SEC
Smart Energy Code

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Smart Energy Code

MP243

'CHTS v1.1 and GBCS v2.1 Installation End Date and Maintenance End Date'

Modification Report

Version 0.3

9 August 2023

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About this document

This document is a draft Modification Report. It currently sets out the background, issue, solution, costs and progression timetable for this modification, along with any relevant discussions, views and conclusions. This document will be updated as this modification progresses.

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This document also has one annex:

- **Annex A** contains the redlined changes to the Smart Energy Code (SEC) required to deliver the Proposed Solution.

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1. Summary

This proposal has been raised by David Rollason on behalf of the Data Communications Company (DCC).

The DCC is aware of approximately 2.2 million uninstalled Communications Hubs which are compliant with the Communications Hub Technical Specifications (CHTS) v1.1 and the Great Britain Companion Specification (GBCS) v2.1. The Technical Specification Applicability Tables (TSAT) contain an Installation End Date of 30 April 2024 and a Maintenance End Date of 31 May 2024. These provide the final date that these Communications Hubs can be installed and will be maintained. Any stock remaining after this time will not be compliant and should be scrapped or returned, incurring a financial and environmental cost.

The Proposed Solution is to extend the CHTS v1.1 and GBCS v2.1 Installation End Date by 24 months.

This modification impacts Suppliers, Meter Installers, Other SEC Parties and the DCC. Costs are limited to the Smart Energy Code Administrator and Secretariat (SECAS) time and effort. SECAS is targeting this modification for the February 2024 SEC Release.

This is a Self-Governance modification.

2. Issue

What are the current arrangements?

SEC Schedule 11 'Technical Specification Applicability Tables' contains a table titled 'CHTS and Relevant Versions of GBCS'. The table includes different CHTS Versions, the corresponding GBCS Version as well as the relevant Installation and Maintenance Validity Periods. For CHTS v1.1 and GBCS v2.1 the Installation End Date is 30 April 2023, with the Maintenance End Date on 31 May 2024.

The DCC is aware of approximately 2.2 million uninstalled Communications Hubs which are compliant with the CHTS v1.1 and GBCS v2.1 specifications. Should installation and production rates stay at the same level until the end of the existing Installation and Maintenance End Dates, the DCC estimates that there could still be 2.2 million Communications Hubs that have been produced but remain uninstalled by the end of the existing End Dates. This is because supply and installation rates are roughly equivalent.

What is the issue?

An issue in Great Britain Companion Specification (GBCS) v3.2 specification has led to Communications Hubs continuing to be manufactured to be compliant with GBCS v2.1 for an additional two years more than anticipated. The volume of Communications Hub stock has grown to an extent that stock volumes will not be used before the end of the existing TSAT dates. Any stock remaining after this time will not be compliant and should be scrapped or returned, incurring a financial and environmental cost.

In the coming years 2G and 3G Communications Hubs are being phased out, to be replaced by 4G Communications Hubs. It is anticipated that the rollout of 4G Communications Hubs will be slow to

minimise risk. If issues are found with 4G Communications Hubs then Parties may wish to default to installing 2G/3G Hubs. As such, extending the Installation and Maintenance End Dates would allow Parties to fall back on the remaining stock, should they experience issues with the 4G Hubs.

What is the impact this is having?

If the dates pass, any remaining uninstalled stock will be non-compliant with the SEC should be scrapped or returned. The DCC notes that the existing returns process will not be able to support the volume of Communications Hubs which are compliant with these specifications.

If Parties continued to install these Communications Hubs following the end of the Installation Validity Period (IVP), the installation would be non-SEC compliant. The DCC would not be under an obligation to support the maintenance and upgrade of the firmware on the Device.

Impact on consumers

Scrapping this remaining stock could result in fewer Energy Consumers gaining the access to smart meters in the immediate future.

3. Solution

Proposed Solution

The Proposed Solution is to extend the Installation End Date for CHTS v1.1 and GBCS v2.1 by 24 months. This would change the date from 30 April 2024 to 30 April 2026.

The changes to the SEC to meet this solution are available in Annex A.

4. Impacts

This section summarises the impacts that would arise from the implementation of this modification.

