

SMETS1 Conclusions on regulatory changes for SMETS1 Uplift 1.2

DCC Conclusions and Report to Secretary of State on changes to the DCC User Interface Specification (DUIS), the SMETS1 Transition and Migration Approach Document (TMAD), the Service Request Processing Document (SRPD) and the SMETS 1 Supporting Requirements (S1SR) to support the SMETS1 Uplift 1.2.

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1. Introduction and Context

The detailed technical and procedural requirements of the migration approach for SMETS1 are set out in the SMETS1 Transition and Migration Approach Document (TMAD). The current TMAD (version AL 7.0) covers requirements for the IOC, MOC (MDS), and MOC (Secure) for SMETS1 Services. Further changes to support the FOC capability are planned and there has been a separate consultation on these TMAD changes. The SMETS 1 Supporting Requirements (S1SR) describes supplementary rules for how the DCC will process SMETS1 Service Requests / Service Reference Variants (SRs / SRVs) and includes the accommodation of behaviours that are specific to particular SMETS1 Device Models. The DCC User Interface Specification (DUIS) provides technical details regarding the DCC's User Interface. The Service Request Processing Document (SRPD) describes how the DCC systems handle Service Requests.

The following documents are included in the Smart Energy Code¹ (SEC) as appendices:

- DUIS is Appendix AD and the latest version (3.1) was included in the SEC on 29 November 2019;
- SRPD is Appendix AB and the latest version (3.0) was included in the SEC on the 6 May 2020;
- TMAD is Appendix AL and the latest version (7.0) was included in the SEC on 18 September 2020; and
- S1SR is Appendix AM and the latest version was included (4.0) in the SEC on 24 July 2020.

On 6 August 2020, DCC issued a consultation on changes to these SEC Appendices to provide an incremental set of improvements and efficiencies to DCC's SMETS1 service.

This document considers responses to this consultation consistent with the regulatory requirements for revising the DUIS, SRPD, TMAD, and S1SR.

2. Stakeholder Engagement

This section details DCC's stakeholder engagement that has taken place in relation to the proposed revisions to the DUIS, SRPD, TMAD, and S1SR.

On 6 August 2020, DCC published the consultation document titled '[Regulatory changes for SMETS1 Uplift 1.2 – Consultation Document](#)' on the DCC Website and DCC's Service Desk also emailed stakeholders to notify them of its publication.

The scope of the consultation covered the following matters:

- [SMETS1 Transition and Migration Approach Document AL 6.1U draft](#);
- [SMETS 1 Supporting Requirements AM4.4](#);
- [Annex A of SMETS 1 Supporting Requirements AM4.4 – Device Model Variations to Equivalent Steps Matrix \(DMVES\)](#);

¹ <https://smartenergycodecompany.co.uk/the-smart-energy-code-2/>.

- [DCC User Interface Specification 3.1 \[Designation Date\]](#);
- [Service Request Processing Document AM2.1](#); and
- draft text and proposed timescale for the Secretary of State’s direction for the re-designation of the DUIS, SRPD, TMAD, and S1SR.

Stakeholders were invited to respond by 16:00 on Thursday 3 September 2020 using a response template that was provided as part of the consultation.

3. Consultation Questions & Respondents

The [SMETS1 Consultation – Uplift 1.2 - Response Template](#) presented the following consultation questions as set out in Table 1.

Number	Consultation Question
U1.2 Q1	Do you support the proposal for DCC to provide the revised engineering menu PIN to the Installing Supplier? Do you have any detailed comments on the relevant changes to the legal drafting? Please provide a rationale for your views.
U1.2 Q2	Do you support the proposal for amending the validation of MPRNs to account for leading zeros for IOC? Do you have any detailed comments on the relevant changes to the legal drafting? Please provide a rationale for your views.
U1.2 Q3	Do you support the proposal for firmware updates of SMETS1 PPMIDs? Do you have any detailed comments on the relevant changes to the legal drafting? Please provide a rationale for your views.
U1.2 Q4	Do you agree with the proposed re-designation date for Uplift 1.2 of Tuesday 29 September 2020 (or, if necessary, as soon as reasonably practicable within one month thereafter) for the updates to the document set using draft notification at Attachment 1?

Table 1 – Consultation Questions

DCC received five written responses to this consultation which were provided to the Secretary of State once the consultation had closed.

4. Analysis of Responses

DCC has analysed the feedback provided and views of stakeholders. Subject matter experts within DCC have reviewed every response. Where appropriate, DCC has engaged with respondents to discuss major areas of disagreement to understand if an agreement may be reached.

