

## Stage 02: Initial Modification Report

What stage is this document in the process?

01	Modification Proposal
02	Initial Modification Report
03	Draft Modification Report
04	Final Modification Report

# SECMP0015:

## GPF Timestamp for Reading Instantaneous Gas Values

Instantaneous GSME register values can be read from the Gas Proxy Function. These will not normally be in-line with the readings on the GSME, since the GSME only provides intermittent updates to the GPF, typically once every 30 minutes.

The Proposer wishes to introduce a timestamp to know when the GSME last updated the GPF, so that the Supplier knows how up to date the information is.



The recommendation is that this Modification should be:

- progressed as a Path 2: Authority Determined Modification

This Modification Proposal should:

- be progressed through the Refinement Process



Medium Impact:

This change will impact GBCS and SMETS. It will impact Energy Suppliers, the DCC, equipment manufacturers and other DCC Users.

SECP\_33\_1706\_10

SECMP0015

Initial Modification Report

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Page 1 of 18

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## Contents

1.	Summary of Modification Proposal	3
2.	Why Change?	4
3.	Proposed Solution	6
4.	Impacts & Costs	8
5.	Implementation	11
6.	Progression	12
7.	Panel Initial Assessment	17
8.	Further Information	17
9.	Glossary	18

## About this document

This document is an Initial Modification Report. It has been issued to the SEC Panel to enable the Panel to carry out its initial consideration of the Modification Proposal on how the Modification Proposal should be progressed through the Modification Process.

### Any questions?

Contact:  
Keith Phakoe

secas@gemserv.com

020 7090 7755

### Proposer:

Tim Newton

Tim.newton@eonenergy.com

### Representative:

Samuel Charlton

Sam.charlton@eonenergy.com

## 1. Summary of Modification Proposal

This section provides an overview of SECMP0015. For further details on the Modification Proposal, please refer to subsequent sections.

Defined terms and acronyms used in this document are listed in the Glossary (Section 9) of this document.

### 1.1 Why Change

The Proposer seeks to allow the Gas Proxy Function (GPF) to match the date-time stamp on the data received from the Gas Smart Metering Equipment (GSME) on its own version of the update.

### 1.2 Proposed Solution

A change to the Smart Metering Equipment Technical Specifications (SMETS) is needed to require the GSME to make available the extra Operational Data Item, for the GPF to use it when transmitting via the Communications Hub (CH). Changes are also needed to the Great Britain Companion Specification (GBCS) to specify the attribute sharing between GSME and GPF.

### 1.3 Impacts

The Proposer indicates that this Proposal will likely impact Energy Suppliers, the DCC, equipment manufacturers and other DCC Users.

Impacted SEC Subsidiary Documents are likely to include:

- Smart Metering Equipment Technical Specification 2 (SMETS2);
- Communications Hub Technical Specification (CHTS);
- GBCS; and
- DCC related documents.

### 1.4 Targeted Implementation Date

The proposal targets implementation in a release as soon as possible after DCC Live, and proposes the modification be considered for implementation as part of the June 2017 Release (also referred to as 'Release 2.0').

### 1.5 Release Management and Testing Requirements

This Modification falls under the Panel's Release Management Policy. Any necessary testing requirements will be informed during the Refinement Process and form part of the Working Group considerations. Any implications on Device testing or Assurance Certificates are the responsibility of the relevant SEC Party.

### 1.6 Proposed progression

This Modification Proposal must go through the Refinement Process pursuant to SEC Section D3.9(c), as the modification will likely require changes to DCC Systems, User Systems and Smart Metering Systems.

Section 6 of this document contains a detailed timetable and proposed/recommended Working Group constitution and supplementary questions for consideration alongside the standard Modification Proposal Working Group Terms of Reference.

SECP\_33\_1706\_10

SECMP0015

Initial Modification Report

10<sup>th</sup> June 2016

Version 1.0

Page 3 of 18

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### What's the issue?