SEC Parties

SEC Party Categories impacted			
✓	Large Suppliers	✓	Small Suppliers
	Electricity Network Operators		Gas Network Operators
✓	Other SEC Parties	✓	DCC

Breakdown of Other SEC Party types impacted			
	Shared Resource Providers	✓	Meter Installers

Breakdown of Other SEC Party types impacted			
	Device Manufacturers		Flexibility Providers

All affected Parties would benefit from this change as they would be able to continue to install Communication Hubs which should otherwise be scrapped or returned to the DCC.

DCC System

There will be no impacts to DCC Systems.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Schedule 11 'Technical Specification Applicability Tables' (TSAT)

Technical specification versions

There are no changes directly to the Technical Specifications, only to the Installation and Maintenance End Dates in the TSAT.

Devices

Devices impacted			
	Electricity Smart Metering Equipment		Gas Smart Metering Equipment
✓	Communications Hubs		Gas Proxy Functions
	In-Home Displays		Prepayment Meter Interface Devices
	Standalone Auxiliary Proportional Controllers		Home Area Network Connected Auxiliary Load Control Switches
	Consumer Access Devices		Alternative Home Area Network Devices

This change will allow Communications Hubs compliant with CHTS v1.1 and GBCS v2.1 to continue to be installed by the Supplier and upgraded by the DCC. There will be no impact to Device behaviour.

Consumers

This change will result in more energy consumers gaining the access to smart meters in the immediate future.

Other industry Codes

There will be no impact on other industry Codes.

Greenhouse gas emissions

There will be no impact on greenhouse gas emissions.

5. Costs

SECAS costs

The estimated SECAS implementation cost to implement this as a stand-alone modification is one day of effort, amounting to approximately £600. This cost will be reassessed when combining this modification in a scheduled SEC Release. The activities needed to be undertaken for this are:

- Updating the SEC and releasing the new version to the industry.

SEC Party costs

It is not anticipated there will be any costs to SEC Parties. Further views will be gained via the Refinement Consultation.

6. Implementation approach

Recommended implementation approach

SECAS is recommending an implementation date of:

- **29 February 2024** (February 2024 SEC Release) if a decision to approve is received on or before 15 February 2024.
- **Ad-hoc SEC Release** if a decision to approve is received after 16 February 2024.

SECAS anticipates that this modification will be approved in time for the February 2024 SEC Release. However, if this is not possible, this modification must be implemented as an ad-hoc SEC Release. This is because the Installation End Date affected by the modification is 30 April 2024. Therefore, the modification needs to reach a decision prior to this date. If this modification misses the February 2024 SEC Release it will be implemented as an ad-hoc SEC Release one week following decision.

7. Assessment of the proposal

Observations on the issue

Previous extensions to TSAT

The TSAT contains IVP (from Installation Start Date to Installation End Date) and Maintenance Validity Period (MVP – from Maintenance Start Date to Maintenance End Date). These dates are to ensure Devices compliant with older versions of technical specifications are either updated or replaced as they age. Due to several factors, including slower than expected uptake of smart metering, delayed roll out of newer Communications Hub Releases, and UK Government distancing restrictions in 2020/21, installations have not been as high as anticipated. Older versions of Communications Hubs bought by Suppliers have been stored while the stock is installed.

There have been four previous modifications to extend IVP and MVP dates:

- MP139 'MVP and IVP dates for CHTS' extended CHTS v1.0 and GBCS v1.0 & v1.1 IVP end dates from 31 January 2021 for 12 months. It also extended CHTS v1.1 / GBCS v2.1 IVP end dates from 28 February 2021 for 12 months and extended MVP end dates for CHTS v1.1 / GBCS v2.1 from 31 May 2021 for 12 months.
- MP191 'Extending CHTS v1.0 & v1.1 IVP and MVP end dates' extended the CHTS v1.0 IVP and MVP end dates from 31 January 2022 and 28 February 2022 respectively by 12 months.
- MP201 'CHTS v1.1 and GBCS v2.0 Applicability End Date' extended the CHTS v1.1 and GBCS v2.0 from 28 February 2022 by 18 months.
- MP221 CHTS v1.0 and GBCS V1.1 Installation End Date and Maintenance End Date' extended the CHTS v1.0 and GBCS v1.1 Installation End Date by three months to 30 April 2023 and the Maintenance End Date by three months to 30 May 2023.

