example, ENPs are unable to identify opportunities where demand-side response could be an economic alternative to traditional reinforcement.

¹ [DCUSA SCHEDULE 8 – DEMAND CONTROL](#)

3. Solution

3.1 What is the solution?

The Proposer, supported by the other ENPs, suggest the following:

1. That the User role of Electricity Distributor is granted access to SR 6.13 “Read Event Or Security Log” in order to read ALCS / HCALCS event logs, and so the existing GBCS Use Case, ECS35f “Read ALCS Event Log” is replaced with an equivalent Use Case that adds such Electricity Distributor access.
2. That the User role of Electricity Distributor is granted access to SR 7.7 “Read Auxiliary Load Switch Data” in order to read ALCS Data. From a Device perspective, this would be treated as a ‘Supplementary Party’ read and so would not require changes to the ECS61a “Read HC ALCS and ALCS Data from ESME” Use Case.
3. Creation of a new Alert (either DCC-generated or ESME-generated) to be sent to the ENP following an update to the ALCS / HCALCS calendar on the ESME. This new Alert would either come from the ESME triggered by such a change, or it would be triggered within the DCC, based on the DCC receiving a successful Response from the ESME to Use Case ECS46c “Set HC ALCS and ALCS configuration in ESME (excluding labels)”.

If the Alert were ESME-generated, this would require a corresponding SMETS change.

SECMP0025 would also require the following changes to GBCS:

1. Changes to the Chapter 20 Mapping Table, i.e. to the SMETS required objects to allow Electricity Distributor access to the ECS35f related objects;
2. Replacement of GBCS Use Case ECS35f “Read ALCS Event Log” with an equivalent one to additionally allow Electricity Distributor access; and
3. Additions to Table 16.2 to reflect the additional Device Alert (subject to a new Device Alert be used).

The following changes will be required to DUIS.

1. SR 6.13 will need to be amended to allow Electricity Distributor access, and a corresponding change to use the replacement ECS35f Use Case. Note this would entail removal of error code E061304, which applies in this SR if ‘LogToRead’ = ‘ALCS Event’.
2. SR 7.7 will need to be amended to allow it to be accessed by the User Role of Electricity Network.
3. If a DCC Alert is to be used, that Alert will need to be added to DUIS.

Changes may also be required to the Mixed Messaging Catalogue (MMC) to reflect the replacement Use Case and, if used, the Device Alert.

3.2 Requested Implementation

The Proposer requested that this modification be implemented as soon as possible. As SECMP0025 will impact the DCC’s systems, subject to the necessary lead time to implement the modification, if approved, it is expected that the earliest implementation date would be the June 2018 release. The Working Group will consider this implementation date when recommending an implementation approach as part of the development of the Modification Proposal during the Refinement Process.

3.3 Views against SEC Objectives

The table below highlights the Proposer's views on how this Modification Proposal would better facilitate the achievement of the applicable SEC objectives.

Proposers views against the SEC Objectives	
General SEC Objective	Proposer views
e) the fifth General SEC Objective is to 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;	The modification facilitates innovation in the design and operation of electricity networks. Having access to smart meter data associated with the operation ALCS / HCALCS will enable Electricity Distributors to develop innovative solutions to assist with the planning, operation and maintenance of their networks. This in turn will help them maintain and develop economical, efficient and co-ordinated systems of electricity distribution as required by their distribution licences.

4. Potential Impacts

The following section sets out the initial assessment of the likely impacts arising from SECMP0025. Additional impacts may be identified by the Working Group during the Refinement Process.

