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DP227 'Pre-SMETS2 v4.2 Device IVP Extension'

Modification Report

Version 0.2

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Managed by



About this document

This document is a draft Modification Report. It currently sets out the background, issue, solution, impacts, costs, implementation approach 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 two annexes:

- **Annex A** contains the redlined changes to the Smart Energy Code (SEC) required to deliver the Proposed Solution.
- **Annex B** contains the collated non-confidential responses to the request for information (RFI).

Contact

If you have any questions on this modification, please contact:

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1. Summary

This proposal has been raised by Olga Goc from Ecotricity.

The SEC sets out the Smart Metering technical specifications. To ensure interoperability, the dates that these technical specifications can be used are set out within SEC Schedule 11 'Technical Specification Applicability Tables' (TSAT). The Installation Validity Period (IVP) sets out the date until which these Devices can be installed. The current IVP end date displayed in the TSAT for all pre-Smart Metering Equipment Technical Specifications (SMETS) 2 v4.2 Devices is 27 April 2023.

This modification seeks to extend these IVP end dates by 12 months, allowing Supplier Parties, Device Manufacturers and Meter Asset Providers (MAPs) time to install their existing stock and therefore avoid the significant financial and environmental costs of scrapping otherwise healthy Devices.

This modification will impact Suppliers and Other SEC Parties (Device Manufacturers and MAPs). The cost to implement will be limited to Smart Energy Code Administrator and Secretariat (SECAS) time and effort. This is a Self-Governance Modification and, if approved, will be implemented in an ad-hoc SEC Release 10 Working Days after decision.

2. Issue

What are the current arrangements?

The SEC sets out the Smart Metering technical specifications. These include the SMETS and the Great Britain Companion Specification (GBCS). To ensure interoperability the TSAT specifies the dates Devices using these specifications can be installed and maintained. The IVP sets out the date until which these Devices can be installed. The current IVP end date displayed in the TSAT for all Devices with SMETS2 versions prior to v4.2 is 27 April 2023. This encompasses Electricity Smart Metering Equipment (ESME) Devices, Gas Smart Metering Equipment (GSME) Devices, Prepayment Interface Devices (PPMIDs) and Home Area Network (HAN) Connected Auxiliary Load Control Switches (HCALCS). The Maintenance Validity Period (MVP) end date is given as 'Not determined'.

What is the issue?

If the IVP end date for pre-SMETS2 v4.2 Devices is not extended, any of these Devices not yet installed will need to be scrapped at financial and environmental cost, as Supplier Parties, Device Manufacturers, and MAPs would not be able to install their existing stock.

What is the impact this is having?

Doing nothing means Supplier Parties with large stock volumes of pre-SMETS2 v4.2 Devices will be unable to install these after the current IVP date within the TSAT. This will result in a large financial impact in the form of stock write-offs for Suppliers, Device Manufacturers and MAPs and the environmental impact of scrapping the remaining meter stock.

Impact on consumers

There is no direct impact on consumers. However, if Supplier Parties and Device Manufacturers incur financial costs by having to scrap pre-SMETS2 v4.2 Devices due to not having them installed by the IVP end date, there may be a pass-through of costs to consumers.

3. Solution

Proposed Solution

The Proposed Solution is to extend the IVP end-date for any pre-SMETS2 v4.2 Devices from its current date of 27 April 2023 for a further 12 months to 27 April 2024. This will allow Supplier Parties, Device Manufacturers and MAPs to avoid the significant financial costs that would be caused by having to write off the existing stock of pre-SMETS v4.2 Devices which wouldn't be able to be installed past the current IVP end-date.

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
✓	Device Manufacturers		Flexibility Providers

Supplier Parties

Supplier Parties would be granted additional time to install pre-SMETS2 v4.2 Devices they currently hold, preventing avoidable financial and environmental costs due to wasted stock.

Device Manufacturers

Device Manufacturers would be able to reduce or remove potential write-offs of pre-SMETS2 v4.2 stock they have produced which have not been ordered by Suppliers due to reduced installation rates of such Devices.

Meter Asset Providers

MAPs would be able to work with Suppliers to ensure that existing stocks of pre-SMETS2 v4.2 Devices can be installed, preventing avoidable financial and environmental costs due to wasted stock.

DCC System

This modification will have no impact on the DCC System.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Schedule 11 'Technical Specification Applicability Tables'

The changes to the SEC required to deliver the proposed solution can be found in Annex A.

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 modification will not require updates to the Devices themselves, however it will extend the end date for their installation with SMETS2 versions earlier than v4.2.

Consumers

This modification will have a positive impact on consumers as it will reduce the possibility of pass-through costs from Suppliers which may be incurred through the cost of scrapping otherwise healthy Devices.