Alteration to Proposed Solution

At the start of the Refinement Process the Proposer suggested that both the Installation End Date and Maintenance End Date should be extended. However, following feedback from the Sub-Committee Chairs, the Proposer has elected to extend only the Installation End Date from 30 April 2024 to 30 April 2026.

Sub-Committee input

SECAS has engaged with the OPSG, TABASC and SSC to input into the modification report. SECAS asked the following questions at the relevant sub-committees and the feedback has been collated in the 'Discussion points' section of this paper.

Sub-Committee input	
Sub-Committee	**Input received**
OPSG	• Do you agree that the 24-month extension to both the Installation End Date and Maintenance End Date which the Proposer has suggested is suitable? • Should only the Installation End Date be extended?

Sub-Committee input	
	• What are the operational impacts of extending the existing End Dates?
SMKI PMA	No input sought.
SSC	• Do you agree that the 24-month extension to both the Installation End Date and Maintenance End Date which the Proposer has suggested is suitable? • Should only the Installation End Date be extended? • Do you have any security concerns about extending the Installation and Maintenance End Dates?
TABASC	• Do you agree that the 24-month extension to both the Installation End Date and Maintenance End Date which the Proposer has suggested is suitable? • Should only the Installation End Date be extended? • Should the purpose of the TSAT be reviewed to ensure it is driving desired behaviour?

Solution development/Discussion points

Extension of Installation Validity Period only

TABASC Statement

SECAS presented this modification to the Technical and Business Architecture Sub-Committee (TABASC) in July 2023, with the Proposed Solution being to extend both the Installation End Date and the Maintenance End Date. Following discussions between TABASC members and the Chair, the TABASC produced this statement to feed into the Modification Report as an official position on this modification.

"This modification draws attention to the volume of CHTS v1.1/GBCS v2.1 Communications Hub awaiting installation, and the likelihood of them not being used before the end of the existing TSAT dates. Any stock remaining after this time will not be compliant and therefore could be scrapped or returned, incurring a financial and environmental cost. The proposed solution is to therefore extend the Installation Validity Period (IVP) and Maintenance Validity Period (MVP) dates by 24 months to allow time for them to be installed.

TABASC recognise that preventing Devices from being installed is not preferred and therefore there is support for the change to the TSAT to allow installation of the old Devices, however there is concern that those Devices should be upgraded as soon as possible.

The SEC sets out the Smart Metering Technical Specifications, including the CHTS and the GBCS. SEC Schedule 11 'Technical Specification Applicability Tables' specifies the dates in which Devices built to specifications can be installed (the IVP) and maintained (the MVP). One of the key objectives of the TSAT tables is to progress the Device estate towards the latest versions of firmware thereby simplifying the range of variants in operation.

The IVP is the window where Devices complying with that version of the specifications can be installed. The MVP is the window where Devices complying with that version of the specifications can be maintained.

Traditionally the IVP has been given an end date prior to the MVP end date to allow time for Devices to be upgraded after installation. TABASC has considered the implications of the SEC Modification extending the end dates by 24 months and considers it could allow unhelpful behaviour in Devices not being upgraded for the MVP period. The proposal from TABASC is to not extend the MVP end date from May 2024, and only extend the IVP by 24 Months. The implication of this is that it remains acceptable for Suppliers to install Comms Hubs that once installed would have an expired MVP, after installation DCC will, under all reasonable steps, carry out firmware upgrades to bring the Comms Hubs into compliance".

TABASC produced this statement in July 2023. SECAS then presented this modification to the Security Sub-Committee (SSC) and Operations Group (OPSG), with the TABASC statement included. Both the SSC and OPSG Chairs agreed with the statement that only the Installation End Date should be extended.

Potential increased site visits for Suppliers

During the July 2023 TABASC meeting, Supplier members noted that there could be an increase in site visits if only the Installation End Date was extended.

They noted that currently Meter Installers who work on behalf of Suppliers can choose any Communications Hubs to install. As such, they will likely have large quantities of Communications Hubs in warehouses which are mixed, with no existing process to easily separate them. The member noted that this modification would mean that Meter Installers would need to have processes in place to distinguish between each Communications Hub before they install them. They added Suppliers are unlikely to have such filtering processes in place currently and therefore their Installers may install outdated versions of Communications Hubs in error.

