

# Consultation

## SMETS1 IOC SIT: Proposed DMC Selection and Rationale

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## 1 Introduction

In the initial stages of the smart meter roll-out across Great Britain, several Energy Suppliers installed first generation smart devices (known as SMETS1 devices) in consumers' homes. These meters are, or will be, SMETS1 compliant and currently operate outside of the Data Communications Company (DCC) service. They are supported by a variety systems, with each energy supplier taking a different approach. While this initial roll out has driven out early learnings and benefits, SMETS1 meters installed by one energy supplier are not always supported by another's systems. This sometimes results in consumers losing their smart functionality when they switch energy suppliers.

DCC considers that there are important shared benefits for industry and consumers from the enrolment of SMETS1 meters into a DCC Service; particularly the ability for all SMETS1 customers to maintain their smart services following a decision to switch suppliers. DCC is therefore developing SMETS1 Services to facilitate testing and the incorporation of such devices into its data and communications service.

On 18 September 2018, Appendix AK of the Smart Energy Code (SMETS1 SVTAD) was designated. Clause 13 of the SMETS1 SVTAD sets out an obligation on DCC to discuss the proposals and set out the rationale for the selection of which DMCs are to be tested in the SMETS1 Initial Operating Capability (IOC) Systems Integration Testing (SIT).

## 2 Background

There are several hundred SMETS1 Device Model Combinations (DMCs) in use today. These range from DMCs where there are hundreds of thousands in use, to DMCs where there are below ten.

DCC has selected a number of these DMCs to be tested during System Integration Testing (SIT) for the Initial Operating Capability (IOC) for SMETS1. In making its selection the DCC has targeted the dominant DMCs that Suppliers have told us that they intend to use in IOC.

These DMCs in SIT represent approximately 40% by volume of all IOC installations deployed in the market as of November 2018. The Suppliers' planned upgrade paths at the commencement of SIT testing (April 2018) would have increased this coverage to 96% of the Active installations, and this understanding underpinned the DMCs that DCC selected to commence testing with in IOC SIT.

The Supplier instructed upgrade paths and associated DMC volumes continue to evolve and DCC is working with the Suppliers and the IOC Smart Meter System Operator (SMSO) to understand the changing position with the aim of ensuring that those DMCs that are economic to test, can be tested. Suppliers continue to have the opportunity to upgrade their firmware on their DMCs to those versions taken through IOC SIT.

As the installing Suppliers continue to install new SMETS1 DMCs and upgrade their existing DMCs DCC cannot predict the level of coverage provided by the DMCs selected for SMETS1 IOC SIT. DCC will, therefore, continue to request information from Suppliers to confirm their position.

In the meantime, DCC will continue SIT testing in IOC using the initially selected set of DMCs.

In addition to testing in SIT, DCC as outlined in the LC13 plan, are planning to introduce a new testing service, Device Model Combination Testing (DMCT). This will be available ahead of the IOC live date (Late May 2019). The ambition is that DMCT will complement the testing being undertaken in SIT for IOC, and the combination will deliver extensive coverage of all the DMCs deployed shortly after IOC.

DMCT will be the subject of a further consultation on Appendix AK of the Smart Energy Code (SMETS1 SVTAD), which will be initiated early in 2019.

This paper is issued to seek stakeholders' views on the DCC approach to the selection of DMCs for testing in IOC SIT and the DMCs that have been selected.

### **3 Rationale and Proposal**

DCC has issued a number of Requests for Information (RFI) to Suppliers and SMSOs.

The purpose of these RFIs, which will in the future be issued on a quarterly basis, is to provide a snapshot of what DMCs Suppliers intend to enrol when the DCC SMETS1 service becomes available. The RFIs cover all Operating Capabilities (i.e. IOC, MOC and FOC) and DMCs.

The RFI data provided by Suppliers has enabled DCC to validate the DMCs selected for IOC testing against the overall objective of facilitating their enrolment as soon as reasonably practicable.

The responses to the RFIs were also analysed and validated against data from the IOC SMSO which included details on the numbers of Active and Dormant DMCs. The validation exercise highlighted that approximately 10% of all IOC in-scope DMCs are Dormant and supported the numbers reported by the Suppliers.

In accordance with Clause 13.1 of the SMETS1 SVTAD, DCC will continue to regularly request information from Suppliers relating to the SMETS1 DMCs in respect of which they are the current Supplier.

#### **3.1 RFI 1**

DCC issued its initial RFI in December 2017 which was employed to determine the DMCs used in IOC SIT. The 3 Meter Manufacturers within scope of IOC are; Aclara, Itron, and Honeywell Elster.

##### **3.1.1 Draft Pending Products Combinations List (PPCL)**

DCC analysed the responses to the RFI from the Suppliers and produced a draft PPCL, containing 6 unique DMC types, that together covered >80% of DMCs intended for IOC. DCC then confirmed the draft PPCL with both Meter Manufacturers and installing Suppliers.

The discussions confirmed which firmware (F/W) versions the Suppliers have deployed in the field and the upgrades they intended to make prior to IOC. The draft PPCL was based on achieving a wide coverage of DMCs for IOC.

It was noted that should Suppliers instruct the use of different firmware versions to those indicated in their plans, this will impact the level of coverage that will be achieved. If the firmware updates are not deployed prior to SIT IOC, then the rate of enrolment will also be affected. The selected

DMCs will only deliver the objective of maximising the enrolment rate if the firmware upgrades stated by Suppliers are deployed prior to IOC.

This was communicated to the SEC Panel's Testing Advisory Group (TAG) in March 2018.

