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Stage 03: Final Modification Report

SECMP0019:

ALCS/HCALCS Description Labels

Summary

This Modification seeks to introduce SEC naming conventions to be used when defining Auxiliary Load Control Switches (ALCS) or Home Area Network (HAN) Connected Auxiliary Load Control Switches (HCALCS).

Working Group Conclusions



- The Working Group **unanimously** believes that SECMP0019 should be **approved**.

Impacts



- Large and Small Suppliers are impacted.
- There are no impacts on DCC Central Systems and/or Party interfacing systems.

What stage is this document in the process?

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

SECAS Contact:

Name:

Harry Jones

Number:

020 7081 3345

Email:

SEC.Change@gemserv.com

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About this Document

This document is the Final Modification Report (FMR) for SECMP0019. This document provides detailed information on the issue, solution(s), impacts, costs, industry consultation as well as Working Group and Panel discussions and conclusions on the modification.

This document has five attachments:

- Attachment A contains the approved legal text to support this modification;
- Attachments B and C contains the schematic diagrams outlining the processes of updating ALCS/HCALCS labels;
- Attachment D contains the full Working Group Consultation (WGC) responses; and
- Attachment E contains the full Modification Report Consultation (MRC) responses.

The Change Board will consider this modification at its meeting on 25th July 2018, where it will determine whether SECMP0019 should be approved.

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1. Summary

What is the issue?

Currently Suppliers can determine their own naming convention for ALCS or HCALCS Labels. In a Change of Supplier (CoS) event, the non-standardised nomenclature may result in incoming Suppliers applying incorrect settings for each switch.

What is the Proposed Solution?

SECMP0019 will introduce a standardised naming convention for all possible ALCS and HCALCS labels. The labels list will be published on the SEC Website and will include the process for maintaining the labels.

Impacts – Proposed Solution

Party

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

System

There are no impacts on DCC Systems and/or Party interfacing systems.

Implementation Costs

The total estimated implementation cost to deliver SECMP0019 is approximately £1,200 in SEC Administration effort.

Implementation Date

The Panel has agreed an implementation date of:

- 1st November 2018, if a decision to approve is made by 18th October 2018.
- 28th February 2019, if a decision to approved is made after 18th October 2018 but before 14th February 2019.

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Working Group's views

The Working Group believes **unanimously** that SECMP0019 better facilitate the SEC Objectives. The Working Group therefore believes that this Modification Proposal should be **approved**.

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2. What is the issue?

Background

Under the current arrangements most electrical load switches operate through timers and separate ring circuits. These are mostly associated with Economy 7¹ or 10² tariffs, where timers switch off appliances at set periods when the cost of electricity is reduced. The Smart Metering Implementation Programme (SMIP) will continue to offer this functionality thanks to Electrical Smart Metering Equipment (ESME) being able to control load switching for different electrical appliances through integrated ALCS and connected HCALCS.

As variable tariffs become more common, so too will the use of ALCS, allowing Energy Consumers to optimise their electricity consumption by setting appliances to draw electricity at beneficial periods of the day. For example, an ESME could control a water storage heater to draw electricity only in periods of lower tariffs.

What is the issue?

Currently, Import Suppliers (as DCC Users) can set naming conventions for ALCS and HCALCS as they see fit (for example a “water storage heater” or a “boiler” could refer to the same functionality). In the event of a Change of Supplier (CoS), the gaining Supplier will use the Service Request (SR) 7.7 (ReadAuxiliaryLoadSwitchData) to understand the current ALCS & HCALCS setup for an ESME. As the outgoing Supplier may have a different naming convention for different ALCS, the gaining Supplier may apply the wrong settings to an ALCS connected device through SR6.14 (UpdateDeviceConfiguration(AuxiliaryLoadControlDescription)).