DCC has structured the analysis of responses by question. Thus, this section presents DCC’s analysis by question in several separate subsections; with each structured as:

- an overview of the responses on the topic; and

- areas where DCC disagrees with the view presented by respondents, as the regulation requirements require DCC to report on this.

4.1. Non-randomisation of PINs (U1.2 Q1)

DCC sought views on proposals to amend the TMAD asking ***“Do you support the proposal for DCC to provide the revised engineering menu PIN to the Installing Supplier? Do you have any detailed comments on the relevant changes to the legal drafting? Please provide a rationale for your views.”***.

4.1.1. Respondent View

Four respondents provided a response to this question and one respondent provided a ‘nil’ response to this question.

Three respondents supported the proposal as set out in Section 1.2 of the consultation document.

One respondent didn’t express a view either for or against the proposed change to the TMAD.

Two respondents (including the respondent that didn’t express a view either for or against the proposal) highlighted that DCC’s proposal didn’t address the entire issue of the availability of such PINs across industry. DCC agrees that these proposals do not consider the wider issue of access to such data; the proposed changes to the TMAD were only designed to address the specific issue where the Installing Supplier incorrectly lost access to the engineering menu PIN² as a result of the migration process. These proposals were not intended to address the wider problem raised by the respondents which is outside the remit of the TMAD.

4.1.2. Areas of Disagreement

Within the scope of the proposal, there were no areas of disagreement.

4.2. MPRN Validation for Leading Zeros (U1.2 Q2)

DCC sought views on proposals to amend the TMAD asking ***“Do you support the proposal for amending the validation of MPRNs to account for leading zeros for IOC? Do you have any detailed comments on the relevant changes to the legal drafting? Please provide a rationale for your views.”***.

4.2.1. Respondent View

Four respondents provided a response to this question and one respondent provided a ‘nil’ response to this question.

Four respondents supported the proposal as set out in Section 2.2 of the consultation document.

4.2.2. Areas of Disagreement

There were no areas of disagreement.

² NB Clause 13.1 of the SMETS1 Supporting Requirements formally described the engineering menu PIN as ‘a PIN for functionality not meant for use by Energy Consumers’.

4.3. PPMID Firmware Upgrade (U1.2 Q3)

DCC sought views on proposals to amend the SRPD, DUIS and S1SR asking ***“Do you support the proposal for firmware updates of SMETS1 PPMIDs? Do you have any detailed comments on the relevant changes to the legal drafting? Please provide a rationale for your views.”***

4.3.1. Respondent View

All five respondents provided a response to this question.

All five respondents supported the proposal as set out in Section 2.3 of the consultation document.

One respondent sought clarity on why the proposals for PPMID Firmware Upgrade excluded FOC as set out in the consultation document. The proposal for the implementation of this functionality for FOC are included as part of the JIP change request and will be addressed as part of those conclusions. In addition, DCC has included an amendment to the S1SR and DUIS to exclude the PPMID Firmware Upgrade changes for the FOC GroupIDs ('EA' and 'EB'). However, should the conclusion of the JIP change request process change the proposal that PPMID Firmware Upgrade is out of scope for the initial FOC functionality, the DCC acknowledges that it will need to send a revised version of DUIS and the S1SR to the Secretary of State prior to re-designation. This JIP CR process is due to complete on 8 October 2020 at the SMDG meeting, and DCC notes that the Secretary of State has indicated that any re-designation on its part to support SMETS1 Uplift 1.2 would take place once the Transition Tool running has completed (see Section 7.1 below for details).

