



**SMETS1 regulatory changes to the TMAD -  
SMETS1 Device Security Testing and Notification  
Periods – Conclusions Document**

**DCC Conclusions and Report to Secretary of State on  
changes to the SMETS1 Transition and Migration  
Approach Document (TMAD) to support the security  
testing for SMETS1 Devices and change to notification  
periods.**

**Filename: CON\_DST&NP\_conclusion\_issued**

**Date: 4 June 2020**

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**Classification: DCC Public**

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# 1. Introduction and Context

The detailed technical and procedural requirements of the migration approach are set out in the SMETS1 Transition and Migration Approach Document (TMAD). The TMAD is Appendix AL of the Smart Energy Code (SEC<sup>1</sup>) and the latest version was included as AL 4.0 on 6 May 2020.

On 28 April 2020, DCC issued a consultation on changes to the TMAD covering:

- an approach to the security testing of SMETS1 Devices; and
- for SMETS1 Installations containing Dormant Devices, changes to the notification period for the upgrade of firmware / application of configuration as well as prior notice for Migration.

This document considers responses to this consultation consistent with the regulatory requirements for revising the TMAD.

## 2. Stakeholder Engagement

This section details DCC's stakeholder engagement that has taken place in relation to the revisions to the TMAD.

On 28 April 2020, DCC published the consultation document titled '[SMETS1 Consultation on regulatory changes to the TMAD - SMETS1 Device Security Testing and Notification Periods – April 2020](#)' 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 V4.1 draft \(change marked against V4.0 draft\)](#); and
- draft text and proposed timescale for the Secretary of State's direction for the re-designation of the TMAD.

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

DCC has provided updates on SMETS1 Device Security Testing matters to the Security Sub-Committee on a number of occasions.

## 3. Consultation Questions & Respondents

The [SMETS1 Device Security Testing and Notification Periods - Response Template](#) presented three questions covering the consultation as presented in Table 1.

<sup>1</sup> The current SEC is available via the SECAS website - [www.smartenergycodecompany.co.uk/the-smart-energy-code-2/](http://www.smartenergycodecompany.co.uk/the-smart-energy-code-2/).

Number	Consultation Question
April 2020 TMAD Q1	Do you have any views on the proposals related to security testing for SMETS1 Devices? Do you have any detailed comments on the relevant changes to the legal drafting? Please provide a rationale for your views.
April 2020 TMAD Q2	Do you have any views on the proposals related to reducing notification periods related to Dormant Devices? Do you have any detailed comments on the relevant changes to the legal drafting? Please provide a rationale for your views.
April 2020 TMAD Q3	Do you agree with the proposed re-designation date of Friday 29 May 2020 (or, if necessary, as soon as reasonably practicable within one month thereafter) for the updates to the TMAD using draft notification at Attachment 1?

**Table 1 – Consultation Questions**

DCC received seven written responses to this consultation. A copy of every submission to the consultation was provided to the Secretary of State once the consultation had closed.

## 4. Analysis of Responses

DCC has analysed the feedback provided by each respondent. 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 consistent with Section N6.4 of the SEC.

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. SMETS1 Device Security Testing (April 2020 TMAD Q1)

DCC sought views on proposals for the security testing of SMETS1 Devices asking “***Do you have any views on the proposals related to security testing for SMETS1 Devices? 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

DCC received a response from all seven respondents on the proposal for provision of Device Security Testing in the TMAD:

- two respondents supported the proposal;
- three respondents did not express a view to either support or reject the proposal; and
- two respondents objected to the proposal.

DCC notes that respondents that supported the proposal stressed that this change would allow the appropriate risks to the DCC Total System to be identified and raised with BEIS.