Incorrectly configured ALCS connected devices may disconnect and inconvenience Energy Consumers and Suppliers, as well as possibly causing harm to the connected devices. For example, if an ALCS disconnects a charging electric vehicle at the time of a tariff switch, it may cause damage to the vehicle’s battery. Another example would be that a water storage heater could be incorrectly set to disconnect at the switch from low to high tariffs. High tariffs usually apply during daytime, leaving Energy Consumers with no heating during the day.

These issues are likely to arise during a CoS or Change of Tenancy (CoT), where the new Supplier will have to assess the definitions of the used naming conventions based on the read response from SR7.7. If confusion does arise, Suppliers will require human intervention to determine the tariff implications and time settings required.

¹ Economy 7 tariffs offer cheaper electricity for 7 hours of the day.

² Economy 10 tariffs offer cheaper electricity for 10 hours of the day (but has higher standing charges).

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3. Proposed Solution

Solution

SECMP0019 seeks to introduce a standardised naming convention for ALCS and HCALCS labels. This will be achieved by publishing an agreed list of labels on the SEC Website, alongside a process for maintaining and updating this list. However, Suppliers will not be mandated to apply these labels to their ALCS and HCALCS.

Suppliers will be able to request that labels be added to or removed from this list by submitting a request to SECAS. SECAS will validate this request, before asking [the Technical Architecture and Business Architecture Sub-Committee \(TABASC\)](#) to approve the change. If a change is approved, SECAS will notify the industry of the change to the list. The process diagrams in **Attachment B** show how this process will work for the addition or removal of a label from this list.

The Proposer and the Working Group have drafted an initial list of the ALCS/HCALCS labels. This list will be published on the SEC Website at the time SECMP0019 is implemented (if approved).

Label	Description
Water Heating	Any hot water storage system
Space Heating	Any electric heating system used to provide space heating (e.g. storage radiators, underfloor heating).
Electric Vehicle	This switch is utilised to control the charging point for an electric vehicle.
Not Installed	It is assumed that all meters have up to five internal switches. If the meter has less than five switches then, on initial installation, the inventory should be informed of the number of available switches. For example, if a meter has 2 switches, switches 3 to 5 should be labelled as 'Not Installed'.

Legal text

The approved legal text changes to support the implementation of SECMP0019 can be found in Attachment A.

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4. Impacts

The following section sets out the impacts associated with the implementation of SECMP0019.

SEC Party impacts

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

Suppliers will be impacted by SECMP0019 as it will introduce the ability for them to use the standardised naming convention for ALCS and HCALCS labels.

Central System impacts

There are no impacts on the DCC Central Systems and/or Party interfacing systems.

Testing

No testing is required as part of this modification.

SEC and Subsidiary Document impacts

SECMP0019 proposes changes to:

- SEC Section A - Definitions and Interpretation; and
- SEC Section F – Smart Metering System Requirements.

Impacts on other industry codes

No other code impacts are anticipated.

Greenhouse Gas Emission impacts

No impact on Greenhouse Gases are anticipated.

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5. Costs

Estimated Implementation costs

The total estimated implementation cost to delivery SECMP0019 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 ³

³ SEC man day effort based on a blended rate of £600 per day.



6. Implementation

Recommended implementation date

The Panel has agreed an implementation date for SECMP0019 of:

- 1st November 2018, if a decision to approve is made by 18th October 2018; or
- 28th February 2019, if a decision to approved is made after 18th October 2018 but before 14th February 2019.

The November 2018 SEC Release is the earliest SEC Release that this modification can be targeted for. SECAS will require a 10 Working Day lead time on the decision in order to prepare and implement the changes to the SEC and the SEC Website for this modification. No other participants are expected to be impacted by the implementation of this modification.

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7. Working Group Discussions

Terms of Reference Terms of Reference

The Working Group has considered and answered the questions put forward in the SECMP0019 Terms of Reference. A summary of its discussions and conclusions are detailed below.

Do we have an exhaustive list of names and definitions for all possible ALCS?

As part of the development of the modification the Working Group agreed an initial list of ALCS and HCALCS labels to be included in this modification. SECAS sent the initial ALCS and HCALCS labels list to all Suppliers requesting feedback. The Working Group also added elements to the list. Furthermore, the Working Group Consultation asked for feedback on this list.