Date-time stamp on GPF data can be 30 minutes or more different to that on the GSME

## 2. Why Change?

### 2.1 What is the issue?

The GSME is only at full power intermittently (typically once every half hour) due to saving battery life.

The GPF sits within the CH and acts as a mirror for certain GSME data so that even if the GSME is at low power the data can be read in real time.

The issue is that while both devices have a date-time stamp for when information was produced, the GSME shows real time information, while the GPF shows the date-time stamp from the point at which it was last updated by the GSME. Consequently, there can be up to a 30 minute difference between the two, and possibly more if there is a prolonged break in communication.

If a GSME drops connectivity with the HAN and out of date information is collected from the GPF, it can lead to potentially inaccurate billing, as the GSME and GPF timestamps may sit within different tariff blocks. As a consequence there may be inaccurate Direct Debit setting, and other customer impacts.

There will also be implications regarding accurate Settlement balancing, and setting of AAQs (Annual Agreed Quantity) for each meter.

This Modification Proposal deals with the following data types:

- GCS13a Read GSME Consumption Register;
- GCS13c Read GSME Register (TOU);
- GCS13b Read GSME Block Counters; and
- GCS14 Read GSME Prepayment Register(s)

The figure below shows where the GPF sits in the consumer premises operating environment, along with a more focused image showing the particular elements this Modification Proposal relates to.

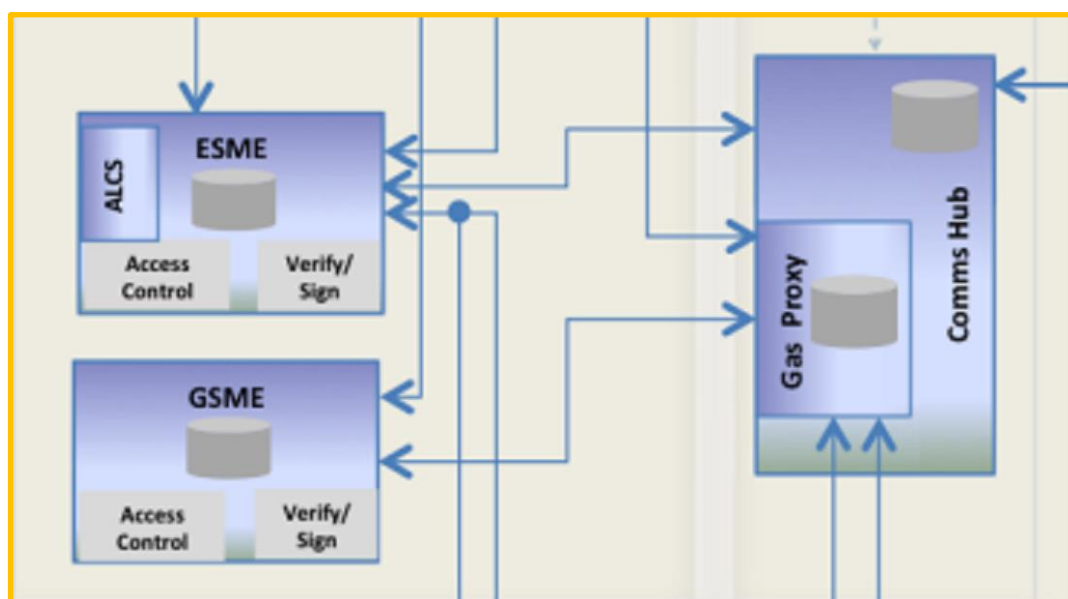
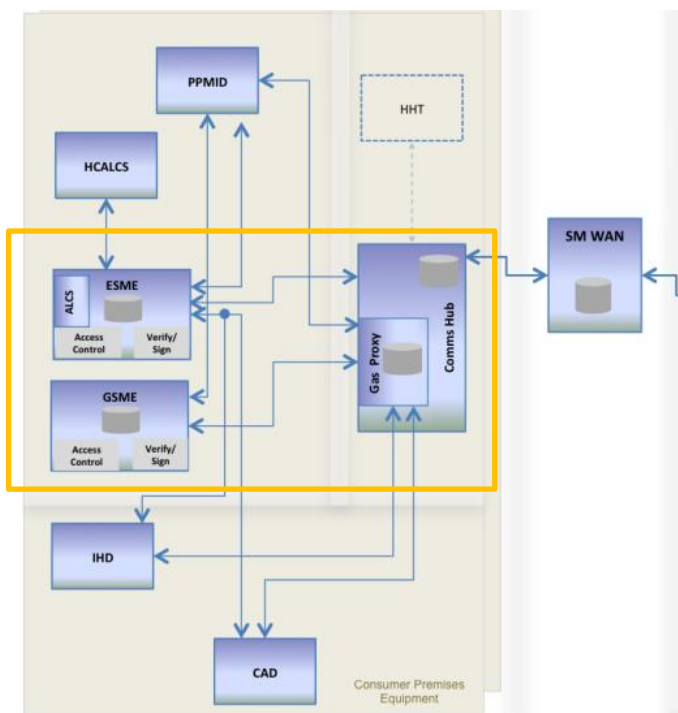