Other industry Codes

This modification will have no impact on other industry Codes.

Greenhouse gas emissions

This modification will have a positive impact on greenhouse gas emissions as it will prevent Device scrapping.

5. Costs

DCC costs

There will be no DCC costs to implement this modification.

SECAS costs

The estimated SECAS implementation cost to implement this as a standalone modification is half a day of effort, amounting to approximately £300. 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

There will be no SEC Party costs to implement this modification.

6. Implementation approach

Recommended implementation approach

SECAS is recommending an implementation date of:

- **One Working Day after decision.**

The next available scheduled release date is 29 June 2023 (June 2023 SEC Release). This is after the IVP end date has passed. Therefore, this modification will be implemented in an ad-hoc release to ensure continuity of the IVP. If this modification is approved under Self-Governance, the implementation date will be one Working Day following the end of the Self-Governance referral window.

7. Assessment of the proposal

Observations on the issue

To understand the impact of not extending the IVP end date, SECAS issued an RFI to investigate the quantities of pre-SMETS2 v4.2 Devices waiting to be installed, how long Parties anticipate it will take to install them and the scrappage costs to those Parties if the IVP end date is not extended. Seven SEC Parties responded: four Large Suppliers, two Small Suppliers and one Other SEC Party. All

respondents advised they hold pre-SMETS2 v4.2 stock and noted potential material financial impacts of varying degrees, which totalled approximately £850,000.

As this particular IVP end date has previously been extended twice prior to this modification being raised, SECAS will work with industry Parties to understand the value of mandating this under the SEC. Due to the time pressures of extending the date before the current date expires, this wider piece of work will be completed separately to this modification.

Sub-Committee input

SECAS has engaged with the Chairs from the Operations Group (OPSG), the Technical Architecture and Business Architecture Sub-Committee (TABASC), the Security Sub-Committee (SSC) and the Smart Metering Key Infrastructure Policy Management Authority (SMKI PMA) to confirm what input is required from these forums.

The OPSG Chair advised that the Strategic Working Group has reviewed interoperability of Devices with different technical specification versions from a strategic point of view. Some members felt that increasing numbers of variants was a concern as more variants make it harder to monitor Devices in the field and increase testing complexities and costs.

The SSC Chair felt that any initiative which avoids scrapping of Devices is positive, although noted this benefit would have to be weighed against technical concerns. The SSC Chair noted there are no risks from a security perspective to extending the IVP for these Devices.

Solution development

The RFI respondents cited varying timescales for the installation of their remaining stock, and the Proposer agreed based on the responses to a proposed extension to the IVP end date of 12 months.

8. Case for change

Business case

If the IVP end date is not extended this would result in the scrapping of pre-SMETS2 v4.2 Devices in the hundreds of thousands. These Devices are otherwise healthy and the SSC Chair has advised their installation poses no security risk. This scrapping would have significant financial impacts on the Suppliers, Device Manufacturers and MAPs which currently hold these Devices and a negative environmental impact.

Views against the General SEC Objectives

Proposer's views

The Proposer believes this Modification Proposal better facilitates SEC General Objective (a)¹, as this will help to facilitate the efficient provision and installation of smart metering systems by avoiding costs and environmental wastage through stock write-offs.

¹ Facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises within Great Britain.

Industry views

All seven RFI respondents supported an extension to the IVP end date for pre-SMETS2 v4.2 Devices. Three respondents specifically supported an extension of 12 months and two respondents stated they would expect to have completed installations within six months of the current end date.

Views against the consumer areas

Improved safety and reliability

This modification is neutral against this consumer area.

Lower bills than would otherwise be the case

This modification is positive against this consumer area. The extension of the IVP end date would not directly lead to consumer savings, but where thousands of meters would otherwise be scrapped it would prevent any pass-through of these costs to consumers.

Reduced environmental damage

This modification is positive against this consumer area due to the prevention of scrapping thousands of usable Smart Meters and other such pre-SMETS2 v4.2 Devices. The Devices being scrapped would be replaced for no reason other than the validity period ending on the SMETS2 versions they operate on, despite no technical issues.

Improved quality of service

This modification is neutral against this consumer area.

Benefits for society as a whole

This modification is neutral against this consumer area.

Final conclusions

Leaving the IVP end date for pre-SMETS2 v4.2 Devices at its current date would have significant financial and environmental implications. No risks have been identified to extending the end date by a further 12 months. SECAS will work with industry Parties to understand the wider implications of this IVP end date and others, to ensure that these more accurately reflect the changes in the industry since they were originally instated.

