

# Conclusions on the SMETS1 FOC SIT: Proposed DMC Selection and Rationale



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# 1 Purpose

Consistent with the requirements in Clause 13 of Appendix AK of the SEC (SMETS1 SVTAD), DCC consulted on the SMETS1 Final Operating Capability (FOC) Migration Testing (MT) and SIT DMC Selection and Rationale in October 2019. This was done via a DCC issued consultation (available via <https://www.smartdcc.co.uk/customer-hub/consultations/smets1-foc-device-model-combination-consultation/>) between 13 September 2019 to 4 October 2019. This conclusions document presents:

- an overview of the responses received
- DCC's views on the responses received, and
- DCC's final selection decision.

The consultation process has not impacted on the choice of Device Model Combinations (DMC) proposed to be selected for Migration Testing (MT) and System Integration Testing (SIT); there were no concerns raised by any of the respondents with regard to the selected DMCs. DCC has decided that the DMCs set out in Table 1 will be tested in FOC SIT.

**Table 1 – DMCs selected for FOC SIT (PPCL V2.13)**

	Landis+Gyr	Landis+Gyr	Landis+Gyr	Landis+Gyr	Landis+Gyr
<b>PPC ID</b>	DMC-1	DMC-2	DMC-3	DMC-4	DMC-5
<b>Fuel Type</b>	DF	DF	DF	DF	DF
<b>GSME Model</b>	G370	G470 (MK1)	G370	G470 (MK2)	G470 (MK1)
<b>GSME F/W</b>	03.00.01.61	03.02.01.63	03.00.01.61	03.03.01.61	03.02.01.68
<b>ESME Model</b>	E470 (MK1)	E470 (MK1)	E470 (MK1)	E470 (MK2)	E470 (MK1)
<b>ESME F/W</b>	23.07.01.00	23.07.01.00	23.07.01.00	30.00.07.06	23.07.01.00
<b>CH Model</b>	SEAP-2000-V	SEAP-2000-V	SEAP-2001-V	SEAP-2001-V	SEAP-2001-V
<b>CH F/W</b>	2.1.12	2.1.12	2.2.7	2.2.8	2.2.8

	Landis+Gyr	Landis+Gyr	Landis+Gyr	Landis+Gyr	Landis+Gyr
<b>SMETS 1 PPMID Model</b>	PCK-BB-001	PCK-BB-001	PCK-BB-001	PCK-BB-001	DUET II
<b>SMETS 1 PPMID F/W</b>	2.2.1.9.0	2.2.1.9.0	2.2.1.9.0	2.7.1.9.0	2.0.1.9.61

## 2 Background

In the initial stages of the smart meter roll-out across Great Britain, several energy suppliers installed first generation smart meters (known as SMETS1 Devices) in consumers' homes. They are supported by a variety of 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.

There are important shared benefits for industry and consumers from the enrolment of SMETS1 Devices into DCC's service; particularly the ability for such customers to maintain smart services following any decision to switch suppliers. DCC is therefore developing a regime to facilitate the migration of SMETS1 devices into its data and communications service.

There are several hundred SMETS1 Device Model Combinations (DMCs) in use today. These range from DMCs where there are hundreds of thousands of metering systems in use, to DMCs where there are below ten. The SMETS1 FOC supports Landis+Gyr meters and is served by three Smart Metering Service Operators (SMSOs). The DMCs selected for MT and SIT are served by SMSO-1 and SMSO-2. This paper does not consider SMSO-3 at this point. Further considerations with regards to SMSO-3 and DMC selection will be communicated at a later date.

At present, EDM1 devices are under assessment, and are outside of the scope for the FOC consultation paper and this Conclusions document.

There is a requirement for an upgrade to the Electricity Smart Meter (ESME) firmware (F/W) to support operation with the DCC Dual Control Organisation (DCO) prior to Migration. As this F/W is currently under development, the final version number could not be included in the consultation. Additionally, should this firmware require subsequent changes due to issues arising when testing interoperability with the DCC solution, DCC will have no choice but to use a replacement firmware. DCC has included within the table above the version of the ESME firmware that it is starting testing with. The final MT and SIT End of Cycle (EOC) and System Regression tests required to meet the MT and SIT exit criteria will be executed on the final release version of ESME F/W. The DCC issued a consultation on the SMETS1 SVTAD 1.4 in August 2019, which included a new clause

13.11 intended to address this matter. However, a subsequent alternative set of changes to Clause 13 were proposed instead of the suggested clause 13.11. This alternative proposed set of changes to Clause 13 stated that DCC would select an ESME F/W that it considers will successfully interoperate with the DCC systems, and that the SIT DMC selection consultation did not apply to the ESME. The alternative proposed set of changes to Clause 13 were included as part of the consultation on FOC DMC selection and was concluded within the Alignment of MT/SIT conclusion document<sup>1</sup> which was published on 30 October 2019. The SEC was updated on 4 November 2019.

