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Paper Reference:	**SECP_73_1110_16**
Action:	**For Decision**

DP087 Problem Statement

1. Purpose

Draft Proposal DP087 'Correction to SEC Section G - User Responsibilities' was raised by the Security Sub-Committee (SSC) and has undergone the Development Stage. The Change Sub-Committee (CSC) believes this Draft Proposal is ready to be converted to a Modification Proposal. This paper sets out our proposed approach for progressing this modification for the Panel's approval. We are recommending that this modification be progressed as a Fast-Track Modification Proposal and that the Panel approves the Modification Proposal for implementation.

This paper provides a high-level summary of the key points. A copy of the problem statement submitted by the Proposer can be found in Appendix A, and the draft Modification Report can be found in Appendix B.

2. Summary of the proposal

What is the issue?

An error has been identified in SEC Section G 'Security' which compromises the security of the Smart Metering System. The section needs to be amended so that it can differentiate between obligations relating to the Communications Hub Function (CHF) and the Gas Proxy Function (GPF) for SMETS1 and SMETS2+ Devices.

What is the proposed solution?

The proposed solution is to amend the wording in Section G3.20 so that it can differentiate between SMETS1 and SMETS2+ Devices when detailing security obligations between Users and the Data Communications Company (DCC).

3. Proposed progression

The Change Sub-Committee (CSC) has agreed that this Draft Proposal is ready to be converted to a Modification Proposal.

Progression as a Fast Track Modification Proposal

A Fast-Track Modification Proposal can be progressed to correct typographical errors or other minor factual inaccuracies or inconsistencies in the SEC that do not constitute material changes.

We believe that this modification should be progressed as a Fast-Track Modification Proposal. Both the Proposer and the CSC believe the solution is intended to correct an error with missing text, and would not constitute a material change. This is purely a change to amend an error in the obligations surrounding the DCC and Users. The SSC agrees that this change addresses the security issue.

For a Modification Proposal to progress as Fast-Track, the Panel must unanimously agree this approach and that the change should be approved. There is then a 15 Working Day objection period. If no objections are received from Parties, the Panel's decision is final, and the changes are implemented. If the Panel is not unanimous or if any objections are notified, the Panel must progress the Modification Proposal down a different route to decision.

Implementation approach

If the Panel agrees that this is a Fast Track Modification Proposal and no objections are received, we believe this change should be included as part of the November 2019 SEC Release.

4. Recommendations

The Panel is requested to:

- **AGREE** that DP087 is ready to be converted to a Modification Proposal;
- **AGREE** that MP087 should be progressed and approved as a Fast-Track Modification Proposal;
- **APPROVE** the Modification Report; and
- **APPROVE** the implementation approach.

Harry Jones

SECAS Team

4 October 2019

Attachments:

- **Appendix A:** DP087 problem statement
- **Appendix B:** MP087 Modification Report
    - **Annex A:** MP087 Legal Text

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DP087 'Correction to SEC Section G – User Responsibilities'

Problem statement – version 1.0

About this document

This document provides a summary of this Draft Proposal, including the issue or problem identified, the impacts this is having, and the context of this issue within the Smart Energy Code (SEC).

Proposer

This Draft Proposal has been raised by Gordon Hextall on behalf of the Security Sub-Committee (SSC).

What is the issue or problem identified?

An error has been identified in SEC Section G 'Security' which compromises the security of the smart metering system.

Where did the error occur?

It was been observed that since SEC version 5.20, an error has been present in SEC Section G3.20. In the previous SEC versions, Section G had specified in both Sections G3.17 and G3.20 that a Communications Hub Function (CHF) or Gas Proxy Function (GPF) were noted as exclusions from User obligations. This was because, at the time, the SEC excluded obligations relating to Smart Metering Equipment Technical Specifications (SMETS) 1 enrolled Devices and the Communication Hub security responsibility lay with the DCC, rather than the User.

When SEC version 5.20 was designated to include User obligations for enrolled SMETS1 Devices, a change was made to Section G3.17 to exclude the User from the obligation in respect of SMETS2+ Communications Hub Functions or Gas Proxy Functions, which ensured that the Supplier would be responsible for a SMETS1 Communication Hub. Section G3.20, however, was erroneously left unchanged and should have contained the same exclusions relating to SMETS2 Communication Hub Functions and Gas Proxy Functions.