Appendix 1: Progression timetable

Following work to clarify the scale of the issue via an RFI, SECAS will present this modification to the Change Sub-Committee (CSC) on 21 February 2023 for progression directly to the Report Phase. The Change Board vote would then take place on 29 March 2023 under Self-Governance. If approved, this modification would be implemented on 17 April 2023 as a standalone release.

Timetable	
Event/Action	Date
Draft Proposal raised	24 Jan 2023
Request for Information	24 Jan 2023 – 13 Feb 2023
<i>Modification Report approved by CSC</i>	<i>21 Feb 2023</i>
<i>Modification Report Consultation</i>	<i>22 Feb 2023 – 14 Mar 2023</i>
<i>Change Board Vote</i>	<i>29 Mar 2023</i>

Italics denote planned events that could be subject to change

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
CSC	Change Sub-Committee
ESME	Electricity Smart Metering Equipment
GBCS	Great Britain Companion Specification
GSME	Gas Smart Metering Equipment
HAN	Home Area Network
HCALCS	HAN Connected Auxiliary Load Control Switches
IVP	Installation Validity Period
MAP	Meter Asset Provider
MVP	Maintenance Validity Period
OPSG	Operations Group
PPMID	Prepayment Meter Interface Device
SEC	Smart Energy Code
SECAS	The Smart Energy Code Administrator and Secretariat
SMETS	Smart Metering Equipment Technical Specifications
SMKI PMA	Smart Metering Key Infrastructure Policy Management Authority
SSC	Security Sub-Committee
TABASC	Technical Architecture and Business Architecture Sub-Committee
TSAT	Technical Specification Applicability Tables

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Annex A

Legal text – version 0.1

About this document

This document contains the redlined changes to the SEC that would be required to deliver this Modification Proposal.

Schedule 11 'Technical Specification Applicability Table'

These changes have been redlined against Schedule 11 version 18.0.

Amend Sections of the TSAT as follows:

SMETS2+ Devices: GSMETS and Relevant Versions of GBCS

GSMETS Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
2.0	30/09/16	27/04/2 4 ³	30/09/16	Not determined	1.1	06/11/17	Not determined
3.1	08/11/18	27/04/2 4 ³	08/11/18	Not determined	2.0	28/10/18	Not determined
3.1	08/11/18	27/04/2 4 ³	08/11/18	Not determined	2.1	28/10/18	Not determined
4.2	29/11/19	Not determined	29/11/19	Not determined	3.2	29/11/19	Not determined
4.3	29/11/20	Not determined	29/11/20	Not determined	3.2	29/11/20	Not determined
4.3	29/11/20	Not determined	29/11/20	Not determined	4.0	29/11/20	Not determined
4.3	04/11/21	Not determined	04/11/21	Not determined	4.1	04/11/21	Not determined

SMETS2+ Devices: ESMETS and Relevant Versions of GBCS

ESMETS Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
2.0	30/09/16	27/04/243	30/09/16	Not determined	1.1	06/11/17	Not determined
3.1	08/11/18	27/04/243	08/11/18	Not determined	2.0	28/10/18	Not determined
3.1	08/11/18	27/04/243	08/11/18	Not determined	2.1	28/10/18	Not determined
4.2	29/11/19	Not determined	29/11/19	Not determined	3.2	29/11/19	Not determined
5.0	29/11/20	Not determined	29/11/20	Not determined	4.0	29/11/20	Not determined
5.1	04/11/21	Not determined	04/11/21	Not determined	4.1	04/11/21	Not determined

SMETS2+ Devices: PPMIDTS and Relevant Versions of GBCS

PPMIDTS Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
2.0	30/09/16	27/04/243	30/09/16	Not determined	1.1	06/11/17	Not determined
3.1	08/11/18	27/04/243	08/11/18	Not determined	2.0	28/10/18	Not determined
3.1	08/11/18	27/04/243	08/11/18	Not determined	2.1	28/10/18	Not determined
4.2	29/11/19	Not determined	29/11/19	Not determined	3.2	29/11/19	Not determined
4.3	29/11/20	Not determined	29/11/20	Not determined	3.2	29/11/20	Not determined
4.3	29/11/20	Not determined	29/11/20	Not determined	4.0	29/11/20	Not determined

PPMIDTS Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
4.4	04/11/21	Not determined	04/11/21	Not determined	4.1	04/11/21	Not determined

SMETS2+ Devices: HCALCSTS and Relevant Versions of GBCS

HCALCSTS Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
2.0	30/09/16	27/04/24 ³	30/09/16	Not determined	1.1	06/11/17	Not determined
3.1	08/11/18	27/04/24 ³	08/11/18	Not determined	2.0	28/10/18	Not determined
3.1	08/11/18	27/04/24 ³	08/11/18	Not determined	2.1	28/10/18	Not determined
4.2	29/11/19	Not determined	29/11/19	Not determined	3.2	29/11/19	Not determined
5.0	29/11/20	Not determined	29/11/20	Not determined	4.0	29/11/20	Not determined
5.1	04/11/21	Not determined	04/11/21	Not determined	4.1	04/11/21	Not determined

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Annex B

Request for information responses

About this document

This document contains the non-confidential collated responses received to the DP227 request for information.