DCC selected five DMCs currently operated by two SMSOs for Migration Testing (MT) and SIT.

In addition to testing in MT and SIT, DCC is introducing a new DMC testing service, Device Model Combination Testing (DMCT<sup>2</sup>). DMCT will provide an appropriate level of assurance such that additional devices that will be migrated from SMSO 1 and SMSO 2 that have not been tested in MT and SIT are interoperable, and given our understanding of the current upgrade plans, the combination of MT, SIT and DMCT will deliver extensive coverage of DMCs to be enrolled to the DCC service capability to enrol them shortly after FOC.

In parallel, Suppliers continue to have the opportunity to upgrade their F/W on their DMCs to those versions successfully taken through FOC SIT or subsequently to the versions successfully taken through DMCT and approved to the Eligible Product Combinations List (EPCL).

DCC have determined that the DMCs selected and the rationale underpinning the selection remain appropriate, and that the responses to the consultation broadly support the selection.

### 3 Responses Received

The October 2019 consultation asked a question regarding the agreement of the rationale and DMCs selected, and DCC received input from five respondents across the sector, including Installing Suppliers.

In summary, three of the five respondents agreed the rationale, with the other respondents not expressing a formal view. No respondents rejected the selection. Two respondents had comments or questions on the general programme, which are grouped together and answered below.

There were two further questions included within the SMETS1 FOC DMC Selection and Rationale consultation in relation to the attachment SMETS1 SVTAD 1.4a and proposed amendments to Clause 13. These were concluded within the Alignment of MT/SIT conclusion document<sup>3</sup> which was published on 30 October 2019. The SEC was updated on 4 November 2019.

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<sup>1</sup> <https://www.smartdcc.co.uk/customer-hub/consultations/dcc-responses/dcc-conclusions-on-smets1-consultation-alignment-of-migration-testing-and-system-integration-testing/>

<sup>2</sup> <https://www.smartdcc.co.uk/customer-hub/consultations/dcc-consultation-on-changes-to-the-sec-variation-test-approach-document-svtad-and-the-mtad-migration-test-approach-document-to-support-testing-of-device-model-combinations-dmcs/>

<sup>3</sup> <https://www.smartdcc.co.uk/customer-hub/consultations/dcc-responses/dcc-conclusions-on-smets1-consultation-alignment-of-migration-testing-and-system-integration-testing/>

### 3.1 DMCT Coverage and Equivalence

Two respondents had questions surrounding the DMCT process. As highlighted above, the DCC has consulted on an update to Appendix AK version 1.3 of the Smart Energy Code (SEC) providing details of the DMCT process and how it will be run. Additionally, further updates to Clause 13 of Appendix AK were consulted on during this consultation.

One respondent suggested that the combined DMCs across all cohorts will place a considerable load on DMCT and that this would have to be managed carefully to ensure that overall enrolment and adoption deadlines were met. DCC considers utilising DMCT for other DMCs that comprise SMETS1 Installations that will migrate from SMSO1 and SMSO2 to be a more efficient approach than SIT and this in turn will facilitate enabling smart metering systems to be enrolled as soon as practicable and meeting programme targets and deadlines. This is due to the test pack that is required to be executed against each DMC in MT and SIT being much larger than DMCT as there are tests that involve the devices but are system level tests. Additionally, subject to the outcome of the SMETS1 SVTAD consultation, substantively equivalent DMCs may be added to the EPCL without further testing. DCC intend to have the substantive equivalence process for DMCs that fall within the scope of FOC agreed in advance of FOC MT and SIT completion, so that additional DMCs can be added quickly once the Modified DCC Total System is proven.