One respondent suggested that these changes to the TMAD were not needed as there are existing obligations on Energy Suppliers covering this matter. DCC notes that responsibilities for ensuring that an Enrolled SMETS1 Smart Metering System is at all times secure remains with the Supplier Party in accordance with Supplier Licence Condition and SEC Section G. The consultation set out that SMETS1 Device Security Testing is focused on protecting the DCC Total System from risk and its conduct should not be interpreted as changing the underlying responsibilities which different SEC Parties may have in connection with security.

Three respondents suggested that the scoping document for SMETS1 Device Security Testing should be subject to wider consultation and distributed to impacted Energy Suppliers. Two of these respondents also were concerned that whilst the TMAD provides for outcomes from SMETS1 Device Security Testing to be reported to the Secretary of State, and copied to the Security Sub-Committee (SSC), the TMAD drafting does not provide details on outcomes / next steps.

One respondent was concerned that the outcome of SMETS1 Device Security Testing would be a new pre-requisite for Live Service Criteria submissions to the SEC Panel. DCC understands this concern and DCC does not envisage that the outcome of SMETS1 Device Security Testing would become an automatic pre-requisite for future Live Service Criteria submissions. This respondent would also like the TMAD to include a presumption that migrations would proceed (with any security issue to be addressed post migration i.e. fix forward) unless any security issue discovered is worsened by the migration process.

One respondent was concerned that the obligation to migrate set out in the Gas Supply Licence and Electricity Supply Licence were not considered within the scope of the consultation.

One respondent highlighted that the outcome of SMETS1 Device Security Testing might be the deployment of new firmware which has a time / cost impact. The consultation document set out that the completion of testing would be reporting to the Secretary of State and SSC; thus DCC would encourage any stakeholder with concerns on potential outcomes from SMETS1 Device and Security Testing to engage with BEIS and the SSC on these matters.

One respondent expressed concern regarding the time it may take DCC to procure and undertake SMETS1 Device Security Testing. In order to expedite SMETS1 Device Security Testing, DCC has been undertaking preparatory steps in parallel to this consultation. Thus, DCC will be able to commence SMETS1 Device Security Testing promptly if and when the TMAD is re-designated by the Secretary of State. Furthermore, this Device Security Testing will not impact any wider cohort testing for SMETS1 as it is entirely separate. Also, DCC has made some changes to the TMAD drafting to ensure that the scope is reflective of prior discussions of between DCC and the SSC which will allow matters to be expedited.

Two respondents highlighted that DCC should be mindful that device availability may be an issue for SMETS1 Device Security Testing as SMETS1 meters are no longer being manufactured at scale. DCC agrees that a pragmatic approach is needed for SMETS1 Device Security Testing given the limitations regarding device availability. DCC has previously explored this matter with the SSC and identified 8 (eight) DMC sets to form the basis of targeted for SMETS1 Device Security Testing. DCC has devices available to test as it will be using devices that have previously been used in SIT-

A. DCC will be engaging with Energy Suppliers for support to utilise these device sets if and when the TMAD is re-designated by the Secretary of State.

#### 4.1.2. Areas of Disagreement

The consultation document set out that the scope of SMETS1 Device Security Testing would be agreed between the SSC and DCC. The consultation document also noted that there has been prior engagement with the SSC on this topic. DCC does not consider it appropriate for the scope of SMETS1 Device Security Testing to be a 'public' consultation given the nature of such security matters and thus DCC remains convinced that the SSC is the appropriate forum for stakeholder engagement on scope. On the same basis, DCC does not consider it appropriate to publish the final scoping document.

The consultation document set out that DCC considered that specific additional negative security testing is required as part of demonstrating that the Modified DCC Total System remains secure. DCC does not believe it is prudent to rely solely on the existing obligations on Energy Suppliers.

The consultation document set out the completion of testing would be reported to the Secretary of State and SSC. Whilst, DCC understands the concerns related to potential delays in SMETS1 migration due to security issues and the proposal for a 'fix forward' principle in the TMAD. DCC does not however consider it prudent to prescribe potential outcomes in the SEC or include such a 'fix forward' commitment in the TMAD as not only can the level of risk to DCC Total System from any issue uncovered not be pre-empted there are also wider considerations such as economic efficiency which may mean the best outcome is to fix the issue pre-migration.