Figure 1: Consumer premises operating environment focusing on the element this Modification relates to.

As noted above, this modification is concerned with the flow of data updates from the GSME to the GPF.



### What's the solution?

Date-time stamp for GPF mirrors the one recorded by the GSME when updated.

## 3. Proposed Solution

### 3.1 What's the solution?

The solution is in three parts:

1. The GSME is able to update the GPF with the date-time stamp from when the GSME's instantaneous registers were updated.
2. The GPF copies this date-time stamp as part of its update of the GSME's instantaneous register values.
3. When the GPF creates a Response to the four data items above, it uses the date-time that the GSME transmitted to populate the relevant field in the response it generates.

This means that the Supplier (and, where there is DCC User Interface Specification (DUIS) access, the Network Operator) will know the GSME date-time to which the instantaneous register values in these Responses relate, and will be able to reliably use the information for billing, Settlement etc.

### 3.2 Legal Text

The necessary amendments to the SEC and relevant Subsidiary Documents will be prepared during the Refinement Process.

### 3.3 Applicable SEC Objectives

The below table presents the applicable SEC Objectives identified in the proposal, and the Proposers view on how the proposed would better facilitate the achievement of these objectives.

How the Modification Proposal would better facilitate achievement of the SEC Objectives	
SEC Objective	Proposer views
(a) the first General SEC Objective is to facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises within Great Britain;	<ul style="list-style-type: none"> <li>• As currently designed, where a GSME has dropped connectivity on the HAN and information is collected from the GPF, the information would be incorrectly presented as factual and up to date.</li> <li>• Use of old readings as up to date and actual will cause Settlements imbalance, incorrect billing of customers, incorrect AAQ setting and thus other knock on customer impacts (such as DD £ calculations).</li> <li>• This misinformation is directly opposed to SEC objective a) for successful operation of the Smart Metering System.</li> </ul> <p>Implementation will increase the efficient operation of a Smart Metering System and the data it provides (SEC a).</p>

SECP\_33\_1706\_10

SECMP0015

Initial Modification Report

10<sup>th</sup> June 2016

Version 1.0

Page 6 of 18

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## How the Modification Proposal would better facilitate achievement of the SEC Objectives

SEC Objective	Proposer views
(c) the third General SEC Objective is to facilitate Energy Consumers' management of their use of electricity and gas through the provision to them of appropriate information by means of Smart Metering Systems;	<ul style="list-style-type: none"> <li>• When operating smart meters in prepayment mode, the Supplier needs to understand the timeliness of the meter balances of each meter when talking to the customer.</li> <li>• This cannot be achieved with confidence, unless we know when the information retrieved from the GPF has been updated from the GSME.</li> <li>• Provision of such information supports SEC objective c) to aid a customer in managing their gas consumption through appropriate information.</li> <li>• As currently designed, where a GSME has dropped connectivity on the HAN and information is collected from the GPF, the information would be incorrectly presented as factual and up to date.</li> <li>• Use of old readings as up to date and actual will cause Settlements imbalance, incorrect billing of customers, incorrect AAQ setting and thus other knock on customer impacts (such as DD £ calculations).</li> <li>• This misinformation is directly opposed to SEC objective c) as incorrect reads will lead customers to incorrectly budget and understand their consumption.</li> </ul> <p>Implementation will provide correct data for a customer to use for energy management decisions (SEC c)</p>