One respondent sought confirmation that the final ESME FW version, once approved by all parties, would be added to the FOC SIT DMC Pending Product Combinations List (PPCL). As previously outlined, there is a requirement for a F/W upgrade for the ESME. As the final version of ESME F/W that will exit SIT cannot be predicted, the current PPCL shows the ESME F/W version that will be used for SIT entry. The PPCL will be updated with the final version of the ESME F/W following the final MT and SIT End of Cycle and system regression tests required to meet the MT and SIT exit criteria being executed on the final version of the ESME F/W. Once the required testing and exit criteria have been passed, the DMCs will also be added to the EPC, subject to approval by BEIS.

One respondent sought confirmation that they could apply the DMCT process consulted on as part of the SMETS1 SVTAD updates, in order to add further DMCs which could be considered as substantively equivalent to those completing FOC SIT to the EPCL. The consultation on SMETS1 SVTAD changes to incorporate DMCT was concluded on 23 October 2019. The SEC was updated on 25 October 2019. Section 20.6 outlines DCC considerations when assessing proposed DMCs including whether the proposed DMC is considered to be substantively equivalent. DCC intend to have the substantive equivalence process for DMCs that fall within the scope of FOC agreed in advance of FOC MT and SIT completion, so that additional DMCs can be added quickly once the DCC total system is proven.

### 3.2 EDM I

One of the respondents expressed concerns on the outstanding decision will be reached regarding the inclusion of EDM I SMETS1 devices. DCC has an ongoing collaboration with EDM I to fully assess their devices for suitability for Enrolment and Adoption. DCC are conscious of the pressing timeframes and has intensified the assessment activities in order to provide an update to BEIS, with the technical and cost evidence it needs to undertake an assessment on whether DCC should offer EDM I an enrolment service.

### 3.3 Regression Test Approach and Timescales

One of the respondents raised concerns regarding the approach to regression testing should there be a need to introduce a new ESME FW after SIT has commenced. An attachment with proposed amendments to SMETS1 SVTAD Clause 13 were included as part of the FOC SIT DMC selection consultation; these amendments better accommodate the approach whereby variable ESME firmware within the FOC DMCs is permitted to support defect fixes without having to go through the device selection consultation process again. The FOC Depth and Breadth documents additionally describe how this situation will be managed. Should a new F/W version be required and delivered during SIT, an impact analysis will be carried out, with any affected Business Scenarios impacted by the fix being retested on the new F/W and additional targeted testing if required. The scope of proposed testing will need to be agreed with the SEC Panel's Testing Advisory Group (TAG) in advance, and if agreement cannot be reached with TAG, the matter will be referred to the Secretary of State for resolution. If the new F/W versions is introduced during End Of Cycle (EOC) testing, then additional EOC runs will be required for the new F/W.

One respondent wanted to understand whether additional timelines had been factored into the testing to ensure that the device changes will work. There have been cross-party reviews of the FOC Business Scenarios within the project, along with presentations to TAG to allow wider visibility and feedback. Additionally, the FOC Depth and Breadth documents provide greater detail on the test approach and coverage. These documents have been subject to reviews and have been approved by the SEC Panel's TAG. DCC believes that this collaborative approach has allowed test activities to be identified that will provide evidence that the device changes will work in DCC systems. As such, the Joint Implementation Plan (JIP) milestones accommodate the testing required to ensure that the device changes work.

One respondent wanted to understand the assessment criteria that DCC would use to determine the selected ESME firmware. DCC's approach to assessment when changing the ESME firmware will be consistent with the objectives in Clause 13.2 of the SMETS1 SVTAD. As set out in the consultation document DCC will be selecting firmware that interoperates with the DCC systems.

### 3.4 SVTAD Clause 13 consultation

The responses to Q2 and Q3 have been addressed in the MT/SIT conclusions document, which has been issued on 30 October 2019.

The SVTAD V1.4 has been re-designated on 4 November 2019.

## 4 Next Steps

As per Clause 13.41 of Appendix AK of the SEC, there is a 10 Working Day period within which a Supplier Party may disagree with the DCC's decision on which DMC's are selected to use for testing in SIT and may refer the matter to the Secretary of State.

Appeals should be sent to: [smets1\\_appeals@beis.gov.uk](mailto:smets1_appeals@beis.gov.uk).

If you have any questions about this conclusion document, please contact [consultations@smartdcc.co.uk](mailto:consultations@smartdcc.co.uk).