DCC is committed to supporting the secure and timely migration of SMETS1 Installations consistent with the timeframe set out in licence obligations on Energy Suppliers.

#### 4.2. Notification Periods (April 2020 TMAD Q2)

DCC sought views regarding changes to the notification period for the upgrade of firmware / application of configuration as well as prior notice for Migration regarding SMETS1 Installations containing Dormant Devices asking ***"Do you have any views on the proposals related to reducing notification periods related to Dormant Devices? 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

DCC received a response from all seven respondents on the proposal for provision to reduce notification periods in the TMAD:

- three respondents supported the proposal;
- one respondent did not express a view to either support or reject the proposal; and
- three respondents objected to elements of the proposal.

DCC notes that there was some explicit support and no objections to the proposal to change the notification period related to the upgrade of firmware / application of configuration regarding SMETS1 Installations containing Dormant Devices. On this basis, DCC considers it prudent to proceed to reduce the notification period from 15 working days to 5 Working Days for to the upgrade of firmware / application of configuration.

One of the respondents that expressed support also proposed that the 'take all reasonable steps' element of notification should be removed given the reduced time period; DCC accepts this to be a reasonable compromise and the revised drafting includes this amendment.

The objections raised were focused on the reduction in notification period prior to DCC commencing the Migration of SMETS1 Installations containing Dormant Devices. These respondents were concerned that that the proposed reduction in timeframe did not provide enough time (within the Energy Supply Businesses) to undertake the associated back office activities and proposed that DCC consider a degree of flexibility in this matter. One of these respondents also thought it would be helpful for DCC to provide forward forecasts for the planned Migrations of SMETS1 Installations containing Dormant Devices; DCC accepts such forecasts would be helpful and is working towards providing this during the summer of 2020. Two of these respondents thought a reduction to 10 Working Days would be acceptable as it would provide sufficient time for their internal processing. Given the range of views expressed, DCC concludes that the notification period for commencing the Migration of SMETS1 Installations containing Dormant Devices should remain at 15 days for migration with an amendment to allow DCC to mutually agree a shorter timeframe with each Energy Supplier where possible.

#### 4.2.2. Areas of Disagreement

There were no areas of disagreement.

### 4.3. Secretary of State Regulatory Change (April 2020 TMAD Q3)

DCC sought views on the Secretary of State re-designating the TMAD asking "***Do you agree with the proposed re-designation date of Friday 29 May 2020 (or, if necessary, as soon as reasonably practicable within one month thereafter) for the updates to the TMAD using draft notification at Attachment 1?***".

#### 4.3.1. Respondent View

DCC received a response from all seven respondents on the proposal for the Secretary of State to re-designate the TMAD:

- three respondents supported the proposal;
- one respondent did not express a view to either support or reject the proposal; and
- three respondents objected to the proposal.

One respondent sought assurance that there was sufficient time for DCC to adequately review the responses. DCC accepts that the timetable may appear limited, however, in setting the schedule DCC considered that it was appropriate given the magnitude of the changes proposed and thus DCC's ability to review the responses. DCC notes that it took slightly longer to conclude given the nature of responses received by DCC and the need to revert to certain respondents.

Those respondents objecting to re-designation did not express an objection to the date of set out in the question but rather objected to the subject matter consistent with their respective responses to the other questions within this consultation. Thus, DCC considers it appropriate to conclude promptly consistent with the proposal set out in the consultation document.

#### 4.3.2. Areas of Disagreement



There were no areas of disagreement with the date for re-designation.

## 5. Summary of Drafting Changes

The consultation process gave rise to a limited number of changes to the TMAD (compared to the consultation documentation) which are detailed in this section. There are a few minor drafting changes within the legal drafting to amend for typographical and referencing errors and improve clarity. Additionally, an overview of key changes to the TMAD are provided in Table 2 below for information. Please note that the Clause references in Table 2 are based on conclusion version attached to this document.