## 4. Impacts & Costs

The following section sets out the initial assessment of the likely impacts arising from SECMP0015. Additional impacts may be identified by the Working Group in the Refinement Phase.

### 4.1 Impacts

The following is provided as an indication of likely impacts as known at this time. The Refinement Process will further inform the effects of SECMP0015.



#### Are there any Impacts?

Changes to SMETS and GBCS, Suppliers, Network Operators, GSME and CHs

#### Material Impact on Greenhouse Gas Emission

There is no material impact on Greenhouse Gas Emissions

#### Impact on Parts of Smart Energy Code or SEC Subsidiary Documents

SEC Sections, Schedules of Appendices (Subsidiary Documents) likely impacted	Potential Impact
SEC Section A: Definitions and Interpretations	To capture any additional terminology that may need to be introduced as a result of the Modification Proposal
SEC Section F: Smart Metering System Requirements	These sections relate to smart meter installation and maintenance, and may need to include an amendment which allows for the mirroring of GSME and GPF date-time stamps.
GBCS	To <b>GBCS</b> to specify the attribute sharing between GSMEs and GPFs, and the GPF processing of the attribute in populating the date-time field in Responses for the four affected Use Cases.
SMETS	To <b>SMETS</b> to require GSMEs to make available the extra Operational Data Item [Note: this means that CHs would need to maintain a copy, since CHTS 4.5.2 requires that CHs can maintain a copy of all SMETS Operational Data].



## Impact on Parts of Smart Energy Code or SEC Subsidiary Documents

DCC User Interface Specification (DUIS)	This Subsidiary Document relates to smart meter installation and maintenance, and may need to include an amendment which allows for the mirroring of GSME and GPF date-time stamps. (There may also need to be a Message Mapping Catalogue (MMC) documentation update to reflect the meaning of the date-time stamp in the four Responses.)
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## Impact on other Codes and documents

Code(s) and Reference	Product Reference
No impact currently identified.	

## Impact on Smart Energy Code Party Categories

Party Category	Potential Impact
Suppliers and Network Operators	Relevant Service Request(s) to read instantaneous values.
Other SEC Parties (such as device manufacturers)	

## Impact on DCC Systems (subject to DCC assessment)

Area of DCC impacted	Potential Impact
Data and Communication Company (DCC)	The DCC will need to support the development of the modification through input into the Working Group discussions. They will also need to support the implementation of the changes, where the DCC and its systems are impacted, if the Modification Proposal is approved.
Data Service Provider (DSP) Communications Service Providers (CSP) Trusted Provider	CHs will likely need to change to support the implementation of the changes.

Other impacts to be informed through the Refinement Process

SECP\_33\_1706\_10

SECMP0015

Initial Modification Report

10<sup>th</sup> June 2016

Version 1.0

Page 9 of 18

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Impact on other Systems	
Area of impact	Potential impact
Smart Metering Systems	GSME and CHs may need change to implement the changes.
User Systems	User Systems may need to be modified to reflect the changed meaning of the date-time stamp in the affected GPF Responses.
Other (e.g. Security and PKI)	To be informed through the Refinement Process

## Impact on Consumers

The Proposer's view is that the huge increase in reliability of the information stored on the GPF will improve both consumption data and real time calculation of customer spend with more accurate tariff measurement, and consequently the billing that they receive. Therefore this modification directly benefits consumers.

## 4.2 Costs

The costs of implementing SECMP0015 will be identified as it progresses through the Refinement Process. These costs will capture indicative DCC implementation costs as provided in their impact assessment responses and any SEC Party costs (where provided during the relevant consultations).