Following all feedback received, the Working Group refined this list to include:

- water heating;
- space heating;
- electric vehicles;
- not in use; and
- not installed.

The Working Group believes the list developed covers all general scenarios, but notes that further labels can be added in the future.

Do all Suppliers and Other Users agree to the set of names and definitions for all ALCS?

The Working Group agreed the list and sought wider Industry feedback (as noted above). The only respondent to the consultation agreed that the proposed list is sufficient.

Where should this list reside and how to we keep the management of it as flexible and future proof as possible?

The original solution proposed under SECMP0019 would have seen this list of standard ALCS/HCALCS contained within the DCC User Interface Specification (DUIS), as this would be where any service request specifying the ALCS or HCALCS label would be validated against. However, the Working Group determined that a non-DCC System

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impacting solution would be more pragmatic and therefore determined that the standard list of labels should be published on the SEC Website where it would be easier for Suppliers to access. This would also avoid the need to raise a modification each time a change is required to the list of ALCS/HSCALS labels.

The Working Group also agree that a governance framework should be put in place for managing this list. The Working Group believe that the TABASC is the most appropriate body to managed changes to this list. Further information on this governance process can be found in **Attachment B**. Furthermore, it was also agreed that SECAS will be required to inform Industry of any changes to the list and advise any new SEC Parties as part of the accession of the list's existence.

Will the names of the ALCS/HCALCS remain within Industry or will they also be presented to the consumer?

SECAS highlighted that while the labels can be up to 127 characters in length, only 22 characters can be displayed over the HAN. The Working Group and the Proposer noted that there is a benefit to displaying the ALCS/HCALCS labels over the HAN (and therefore on customer facing devices) and thus agreed to have the number of characters limited to up to 22 characters. The Working Group agreed that displaying the labels over the HAN would not be a mandatory part of the solution, and it would be left to individual Suppliers to choose whether to do this with their customers. However, imposing the character limit would facilitate any Supplier wishing to do so.

Could Suppliers give some use cases of how these ALCS will be expected to operate? As these devices do not exist at present, could Suppliers familiarise the Working Group with these devices?

Suppliers have noted that the development of these switches is still in its early days, and no use cases could be provided to the Working Group. However, members considered that this process will be similar to Economy 7 or 10 tariffs.

What will be the process for correcting (backfilling) already populated fields?

Should this modification be approved and implemented, it is expected that very low numbers of switches will be installed. As part of the original solution development, when the solution was proposed to be mandatory via a DCC System-impacting change, the Working Group and the Proposer suggested that there should be an adaptation period to follow implementation, where Suppliers will be required to update their naming conventions to align with the ALCS/HCALCS labels list. However, the solution has since been made optional, and so there is no requirement for Suppliers to backfill any previously populated fields within a specified period of time.

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Other discussions

ZigBee as a source of nomenclature

A WG Member suggested that the list of these names should be aligned with ZigBee. I was noted that there were existing works on standards ongoing which may change the ZigBee list. As such the Working Group agreed to align the ALCS/HCALCS labels list with the ZigBee list when possible.

Impacts of original DCC System based solution

SECMP0019 originally proposed changes to DUIS to introduce validation of the “SwitchDescription” in SRV 6.14.1

(UpdateDeviceConfiguration(AuxiliaryLoadControlDescription)). This would create a mandatory solution that all Suppliers would need to follow, as they would need to use a label that is on the agreed list or the SRV would fail validation when submitted.

The DCC estimated that this change to its systems would cost circa £432,000 - £622,000. Following this cost, the Proposer chose to pursue a non-DCC Central Systems impacting solution.

TABASC consideration

SECAS presented the ALCS/HCALCS Labels List at the TABASC at its meeting in October 2017. The TABASC reviewed the list of labels and suggested that the “Boost” label be removed from the list because Boost can be used for either water or space heating, which are both already separate labels on the list. It was considered that the “Ground Source Heat Pump” should be added to the list. The Working Group agreed to remove ‘Boost’ from the list, but did not add ‘Ground Source Heat Pump’.