Question 1: How many pre-SMETS2 v4.2 Devices do you have waiting to be installed?

Question 1			
Respondent	Category	Response	Rationale
British Gas	Large Supplier	Yes	Confidential response omitted.
EDF Energy Customers Ltd.	Large Supplier	Confidential response omitted.	Included in the volumes above are assets that are yet to be re-used. They are shown by location, specifically in our warehouse, those that have been delivered to engineers but are yet to be installed, those in quarantine under investigation, and those in triage which are yet to be processed. SMETS version is based on firmware and CPL listing. All of these meters have a possibility of being installed, although ones in quarantine, triage, and to some extent those in the warehouse do need further investigation and processing before this can be confirmed due to the age, configuration and potential condition of the meter. Please note, all of the meters in triage will have had a failed previous attempt to install so will be in varying physical conditions and may have proceeded too far down the installation process to be reused. As such, not of these meters will actually be re-usable. Exclusions to the volumes above include: - Meters with known faults that EDF will not install - Meters installed and removed where no viable use case 4 solution has made it to market.

Question 1			
Respondent	Category	Response	Rationale
			- Meters with an unclear location which may be lost
OVO Energy	Large Supplier	Confidential response omitted.	
Utility Warehouse	Large Supplier	Confidential response omitted.	
Ecotricity Ltd.	Small Supplier	Confidential response omitted.	Due to challenges in the industry, we were unable to install number of meters which has been forecasted and agreed with the installers.
So Energy	Small Supplier	Confidential response omitted.	Stock check
Horizon Energy Infrastructure	Other SEC Party	Yes	Confidential response omitted.

Question 2: Does How long do you anticipate it will take for all of your pre-SMETS2 v4.2 Devices to be installed?

Question 2		
Respondent	Category	Response
British Gas	Large Supplier	Confidential response omitted.
EDF Energy Customers Ltd.	Large Supplier	Confidential response omitted.
OVO Energy	Large Supplier	Confidential response omitted.
Utility Warehouse	Large Supplier	Confidential response omitted.
Ecotricity Ltd.	Small Supplier	Confidential response omitted.
So Energy	Small Supplier	Confidential response omitted.
Horizon Energy Infrastructure	Other SEC Party	Confidential response omitted.

Question 3: What will the impact be to your organisation if the IVP end-date is not extended past 27 April 2023?

Question 3		
Respondent	Category	Response
British Gas	Large Supplier	Confidential response omitted.
EDF Energy Customers Ltd.	Large Supplier	Yes. It is very likely that meters in Triage status will not be able to be reused based on the current date. EDF would incur a 'asset cost' incurred for each meter that could have been installed but cannot be, as well as the cost to scrap the meter. Each scrapped meter will also create environmental impact in the form of physical waste, and another meter will have to be built to take its place further increasing the demand for materials, energy to produce and transport, therefore further the environmental impact
OVO Energy	Large Supplier	Confidential response omitted.
Utility Warehouse	Large Supplier	Increased costs for scrappage of unused meters. Confidential response omitted.
Ecotricity Ltd.	Small Supplier	There would be a significant financial impact as we would have to scrap the devices
So Energy	Small Supplier	Confidential response omitted.
Horizon Energy Infrastructure	Other SEC Party	Confidential response omitted.

Question 4: Please provide any further comments you may have.

Question 4		
Respondent	Category	Comments
British Gas	Large Supplier	Confidential response omitted.
EDF Energy Customers Ltd.	Large Supplier	Based on the above, EDF would support an extension from an environmental and a cost point of view.
OVO Energy	Large Supplier	Confidential response omitted.
Utility Warehouse	Large Supplier	Utility Warehouse requests that the IVP end-date be extended to enable more meters to be installed and avoid unnecessary scrapping of meters.
Ecotricity Ltd.	Small Supplier	Should IVP not be extended we would have to write off all pre V4.2 devices which has significant financial impact taking into consideration asset cost itself and scrapping charges. Additionally, there is an unnecessary environmental impact of scrapping huge amounts of meters and PPMIDs which can be avoided if IVP is extended.
So Energy	Small Supplier	So Energy would support an extension of the IVP
Horizon Energy Infrastructure	Other SEC Party	Confidential response omitted.