### 3.2 RFI 2

RFI 2 was issued in May 2018. It asked Suppliers for a forecast of the DMCs they expected to be deployed as of October 2018, and the associated volumes.

The responses, when assessed, showed a planned consolidation in DMCs, leading to a reduction in the number of unique DMCs under test from 6 to 4 for SIT IOC.

Of these four DMC types one was later changed. This was a consequence of the installing Suppliers, signalling their intent to target a later version for IOC.

Suppliers also reaffirmed their intentions to upgrade DMCs and/or install a previously signalled firmware version.

#### 3.2.1 DMCs in SIT

Based on the responses, forecasts, and further consultations with the Suppliers, DCC produced a Foundation PPCL that identified the 4 DMCs that DCC will take into IOC SIT. The DMCs are:

**Table 1. DMCs in IOC SIT**

PPCL v3.1	Aclara	Itron	Honeywell	Honeywell
PPC ID	1	2	3	4
Fuel Type	DF	DF	DF	DF
<b>Solution Release</b>	SR5.3.9	SR3.02	SR 8.0.12	SR 8.0.12
<b>GSME Model</b>	G4SZV	RF1 Sv ZB	BK-G4E EI2	BK-G4E EI5
<b>GSME F/W</b>	04.24.16	012-00.292/10D6	0.10.84	02.06.17
<b>ESME Model</b>	SGM1312	EM425-UK	AS300P	AS300P
<b>ESME F/W</b>	03.03.04	03.00.03.46/53.17	ASP 04.04.01-55497	ASP 04.04.01-55497
<b>CH Model</b>	SGC1311	EK410-UK	AM110R	AM110R
<b>CH F/W</b>	03.03.09	00.03.00.33/53.37	03.07.09 (49) - REV09	03.07.09 (49) - REV09
<b>IHD Firmware</b>	1.18	1.3.1.9.15	S1-1v5	S1-1v5
<b>IHD Model</b>	IHD2-TS	Duet II	IHD-L01	IHD-L01
<b>IHD Manufacturer</b>	Chameleon	GEO	STI	STI

These 4 DMCs, together, provided a forecast 96% coverage of Active deployed DMCs.

It was again noted that should Suppliers change their intent this would impact the coverage levels achieved. The selected DMCs will only deliver the objective of maximising the enrolment rate if the firmware upgrades stated by Suppliers are deployed prior to IOC.

This approach and selection of DMCs was presented to the SEC Panel's TAG in September 2018.

### 3.3 RFI 3

RFI 3 issued in October 2018 established that some Suppliers had moved in a different direction from their previously stated intent. This resulted in the DMCs selected for IOC SIT now representing a reduced 38% coverage of all deployed DMCs (Active and Dormant).

In recognition of this reduction, DCC identified options for maintaining a higher coverage of tested DMCs and these are discussed in Section 3.4.

### 3.4 DMCT

DCC, keeping the objective of facilitating enrolment of SMETS1 Smart Metering Systems as soon as possible in mind, identified two options to increase the percentage coverage of deployed DMCs in testing:

Either;

- Add additional DMCs into SIT which would adversely impact the completion timescales of SIT for IOC.

Or;

- Establish a new testing service, namely DMCT, to support testing of additional DMCs and allow IOC SIT to complete in a timely manner.

The purpose of SIT is to demonstrate that the integrated DCC solution works as intended. DCC considers that this objective can still be achieved by continuing to test the 4 DMCs that were originally selected. Extending SIT to include additional DMCs risks delaying the enrolment start point for all DMCs, and thus in DCC's opinion would not meet the objective set down in the SMETS1 SVTAD.

DCC have concluded therefore that the overall SMETS1 objectives are best achieved by establishing the DMCT testing service. The DMCT testing service will facilitate the maximum enrolment of SMETS1 DMCs as soon as reasonably practicable, and it will test the interoperability of DMCs with the Modified DCC Total System by allowing SMETS1 Service Requests (SRs) to be run against the DMC that is under test. DCC anticipate that, where successful, testing of a DMC will take approximately 3 days from the installation of the DMC in the Test Lab.

Maintaining the current choice of DMCs in SIT will, subject to their satisfactory testing, enable those DMCs to be added to the list of Eligible Product Combinations, and thus be eligible for enrolment, from May 2019.

The intention is that the rights and obligations related to DMCT will be subject of a further consultation of the SMETS1 SVTAD that will be initiated early in 2019 to incorporate DMCT.

## 4 Consultation question

DCC is seeking views on the following consultation question:

*Do you agree with rationale used and therefore the DMCs selected for SMETS1 IOC SIT?*

**The closing date for responses to this consultation is 18 January 2019.**

## 5 How to respond

Please provide responses by 17:00 18 January 2019 to DCC at [consultations@smartdcc.co.uk](mailto:consultations@smartdcc.co.uk). If you have any questions about the consultation documents, please contact Thomas Burke at [thomas.burke@smartdcc.co.uk](mailto:thomas.burke@smartdcc.co.uk).

Consultation responses may be published on our website [www.smartdcc.co.uk](http://www.smartdcc.co.uk). Please state whether all, or any part, of your consultation response is confidential. Please note that responses in their entirety (including any text marked confidential) may be made available to the Department Business, Energy and Industrial Strategy (BEIS) and the Gas and Electricity Markets Authority (the Authority). Information provided to BEIS or the Authority, including personal information, may be subject to publication or disclosure in accordance with the access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 1998 and the Environmental Information Regulations 2004). If BEIS or the Authority receive a request for disclosure of the information they will take full account of your explanation (to the extent provided to them), but [we/they] cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.