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**When will the  
modification be  
implemented?**

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The Proposer has requested that this Modification Proposal should be considered for implementation as part of the June 2017 Release.

## 5. Implementation

The Proposer has requested that this Modification Proposal is implemented as part of the June 2017 Release (Release 2). It may become clearer during the Refinement Process whether June 2017 is achievable under the development of the necessary implementation timetable and associated activities.

### 5.1 Modification Testing Requirements

The Panel Release Management Policy notes that, as part of the Panel's considerations of a Modification Proposal and the associated implementation timetable and date, the Panel will consider what testing is required and who will be eligible to participate. SEC Section H14 requires the DCC to make provision for Modification Proposal implementation testing as part of its Testing Services.

The testing requirements under the Panel Release Management Policy are yet to be fully defined. It is anticipated that this Modification Proposal may require testing consistent with the SEC Section T arrangements for:

- i. DCC testing (Systems Integration Testing (SIT)); and
- ii. Interface Testing (IT), with a representative number of Users and DCC to demonstrate the capability of the DCC solution to interoperate with User Systems.

In both cases, the approach for SIT and IT, where required, will be informed during the Refinement Process, hence SECAS has added this aspect to the considerations of the Working Group (see section 6.6 below).

It is noted that the final testing scope and arrangements will be integrated under the Panel Release Management Policy approach for the relevant release.

## 6. Progression

### 6.1 Modification Path

Based on the initial review of the Modification Proposal and subsequent discussion with the Proposer, SECAS recommends that the appropriate Modification Path is: Path 2 - Authority Determined

### 6.2 Progression route

The Refinement Process is required for this Modification Proposal as the Proposer has identified that it affects DCC Systems, User Systems, and Smart Metering Systems, which are the SEC criteria for following the Refinement Process (see SEC Section D3.9(c)).

The Refinement Process (SEC Section D6) requires that a Working Group is established by the Panel to undertake the Refinement Process. In outline, the objectives of the Working Group are to:

- Consider the effects of the Modification Proposal on participants, Green House Gas Emissions and Other Energy Codes;
- Evaluate, develop and refine the content of the Modification Proposal, including where the Working Group considers any Alternative Proposals may be relevant, prepare and submit this into the Refinement Process with the Proposer's Modification Proposal;
- Evaluate, and amend if applicable, the proposed implementation timetable of the Modification Proposal including with regard to consistency with the Panel Release Management Policy;
- Obtain and take into account the views of other relevant Sub-Committees (Technical Sub-Committee (TSC), Security Sub-Committee (SSC), SMKI Policy Management Authority (SMKI PMA));
- Obtain assessments from the DCC as to the impact and costs;
- Consider the SEC Objectives that may be better achieved if the Modification Proposal was implemented;
- Conduct a Consultation(s);
- Consider any representations made to the Working Group by Parties; and
- Deliver a Modification Report to the Panel in respect of the Modification Proposal.

### 6.3 Working Group membership requirements

SEC Section D6.3 sets out that a Working Group must be at least 5 members with relevant expert knowledge. Therefore we propose that the Working Group be made up of:

- The Proposer or a person nominated by the Proposer as a duly authorised representative of the Proposer;
- Working Group members:
  - who are broadly representative of the Users likely to be affected by the Modification Proposal, so that the Refinement Process is well informed in this case Suppliers, and the DCC, although other interested Parties may come forward;
  - with relevant experience and expertise in relation to the subject matter of the Modification Proposal (TSC expertise need not be duplicated as this may be achieved through co-ordination between the Working Group and TSC);

- A Chair (see following section);
- A Secretary (provided by SECAS); and
- A Modification Analyst (provided by SECAS).

The Working Groups can also be attended by:

- DCC representatives;
- Ofgem representatives;
- DECC representatives; and
- Any interested members from Panel Sub-Committees, including the TSC or its Technical and Business Expert Community (TBEC).