One respondent highlighted that the inclusion of firmware upgrade functionality for PPMIDs was important as otherwise PPMIDs may become outdated once the SMETS1 Installation has been Migrated. This respondent also proposed a further change that could be made to the regime for PPMID firmware updates in the circumstances of split supply SMETS1 Installations to provide for improved information to the Gas Supplier following enrolment. This respondent also suggested that the Gas Supplier be given the right to upgrade PPMID firmware and also be notified prior to any deployment of such a firmware upgrade by the Electricity Supplier to allow for its own testing. DCC notes that the approach to PPMID firmware upgrade in SMETS1 Uplift 1.2 is based on extending the regime for SMETS1 Communications Hub firmware upgrades which makes the Electricity Supplier responsible for the Communications Hub. This arrangement for Communications Hub firmware upgrades was developed following stakeholder engagement / consultation. The rationale for this allocation of responsibility is that there is a need to ensure that, at all times, a Supplier Party has the right to upgrade the firmware. The decision to vest the responsibility on the Electricity Supplier is because there is always an Electricity Supplier at premises where there is SMETS1 Communications Hub. Providing rights to upgrade PPMID firmware to the Gas Supplier, in addition to the Electricity Supplier, is not considered appropriate as it would introduce a range of additional complexity to manage / coordinate a situation where both the Electricity Supplier and the Gas Supplier could update the PPMID firmware at the same time. Furthermore, a requirement on the Electricity Supplier to provide additional information to the Gas Supplier regarding potential PPMID Firmware Updates is difficult as the Electricity Supplier can't readily identify the Gas Supplier. Given that advance notification can't be provided, DCC considers that the advance testing requirement would therefore be of no use as the Gas Supplier would have no prior knowledge of the firmware upgrade.

One respondent sought clarity on the proposed changes to DUIS and whether they would be forced to adopt the new versions. DCC can confirm that this change will not force users to adopt a new version of the DUIS unless they intend to use PPMID firmware functionality and it should be noted that the DUIS schema is unchanged.

4.3.2. Areas of Disagreement

There were no areas of disagreement.

4.4. Secretary of State Regulatory Change (U1.2 Q4)

DCC sought views on the planned date for the Secretary of State re-designating the TMAD, S1SR, SRPD, and DUIS asking ***“Do you agree with the proposed re-designation date for Uplift 1.2 of Tuesday 29 September 2020 (or, if necessary, as soon as reasonably practicable within one month thereafter) for the updates to the document set using draft notification at Attachment 1?”***.

4.4.1. Respondent View

Four respondents supported the proposal as set out in Section 4 of the consultation document.

4.4.2. Areas of Disagreement

There were no areas of disagreement.

5. Summary of Drafting Changes

The consultation process gave rise to a limited number of drafting changes (compared to the consultation versions) which are detailed in this section.

The consultation was based on TMAD AL 6.0, S1SR AM 4.3 draft, and SRPD AB 2.0. On 18 September 2020, TMAD AL 7.0 was re-designated. However, the changes within the consultation draft S1SR AM 4.3 are not yet concluded and the existing version is S1SR AM 4.0. Also, the latest version of SRPD is AB 3.0. Thus, this conclusion is based on TMAD AL 7.0, S1SR AM 4.0 and SRPD AB 3.0.

There are a few minor drafting changes within the legal drafting to amend typographical errors and improve clarity. Additionally, an overview of key changes is presented in Table 2 below. Please note that the Clause references in Table 2 are based on conclusion versions attached to this document.

No.	Reference	Description and Rationale for Change
1	TMAD Clause 3.25	Include <i>‘Where GroupID = “CA”;</i> to the start of the clause to confirm this requirement is only for IOC Elster Gas Meters as set out in the consultation document.
2	TMAD Clause 3.25	The phrase <i>‘engineering menu PIN’</i> as been replaced with <i>‘a PIN for functionality not meant for use by Energy Consumers’</i> to align to the drafting in Clause 13.1 of the SMETS1 Supporting Requirements.

No.	Reference	Description and Rationale for Change
3	S1SR Clause 12.2	The words ' (Anomaly Detection) ' were included to improve clarity of the Clause.
4	S1SR Table 3	Correction for omission of GPF on the row for SRV 11.2.
5	DUIS Clause 1.4.7.13 Clause 1.4.7.13A Clause 1.4.7.134 S1SR Clause 17.58A Clause 17.58B	Amended to confirm the PPMID Upgrade Firmware requirement excludes FOC as set out in the consultation document. A definition of GroupID included in S1SR and DUIS.

Table 2 – Drafting Changes

6. Conclusions

DCC is confident that the versions of the TMAD, S1SR, SRPD, and DUIS submitted to the Secretary of State reflects the requirements for document submission.

DCC is of the opinion that it has had appropriate consultation with industry regarding these changes to the TMAD, S1SR, SRPD, and DUIS.

DCC has, where necessary, addressed the comments that have been received from industry and where appropriate has sought additional feedback from respondents. DCC does not believe that the views expressed result in fundamental amendments to the TMAD, S1SR, SRPD, and DUIS and as such further consultation is neither necessary nor appropriate.

It is DCC's view that it has met its SEC obligations.

The TMAD, S1SR, SRPD, and DUIS revisions are in line with the overall solution design for the SMETS1 Service and other relevant documents.