The TABASC reviewed and further refined the process of updating ALCS/HCALCS labels, seeking for SECAS to make thorough checks to ensure that there are no repetitions in the process. It was clarified that the TABASC’s role in the processes is to approve or reject changes to the list, and not to do the final checks; these will be performed by SECAS before any proposal is presented to the TABASC.

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8. Working Group Conclusions

The Working Group's **unanimous** view is that SECMP0019 better facilitates General SEC Objective(s) (a), (c) and (d) and should be **approved**.

Benefits and drawbacks of SECMP0019

The Proposer and the Working Group have identified the following benefits and drawbacks related to SECMP0019:

Benefits

The Proposer and the Working Group agreed that standardising the nomenclature for ALCS/HCALCS will benefit the data quality of the UK's Energy Industry. By having a standardised list of titles and labels, this will decrease the difficulty of analysing data regarding ALCS and HCALCS through having a recognisable and coherent list of which to refer to the varying switches.

The Working Group agreed that, while this solution will not be mandatory, it will provide a tool to assist Suppliers in naming ALCS and HCALCS. Members believed this would help a new or gaining Supplier to better understand what is allocated to each switch when they receive a customer through a CoS. This will help to mitigate the risk that the new Supplier inadvertently switches off an ALCS because they did not understand what was attached to it. This is especially critical when the connected appliance may be critical for the customer (for example a water heater).

Drawbacks

No drawbacks were identified by the Working Group.

Views against the General SEC Objectives

Objective a)⁴

The **majority** of the Working Group believe that SECMP0019 will increase standardisation and result in efficiency gains by avoiding unnecessary costs relating to energy Suppliers' system development and customer service issues, because of different ALCS naming conventions and a lack of standardisation.

⁴ Facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises within Great Britain



Objective c)⁵

The **majority** of the Working Group believe that SECMP0019 will improve the Energy Consumer experience by having a clear and consistent way of identifying the ALCS across Suppliers, mitigating confusion.

Objective d)⁶

The **majority** of the Working Group believe that SECMP0019 will support the CoS process by alleviating the risk of certain switches being, inadvertently, left 'off'. This is especially critical when the connected appliance may be critical (for example a "water heater"). Anything that assists in making the CoS process easier and less complex must be investigated and costed accordingly, to the overall programme.

For the avoidance of doubt, the Working Group believe that SECMP0019 is neutral against all other General SEC Objectives.

⁵ Facilitate Energy Consumers' management of their use of electricity and gas through the provision to them of the appropriate information by means of Smart Metering Systems

⁶ Facilitate effective competition between persons engaged in, or in Commercial Activities connected with, the Supply of Energy



9. Panel discussions & conclusions

Panel discussions

One member of the Panel raised a request to add a new label that could distinguish and specify swimming pools and/or a jacuzzi in the table. This will be picked up as part of the implementation of the modification.

Panel conclusions

The Panel **unanimously** agreed that due process has been followed and that SECMP0019 should progress to Modification Report Consultation.

The Panel also agreed that SECMP0019 is a Path 3: Self Governance Modification Proposal and that the draft legal text changes to the SEC deliver the intention of the modification.

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Appendix 1: Glossary

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

Acronym	Definition
ALCS	Auxiliary Load Control Switches
CoS	Change of Supplier
CoT	Change of Tenancy
DCC	Data and Communications Company
DUIS	DCC User Interface Specification
ESME	Electrical Smart Metering Equipment
FMR	Final Modification Report
HAN	Home Area Network
HCALCS	HAN Controlled Auxiliary Load Controlled Switches
MRC	Modification Report Consultation
SEC	Smart Energy Code
SMIP	Smart Metering Implementation Programme
SR	Service Request
TABASC	Technical Architecture and Business Architecture Sub-Committee
ToR	Terms of Reference
WGC	Working Group Consultation

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