## 6.4 Convening the Working Group

It is noted that SEC Section D6.3 makes provision for the Panel, with the cooperation of the Parties, to establish a standing list of persons with potentially relevant experience who may be willing to serve on Working Groups. The modifications raised so far have been assigned to one of 4 Working Groups. It is proposed that, as with modifications already within the Refinement Process, this modification be added to the one of these Working Groups. See section 6.7 below for further details.

It is recommended that an open invitation is issued in order to include interested parties in the Working group that this Modification is assigned to, to supplement any existing membership where required.

Modification Working Group members are required to meet the SEC requirements to confirm in writing to SECCo that they agree to serve on that Working Group and to do so in accordance with this Code.

## 6.5 Working Group Chair

SEC Section D6.4 enables the Panel to request that SECAS provide the Chair for the Working Group. While the Modification Process beds down, it is proposed that, to facilitate convening the Working Group in the first instance, SECAS provides the Chair. This is also in line with the outcomes of Ofgem's Code Governance Review (CGR) Phase 3: one outcome was that Working Groups should be chaired by the Code Administrator, unless there is a conflict of interest.

## 6.6 Working Group Terms of Reference

To meet the requirements of the Refinement Process set out in SEC Sections D6.8-D6.14 draft standard Terms of Reference are provided in Appendix B. The following questions have been identified for the Working Group to consider in order to fully assess the Modification Proposal.

### Working Group Terms of Reference – supplementary matters to consider

What is the materiality of the issue?

Is the solution proposed in this SECMP0015 more efficient than the current command set?

Are there other deficiencies in the current solution that are addressed by SECMP0015?

Is the methodology set out in SECMP0015 the preferred approach?

## Working Group Terms of Reference – supplementary matters to consider

What are the detailed changes to the DUIS to support SECMP0015 (and any Alternative(s))?

What are the systems impacts for DCC/User/smart meters?

What are the costs and lead times to introduce the solution in this SECMP0015 or its Alternative(s)?

Is the implementation timetable appropriate?

Are Consumers positively or negatively impacted by the Proposed (or any Alternative) solutions and to what extent?

What Modification Implementation Testing is required to implement the Proposed Modification, or any Alternative(s)?

What are the implementation steps and activities required to implement the Proposed (or an Alternative) Solution(s)?

Have the views of the relevant Panel Sub-Committee been taken into account?

Has the Refinement Process identified any potential reason that this Modification (or its Alternatives) may require European Commission (EC) Notification (noting that the Authority will determine if any such Notification is pursued)?

The above is not intended as an exhaustive list and it is expected that the Working Group will identify and address any other considerations that arise during the Refinement Process.

## 6.7 Timetable

As the Modifications Process has only recently been activated, the timetable set out below was put together in discussion with the Proposer and SECAS as a good faith estimate. A number of assumptions underpin this timetable:

- The Proposer has requested that the Modification Proposal is implemented as part of the June 2017 Release (Release 2).
- The proposed timetable below has been built around a June 2017 implementation date, noting that the implementation date may need to be flexible to accommodate the necessary implementation (and testing) lead times, if the Modification Proposal is approved.
- The proposed timetable includes some assumed timescales for the turnaround of DCC's Impact Assessments and the Authority determination based on the indicative timescales provided by these entities.
- If the changes associated with this modification require EC Notification, the proposed timetable does not currently capture the three month 'stand-still' during EC notification. This is on the basis that any representations received during the stand-still need not necessarily result in any material change to the notifiable document or agreed solution in any way.
- The timetable has been drawn up based on this Modification Proposal progressing without cancellation or suspension under the *Smart Metering Implementation Programme Guidance on Secretary of State involvement with industry-led*

*modifications to the Smart Energy Code during the transition to enduring governance*<sup>1</sup> document issued by DECC.

- The timetable assumes that any Panel Sub-Committee input can be fed into the Refinement process at the appropriate time, and this may be subject to alteration.