BEIS has agreed that Section G3.20 should have been amended so that it can differentiate between obligations relating to the Communications Hub Function and GPF for SMETS1 and SMETS2+ Devices. This way, it will be explicitly defined that Users will be responsible for the SMETS1 Communication Hubs and GPF.

How does this issue relate to the SEC?

SEC version 5.20 introduced the following change to Section G3.17:

G3.17 Where a User becomes aware of any material security vulnerability in, or likely cause of a material adverse effect on the security of:

(a) any hardware, software or firmware which forms part of its User Systems; or SEC – Section G 322

(b) (where applicable) any Smart Metering System (excluding a Communications Hub Function or Gas Proxy Function which forms part of a SMETS2+ Device) for which it is the Responsible Supplier, it shall comply with the requirements of Section G3.18.

The following change should have been made to Section G3.20 at the same time:

G3.20 Each User shall, wherever it is practicable to do so, establish with:

(a) the manufacturers of the hardware and developers of the software and firmware which form part of its User Systems; and

(b) (where applicable) any Smart Metering System (excluding a Communications Hub Function or Gas Proxy Function which forms part of a SMETS2+ Device) for which it is the Responsible Supplier,

arrangements designed to ensure that the User will be notified where any such manufacturer or developer (as the case may be) becomes aware of any material security vulnerability in, or likely cause of a material adverse effect on the security of, such hardware, software, firmware or Device.

With BEIS confirming that Section G3.20 needing to be altered to reflect the difference between SMETS1 and SMETS2+ for User responsibilities, this impacts the SEC.

What is the impact this is having?

Currently, by having the existing Section G3.20(b) line in place, this results in Users not having a security obligation to establish arrangements to be notified of security vulnerabilities in any SMETS1 Device. BEIS has confirmed that only SMETS2+ Devices should be the DCC's responsibility, meaning the SEC is currently not reflecting the original intended security obligations. For good practise, it's important that clear guidance is given so that Users understand which obligations belong to them and which belong to the DCC.

What are the views of the industry?

Views of the DCC

The DCC stated that this Draft Proposal has a low impact on it. It commented that this amendment is a clarification between SMETS1 and SMETS2 functionality.

Views of SEC Parties

No comments from SEC Parties were received in the Development Stage.

Views of Panel Sub-Committees

The SSC were the only Panel Sub-Committee to give views on the Draft Proposal. The proposal had been raised on behalf of the SSC by one of its members, and was formally discussed at the SSC. During this time, the SSC supported this to be raised at the next Panel meeting and progressed as a Fast-Track Modification Proposal.

Views of the Change Sub-Committee

The Change Sub-Committee had no comment on the content of the Draft Proposal. One CSC member suggested that the Draft Proposal should proceed straight to Panel for conversion, given the solution was straightforward and was a clarification of obligations. The member stated there was no benefit to consulting the other Sub-Committees for opinion, to which the rest of the CSC agreed.

The CSC member after the meeting considered that this should be recommended to Panel to be progressed as a Fast-Track Modification Proposal.

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MP087

‘Correction to SEC Section G – User Responsibilities’

Modification Report

Version 0.1

About this document

This document is the Modification Report for MP087 'Correction to SEC Section G – User Responsibilities'. It provides detailed information on the background, issue, solution, costs, impacts and implementation approach. It also summarises the discussions that have been held and the conclusions reached with respect to this Modification Proposal.

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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.

1. Summary

An error has been identified in SEC Section G which compromises the security of the smart metering system. The section needs to be amended so that it can differentiate between obligations relating to the Communications Hub Function (CHF) and Gas Proxy Function (GPF) for Smart Metering Equipment Technical Specification (SMETS) 1 and SMETS2+ Devices.

Without the right alignment in place, this results in Users not having a security obligation to establish arrangements to be notified of security vulnerabilities in any SMETS1 Device. The Government Department for Business, Energy and Industrial Strategy (BEIS) has confirmed that only SMETS2+ Devices should be the Data and Communications Company's (DCC's) responsibility. This means the SEC is currently not reflecting the original intended security obligations. This will potentially cause security concerns.