Should this occur and the Communications Hub is in the 2% of Devices which the DCC was unable to update the firmware via an OTA firmware upgrade, the DCC would then notify the Supplier that they would need to attend the site and replace the Communications Hub. In turn, would lead to increased costs for Suppliers.

Length of End Date extension

In all Sub-Committee meetings, members noted that there have been several previous modifications to extend the CHTS v1.1 and GBCS v2.1 Installation and Maintenance End Date. They referenced the previous modifications there have been to extend the End Dates and asked whether the extension should be made even longer so further modifications are not needed each time the End Date is expiring. SECAS noted that the DCC has made these calculations based on the rates of installations against the rate that Communications Hubs are being produced to these specifications. These calculations had led them to believe that a 24-month extension would be suitable to ensure all Communications Hubs produced to these specifications could be installed.

Potential amendment to Section A3.33

During initial discussions on this modification, it was suggested that TSAT extensions could be managed via alternate governance, as opposed SEC Modifications. They added that rather than updating the TSAT tables via a SEC modification each time they deem the Installation End Dates and Maintenance End Dates, the decision could rest with an appropriate Sub-Committee.

SECAS notes that Parties the next versions of CHTS and GBCS in the TSAT do not have Installation End Dates and Maintenance End Dates. As such, there is no need to raise modifications to alter these versions.

Liability to update with Suppliers or Manufacturers?

In the July 2023 OPSG meeting, one member challenged the suggestion of only extending the Installation End Date as they were uncertain whether the liability to upgrade patches and firmware would rest with the Supplier or the Manufacturer. The TABASC representative was present at the meeting and noted that the DCC would be responsible for all firmware upgrades to Communications Hubs which had already past the Maintenance End Date. This is because the Device is unable to be maintained at an earlier version of firmware and therefore must be upgraded to the latest version of firmware.

Devices marked as 'Withdrawn'

During the OPSG meeting members questioned whether not extending the Maintenance End Date would impact the DCC User Interface Specification (DUIS) version or the corresponding entries on the Smart Metering Inventory (SMI) or Central Products List (CPL). Members noted that they would like clarification that entries in each of these documents would not be marked as withdrawn or removed if the Device was outside of the corresponding Maintenance Validity Period. Members also sought assurance that the only impact of this modification would be the requirement on the DCC to upgrade to a valid version as soon as possible.

SECAS confirms that existing entries will not be marked as withdrawn or removed from the CPL or SMI once the Maintenance End Date has passed. In addition, it would be up to the DCC to upgrade the Communications Hub to the most recent valid version as soon as possible.

8. Appendix 1: Progression timetable

Timetable	
Event/Action	**Date**
Draft Proposal raised	13 Jun 2023
CSC converts Draft Proposal to Modification Proposal	20 Jun 2023
Modification discussed with Working Group	5 Jul 2023
Modification discussed with TABASC	6 Jul 2023
Modification discussed with SSC	12 Jul 2023
Modification discussed with OPSG	24 Jul 2023
Refinement Consultation	9 Aug 2023 – 31 Aug 2023
Modification discussed with Working Group	*4 Oct 2023*
Modification Report approved by CSC	*17 Oct 2023*
Modification Report Consultation	*18 Oct 2023 – 8 Nov 2023*
Change Board Vote	*20 Dec 2023*

Italics denote planned events that could be subject to change

9. 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**
CHTS	Communications Hub Technical Specifications
CPA	Commercial Product Assurance
CPL	Central Products List
CSC	Change Sub-Committee
DCC	Data Communications Company
GBCS	Great Britain Companion Specification
IVP	Installation Validity Period
MVP	Maintenance Validity Period
OTA	Over-the-air
OPSG	Operations Group
SEC	Smart Energy Code
SECAS	The Smart Energy Code Administrator and Secretariat
SMKI PMA	Smart Metering Key Infrastructure Policy Management Authority
SSC	Security Sub-Committee
TABASC	Technical Architecture and Business Architecture Sub-Committee

Glossary	
Acronym	**Full term**
TSAT	Technical Specification Applicability Tables