Drafting Reference	Description and Rationale for Change
Clause 2	Reference in definition of SMETS1 Device Security Testing corrected to be Clause 17.
Clause 4.29 and 4.30	Amended to reflect the approach of reducing the notice period to 5 Working Days for firmware and configuration changes and allowing further reductions to be agreed.
Clause 17.1 and 17.2	Reference to Clause 16.1 corrected to be Clause 17.
Clause 17.3	Amended to reference prior discussions / agreement between DCC and the Security Sub-Committee and ensure matters are progressed promptly.
Clause 17.4	Amended to restrict further changes in scope to be in line with prior agreement.
Clause 17.6	Amended to improve clarity i.e. that revisions will be agreed in the updated SMETS1 Device Security Testing Scope and Timetable Document and testing performed against the revised scope.
Clause 17.12	Amended so formally each final SMETS1 Device Security Testing Completion Report will submitted to the Security Sub-Committee as they agree the scope with a copy provided to the Secretary of State.

**Table 2 - Overview of Drafting Changes**

## 6. Conclusions

DCC is confident that the revised draft TMAD, 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.

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 and as such further consultation is neither necessary nor appropriate.



It is DCC's view that it has met its SEC obligation to consult with parties and to address the points raised and identify those comments that have not been resolved. DCC is of the view that it has met its regulatory obligation as set out in the SEC.

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

DCC considers that:

- the revised TMAD is defined to a sufficient level of detail for re-designation into the SEC;
- the revised TMAD provides 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 is materially complete, and the content is technically accurate.

In summary, DCC considers that the revised TMAD is fit for purpose.

## **7. Next Steps**

DCC submitted this conclusions report to the Secretary of State on the date of publication.

Following the submission of TMAD to the Secretary of State, DCC expects the Secretary of State to make a decision on whether and when to re-designate<sup>1</sup> the revised TMAD into the regulatory framework utilising the draft direction text as presented in Attachment 1 of this conclusions report.

## **8. Attachments**

- Attachment 1 – TMAD Draft Notification Text
- Attachment 2 - SMETS1 Transition and Migration Approach Document AL V4.1 draft (clean)
- Attachment 3 - SMETS1 Transition and Migration Approach Document AL V4.1 draft (change marked against current SEC version)
- Attachment 4 - SMETS1 Transition and Migration Approach Document AL V4.1 draft (change marked against consultation version)

<sup>1</sup> NB Based on this consultation process, the earliest date that the TMAD could be re-designated is 29 May 2020.

## **Attachment 1**

This attachment contains the text that BEIS plans to use for direction of changes to the TMAD.

### **TMAD Draft Direction Text**

*This direction is made for the purposes of the smart meter communication licences granted under the Electricity Act 1989 and the Gas Act 1986 (such licences being the "DCC Licence") and the Smart Energy Code designated by the Secretary of State pursuant to the DCC Licence (such code being the "SEC").*

*Words and expressions used in this direction shall be interpreted in accordance with Section A (Definitions and Interpretation) of the SEC.*

*Pursuant to Condition 22 of the DCC Licence and Section X5 (Incorporation of Certain Documents into this Code) of the SEC, the Secretary of State directs that, with effect from [DD MMM YYYY], the SMETS1 Transition and Migration Approach Document previously designated and incorporated into the SEC as Appendix AL is hereby re-designated and incorporated in the form set out in Annex [XX] to this direction.*

*For the avoidance of doubt such re-designation of the SMETS1 Transition and Migration Approach Document shall be without prejudice to anything done under the DCC Licence or the SEC on or after this document first being designated, or to the continuing effectiveness of anything done this document prior to its re-designation (which shall have effect as if done under the re-designated document).*

*This direction is also being notified to the SEC Administrator.*