Modification Timetable	
Activity	Date
Modification Proposal raised	31 <sup>st</sup> May 2016
IMR considered by Panel	17 <sup>th</sup> June 2016
Working Group meetings Indicative activities: <ul style="list-style-type: none"> <li>Initial considerations</li> <li>Legal drafting</li> <li>Sub-Committee feedback</li> <li>Alternative(s) identified</li> <li>Impact Assessments</li> <li>Detailed evaluation</li> </ul>	June – November 2016
Working Group Consultation	September 2016
Final Working Group meeting Indicative Activities: <ul style="list-style-type: none"> <li>Consultation response summary</li> <li>Working Group deliverables met</li> <li>Assessment for Modification Report</li> </ul>	November 2016
Panel reviews Modification Report	November 2016
Modification Report phase consultation	November 2016
Change Board vote	January 2017
Modification Decision by the Authority	February 2017
Implementation	June 2017

<sup>1</sup>Available at: <https://smartenergycodecompany.co.uk/docs/default-source/modifications/decc-sec-modification-guidance-v1-0.pdf?sfvrsn=3>

## 6.7 Grouping this Modification Proposal with others

There are a number of Modification Proposals that are currently entering the SEC process that have implications for a similar set of Parties and/or SEC Subsidiary Documents. Four Working Groups have been set up to develop these Modification Proposals to increase the efficiency of the Refinement Process. Grouping similar Modification Proposals provides both value for money for the Panel budget and a reduction in commitment by Working Group Members who might otherwise have to attend several meetings to progress each modification discretely.

Accordingly, SECAS recommends that SECMP0015 is grouped into Working Group 1. Working Group 1 is currently developing modifications relation to Smart Metering Equipment and changes to Service Requests and Alerts, with relevant expertise on these. It therefore makes sense to group SECMP0015 into Working Group 1, because it is also has an impact on Smart Metering Equipment. Furthermore, Working Group 1 membership can be supplemented by additional Working Group members interested in this Modification Proposal.



## 7. Panel Initial Assessment

The Panel is requested to **NOTE** the contents of this paper for SECMP0015 and, pursuant to SEC Section D3.6, **AGREE**:

- Whether to accept the Modification Proposal;
- That SECMP0015 is a Path 2 Modification (taking into account the view expressed by the Proposer);
- That it is necessary for the Modification Proposal to go through the Refinement Process as set out in Section 6.2;
- To establish a Working Group with the membership and Working Group Chair as set out in Section 6.3;
- That SECAS should chair discussions on SECMP0015;
- The supplementary considerations for SECMP0015 to supplement the standard Working Group Terms of Reference set out in Section 6.6;
- The modification progression timetable set out in Section 6.7;
- Whether SECMP0015 should be considered together with any other current Modification Proposal(s); and
- That SECMP0015 should be considered by Working Group 1, supplemented by any other interested attendees in SECMP0015.

## 8. Further Information

More information is available in:

- Attachment **A**: Modification Proposal
- Attachment **B**: Standard Working Group Terms of Reference

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

Or contact the SECAS at [secas@gemserv.com](mailto:secas@gemserv.com).

## 9. Glossary

Glossary	
Term	Acronym
Gas Proxy Function	GPF
Gas Smart Metering Equipment	GSME
GB Companion Specification	GBCS
Smart metering equipment technical specifications	SMETS
Data and Communications Company	DCC
Smart Energy Code	SEC
SEC Modification Proposal	SECMF
Communications Hub Technical Specification	CHTS
Annual Agreed Quantity	AAQ
DCC User Interface Specification	DUIS
Home Area Network	HAN
Public Key Infrastructure	PKI
Secretary of State	SoS
Security Subcommittee	SSC
Smart Energy Code Administrator and Secretariat	SECAS
Smart Energy Code Company	SECCo
Smart Meter Wide Area Network	SM WAN
Smart Metering Implementation Programme	SMIP
Smart Metering Key Infrastructure	SMKI
Sub Committee	SC
Subsidiary Document	SD
Technical Sub-Committee	TSC

SECP\_33\_1706\_10

SECMF0015

Initial Modification Report

10<sup>th</sup> June 2016

Version 1.0

Page 18 of 18

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