Potential Impacts of SECMP0025		
Impact on Consumers		
There are no identified direct impacts on Consumers.		
Smart Energy Code Parties		
Suppliers	Electricity Suppliers	No impacts have been identified at this stage.
	Gas Suppliers	No impacts have been identified at this stage.
	Export Suppliers	No impacts have been identified at this stage.
Networks	Electricity Distributors	• Would gain access to SR 6.13 (more specifically, ALCS / HCALCS event logs) • Would gain access to SR 7.7 “Read ALCS data” • Would receive new Alert (either DCC-generated or device-generated)
	Gas Transporters	No impacts have been identified at this stage.
Other Users	Registered Supplier Agents	No impacts have been identified at this stage.
	Other Users	No impacts have been identified at this stage.
Systems		
DCC Systems	• If the required Alert originates from DCC, DCC will be impacted. • DCC will also need to amend DUIS and GBCS to grant ENPs access to SR 6.13 and SR 7.7.	
User Systems	ENPs will need to upgrade their User Systems to the latest version of DUIS to take advantage of this modification.	
Smart Metering Systems	No impacts have been identified at this stage.	
Other	No impacts have been identified at this stage.	
SEC and Subsidiary Documents		
SMETS	If a new ESME-generated Alert is required, this would require changes to SMETS.	
GBCS	Use Case ECS35f “Read ALCS Event Log” will need updating.	
DUIS	A new Alert would be added to DUIS.	
MMC	Changes may also be required to reflect the replacement Use Case and, if used, the Alert.	
Other Industry Codes and Documents		
No impact.		
Greenhouse gas emissions		

5. Proposed Progression

5.1 Modification Path and the need for refinement

The Proposer and SECAS suggest that this modification be progressed as Path 2 – Authority Determined. It meets criteria D2.6(c). D2.6(c) notes that modifications that are likely to have a material effect on access to data, which SECMP00025 does, are given the status of a Path 2 modification. Further, this modification would amend GBCS which may require European Commission (EC) notification. The Department for Business, Energy and Industrial Strategy (BEIS) has noted that any modification requiring EC notification would need Authority-determination.

The modification will impact DCC Systems and potentially User Systems (as per the requirements in SEC Section D3.9(c)). Accordingly, this modification will need to undergo refinement by a Working Group to develop and assess the impacts of the changes to the SEC, the DCC Systems, and User Systems.

5.2 Indicative Progression Timetable

The following is a high level indicative progression timetable. The detail in this plan is subject to change, however, changes to the overall timetable are subject to a Panel review.

Modification Timetable	
Stage	Date
Modification Proposal Raised	16 th November
Panel initial consideration of the Modification Proposal	9 th December 2016
Refinement Process	December 2016 – July 2017
Modification Report to Panel	August 2017
Change Board vote	October 2017
Authority Decision	November 2017
Implementation	November 2018 (earliest potential implementation date)

5.2 Working Group

Due to the proposed changes to DCC and User Systems this Modification Proposal must go through the Refinement Process pursuant to SEC Section D3.9(c). This would allow the modification to be comprehensively developed by a Working Group before going to the Modification Report Consultation.

5.3 Working Group Terms of Reference

The Terms of Reference for the Working Group is provided in Appendix C to SECP_39_0912_12 – “Modification and Release Management Thought Piece Update”. Subject to the Panel’s approvals of the revisions to the Working Group Terms of Reference they will become an attachment to this IMR.

6. SEC Panel Decisions

The SEC Panel:

- **AGREED** for SECMP0025 to progress to the Refinement Process;
- **AGREED** the progression path (Path 2 – Authority Determined), refinement by a Working Group, and the progression timetable as outlined in this IMR; and
- **AGREED** the Working Group Terms of Reference provided as Appendix C to SECP_39_0912_12 – “Modification and Release Management Thought Piece Update”.

7. Further Information

For further information, please see the [Modification Register](#) page of the SEC website.

Or contact SECAS at secas@gemserv.com.

Appendix 1 – Glossary and References

Glossary		
Acronym	Term	Plain English Summary
DCC	Data Communications Company	
	DCC Alert	Alert generated in the DCC Total System which is to be sent to a relevant User(s) depending on the alert
DUIS	DCC User Interface Specification	Sets out the technical details of the DCC User Interface which is the means by which Users interact with Devices
EC	European Commission	
TOU	Time Of Use Tariff	'Time Of Use' tariffs have different unit rates at different times.