The proposed solution is to clarify, within SEC Section G 'Security', a difference between SMETS1 and SMETS2+ devices. The exact area that requires amendment is Section G3.20. The solution will detail that Users are responsible for Communications Hub Function and the GPF for SMETS1 Devices. SMETS2+ Devices with either a Communications Hub Function or GPF will still be the responsibility of the DCC.

Only Supplier Parties and the DCC will be impacted, but in a positive way by clarifying their obligations in SEC Section G 'Security'. The costs will be limited to Smart Energy Code Administrator and Secretariat (SECAS) time and effort in updating the SEC. This Modification Proposal will be targeted for the November 2019 SEC Release.

2. Background

What is the issue?

An error has been identified in SEC Section G which compromises the security of the smart metering system. SEC version 5.20 introduced provisions for SMETS1 Devices. In the previous SEC versions, Section G had specified in Sections G3.17 and G3.20 that a Communications Hub Function or GPF were excluded from User obligations. This was because, at the time the SEC excluded obligations relating to SMETS1 enrolled Devices, and the Communication Hub security responsibility lay with the DCC, rather than the User.

When SEC version 5.20 was designated to include User obligations for enrolled SMETS1 Devices, a change was made to G3.17 to exclude the User from the obligation in respect of SMETS2+ Communications Hub Functions or Gas Proxy Functions which ensured that the Supplier would be responsible for a SMETS1 Communication Hub. However, Section G3.20 was incorrectly left unchanged. This section should have contained the same exclusions relating to SMETS2 Communication Hub Functions and Gas Proxy Functions.

BEIS has agreed that Section G3.20 should have been amended so that it can differentiate between obligations relating to the Communications Hub Function and the GPF for SMETS1 and SMETS2+ Devices. This way, it will be explicitly defined that Users will be responsible for the SMETS1 Communication Hubs and the GPF.

What are the impacts of doing nothing?

The current wording of Section G3.20 results in Users not having a security obligation to establish arrangements to be notified of security vulnerabilities in any SMETS1 Device. BEIS has confirmed that only SMETS2+ Devices should be the DCC's responsibility, meaning the SEC is currently not reflecting the original intended security obligations. For good practise, it is important that clear guidance is given so that Users understand which obligations belong to them and which belong to the DCC.

3. Solution

Proposed Solution

The proposed solution is to clarify, within SEC Section G 'Security', the difference between SMETS1 and SMETS2+ devices. The exact area that requires amendment is Section G3.20. The solution will detail that Users are obligated for notifying security vulnerabilities about Communications Hub Function and the GPF for SMETS1 Devices. SMETS2+ Devices with either a Communications Hub Function or GPF will still be the responsibility of the DCC.

Legal text

The changes to the SEC required to deliver the proposed solution can be found 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

All Supplier Parties and the DCC are positively impacted by this Modification Proposal. This is because the solution will clarify security obligations between the following Users and DCC, with no material or competitive impacts. Supplier Parties will be able to distinguish between whether Users or the DCC are responsible for security surrounding the Communications Hub Functions and the GPF, depending on whether it is a SMETS1 or SMETS2+ Device.

DCC System

There are no impacts on DCC Systems.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Section G 'Security'

Other industry Codes

There are no impacts on any other Energy Codes.

Greenhouse gas emissions

There are no greenhouse gas emission impacts.

5. Costs

DCC costs

There are no DCC costs to implement this modification.

SECAS costs

The estimated SECAS implementation costs to implement this modification is two days of effort, amounting to approximately £1,200. The activities needed to be undertaken for this are:

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

SEC Party costs

No SEC Party costs are anticipated.

6. Implementation approach

Recommended implementation approach

SECAS is recommending an implementation date of:

- **7 November 2020** (November 2019 SEC Release) if a decision to approve is received on or before 11 October 2019.

The Modification Proposal is being requested for approval as a Fast-Track Modification Proposal, due to not having any material impact on Systems or regulation. If the Modification Proposal is approved by the Panel on 11 October 2019, the soonest it can be implemented is 4 November 2019, following the 15 Working Day objection period. For greater economic benefit it should be included as part of the November 2019 SEC Release.