DCC considers that:

- the revised TMAD, S1SR, SRPD, and DUIS are defined to a sufficient level of detail for re-designation into the SEC;
- the revised TMAD, S1SR, SRPD, and DUIS provide an overarching framework which sets out clearly and unambiguously parties' rights and obligations which are consistent / and aligned with the rest of the SEC requirements in relation to SMETS1 Services; and
- the revised TMAD, S1SR, SRPD, and DUIS are materially complete, and the content is technically accurate.

In summary, DCC considers that the revised TMAD, S1SR, SRPD, and DUIS are fit for purpose.

7. Implementation Update

This section sets out a few implementation details regarding SMETS1 Uplift 1.2 that DCC considers are of interest to stakeholders.

7.1. DCO Key Packages

To support Critical Commands being sent to a device, the DCO maintains a package of security keys for each device in the installation. With the addition of the capability to upgrade the firmware on a PPMID this key package needs to be extended to include the PPMID security keys. For any PPMID migrated after the Uplift 1.2 changes have been made to DCC's system, this is done via the Join commands that are executed as part of the commissioning process. However, for those sites that have already been migrated DCC needs to explicitly update the DCO key packages to include the PPMID security keys. For the initial period immediately following DCC's system being updated, DCC will be upgrading the DCO key packages on all previously migrated sites.

Therefore, if an Activate Firmware Service Request is sent to a device that has not yet had its DCO key package updated, the request to upgrade the PPMID firmware will be rejected. Given this situation, re-designation of the changes prior to the DCO key package update would mean that DCC would be non-compliant with the SEC as the upgrade to PPMID firmware would be rejected. Thus, DCC expects that the Secretary of State will re-designate these changes once the DCO key packages are updated. DCC will be including this behaviour in the Use of DUIS Guidance note.

7.2. Auxiliary Load Implications

During Regression testing DCC became aware of an issue regarding Auxiliary Load and the S1SP systems for the IOC cohort. When a two-rate tariff with identical prices is applied to a device that is connected for the IOC S1SP it would result in the Auxiliary Load switch being closed. This will be addressed in DCC's November 2020 maintenance release where the behaviour will be that only where prices are different should the switch be closed. DCC will be including this behaviour in the Use of DUIS Guidance note.

7.3. PPMID SRVs for FOC

The SRVs to update/activate firmware on an FOC PPMID will be processed by the DSP but will not be processed by the S1SP. A description of the message that will be returned in this scenario will form part of an update to the SEC Subsidiary Documents as part of FOC live.

7.4. PPMID for IOC – SRV 11.2

During the testing of the software changes for SMETS1 Uplift 1.2 a defect in the solution was identified; for SMETS1 Installations related to IOC it is not currently possible to read the firmware for a PPMID. This defect means that the correct response will not be received for SRV 11.2 related to IOC, instead an alert will be returned. This defect will be fixed within DCC's November 2020 maintenance release and will be included in the Use of DUIS Guidance note.

8. Next Steps

DCC has submitted this conclusions report to the Secretary of State on 25 September 2020.

Following the submission of TMAD, S1SR, SRPD, and DUIS to the Secretary of State, DCC expects the Secretary of State to make a decision on whether and when to re-designate the revised TMAD, S1SR, SRPD, and DUIS into the regulatory framework. Given this consultation process DCC notes the earliest date that these changes could be re-designated is 29 September 2020 and the latest date is 29 October 2020 without requiring a further consultation on the designation date. DCC expects that re-designations will take place once DCC has finished upgrading the DCO key packages as set out in Sub-Section 0 above.

9. Attachments

Attachment	Title
1.	TMAD AL 8.0 draft - clean
2.	TMAD AL 8.0 draft - delta against current version
3.	TMAD AL 8.0 draft - delta against current consultation version
4.	S1SR AM 5.0 draft - clean
5.	S1SR AM 5.0 draft - delta against current version
6.	S1SR AM 5.0 draft - delta against consultation version
7.	Annex A of S1SR AM 5.0 draft - DMVES
8.	DUIS 3.1 [Designation Date] – clean
9.	DUIS 3.1 [Designation Date] – delta against current version
10.	DUIS 3.1 [Designation Date] – delta against consultation version
11.	SRPD AM 4.0 draft - delta against current version
12.	SRPD AM 4.0 draft - delta against current version
13.	SRPD AM 4.0 draft - delta against consultation version

Table 3 - Attachments