7. Conclusions

Benefits and drawbacks

The Proposer, the SSC and the CSC have identified the following benefits and drawbacks in implementing this modification:

Benefits

- This change will align the SEC to what was originally intended for the difference in SMETS1 and SMETS2+ Devices obligations.
- This will prevent any security risks or miscommunication between the DCC and Users over lack of clarity in the affected parts of SEC Section G.

Drawbacks

- The Proposer has not identified any drawbacks to this modification.

Proposer's rationale against the General SEC Objectives

Objective (a)[1]

The Proposer believes that MP087 will better facilitate SEC Objective (a) by ensuring Users and DCC know who is responsible for security related obligations for Devices.

Objective (g)[2]

The Proposer believes that MP087 will better facilitate SEC Objective (g) by correcting an error in the SEC and thereby improving the clarity and transparency of the code.

Sub-Committee views

The CSC reviewed and supported the Draft Proposal. As the solution was straightforward, the CSC agreed it is ready for conversion and should be taken to the Panel at the earliest opportunity.

The SSC reviewed and supported the Draft Proposal. Members welcomed the proposal to progress this as a Fast-Track Modification Proposal to implement the solution at the earliest opportunity.

[1] Facilitate the efficient provision, installation, operation and interoperability of smart metering systems at energy consumers' premises within Great Britain.
[2] Facilitate the efficient and transparent administration and implementation of the SEC.

Appendix 1: Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	**Full term**
BEIS	Government Department for Business, Energy and Industrial Strategy
CHF	Communications Hub Function
CSC	Change Sub-Committee
DCC	Data and Communications Company
GPF	Gas Proxy Function
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SMETS	Smart Metering Equipment Technical Specifications
SSC	Security Sub-Committee
TABASC	Technical Architecture and Business Architecture Sub-Committee

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MP087 'Correction to SEC Section G – User Responsibilities'

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.

These changes have been drafted against SEC Version 6.17.

Section G 'Security'

Amend Section G3.20 as follows:

Manufacturers: Duty to Notify and Be Notified

G3.17 Where a User becomes aware of any material security vulnerability in, or likely cause of a material adverse effect on the security of:

(a) any hardware, software or firmware which forms part of its User Systems; or

(b) (where applicable) any Smart Metering System (excluding a Communications Hub Function or Gas Proxy Function which forms part of a SMETS2+ Device) for which it is the Responsible Supplier,

it shall comply with the requirements of Section G3.18.

G3.18 The requirements of this Section are that the User shall:

(a) wherever it is reasonably practicable to do so notify the manufacturer of the hardware or Device or the developer of the software or firmware (as the case may be);

(b) take reasonable steps to ensure that the cause of the vulnerability or likely cause of the material adverse effect is rectified, or its potential impact is mitigated, as soon as is reasonably practicable; and

(c) ensure that the Security Sub-Committee is promptly notified of the steps being taken to rectify the cause of the vulnerability or likely cause of the material adverse effect, or to mitigate its potential impact (as the case may be), and the time within which those steps are intended to be completed.

G3.19 A User shall not be required to notify a manufacturer or developer in accordance with Section G3.18(a) where it has reason to be satisfied that the manufacturer or developer is already aware of the matter that would otherwise be notified

G3.20 Each User shall, wherever it is practicable to do so, establish with:

(a) the manufacturers of the hardware and developers of the software and firmware which form part of its User Systems; and

(b) (where applicable) any Smart Metering System (excluding a Communications Hub Function or Gas Proxy Function which forms part of a SMETS2+ Device) for which it is the Responsible Supplier,

arrangements designed to ensure that the User will be notified where any such manufacturer or developer (as the case may be) becomes aware of any material security vulnerability in, or likely cause of a material adverse effect on the security of, such hardware, software, firmware or Device.

G3.21 Any arrangements established in accordance with Section G3.20 may provide that the manufacturer or developer (as the case may be) need not be required to notify the User where that manufacturer or developer has reason to be satisfied that the User is already aware of the matter that would otherwise be notified under the arrangements.