MP160

'Certificate Signing Request forecasting'

Modification Report

Version 1.0

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About this document

This document is the final Modification Report. It sets out the background, issue, solution, impacts, costs, implementation approach and progression timetable for this modification, along with any relevant discussions, views and conclusions.

Contents

This document also has three annexes:

- **Annex A** contains the redlined changes to the Smart Energy Code (SEC) required to deliver the Proposed Solution.
- **Annex B** contains the Data Communications Company (DCC) User Guidance document that accompanies the proposed legal text changes.
- **Annex C** contains the full responses received to the Refinement Consultation.

Contact

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1. Summary

This proposal has been raised by Graeme Liggett from the DCC.

SEC Section L 'Smart Metering Key Infrastructure and DCC Key Infrastructure' currently requires each Party that is an Authorised Subscriber to provide the DCC each quarter with a forecast of the number of Certificate Signing Requests (CSRs) it expects to send in the following eight months. The forecasts contain a breakdown of the total number of CSRs for Device Certificates, including the issue of a single Device Certificate and ones that are batched together.

The DCC believes that the obligation on Users to provide these forecasts should be removed. There is sufficient capacity within the Smart Metering Key Infrastructure (SMKI) services to no longer require the CSR forecasting process except in the case when exceptional volumes of CSRs are to be sent in a given period by a SEC party.

The Proposed Solution is to amend SEC Section L to remove the requirement on Users to provide CSR forecasts except where exceptional volumes are expected. The new process is set out in a DCC Guidance Document. This modification will impact DCC Users and the DCC. There are no DCC costs to implement this modification. Implementation is targeted for the November 2022 SEC Release. This is a Self-Governance Modification.

2. Issue

What are the current arrangements?

SEC Parties utilise the SMKI and DCC Key Infrastructure (DCCKI) services described in SEC Section L to manage Organisational, Device and Infrastructure Key Infrastructure (IKI) Certificates. The SMKI service provides Certificates used for the means of establishing trusted and secured communications between Parties and smart metering Devices across the DCC network. The DCCKI service provides SEC Parties and Registration Data Providers with Certificates used to authenticate and secure access to DCC interfaces such as the DCC Gateway Connection, Self-Service Interface (SSI), the Registration Data Interface and the DCC User Interface.

SEC Parties that have completed the relevant SMKI and Repository Entry Process Tests and have access to the SMKI services are known as 'Authorised Subscribers'. SEC Sections L8.7-L8.12 currently set out the obligations for each Authorised Subscriber to the SMKI Services to provide the DCC with quarterly forecasts of the number of CSRs it expects to send in the following eight months.

The DCC provide a report to the SEC Panel setting out the aggregate number of CSRs by all Authorised Subscribers collectively during the month. This is also compared with forecasted numbers.

What is the issue?

CSR forecasting is resource-intensive for Users despite its low value to the DCC. This means that despite the effort each User puts in to complete each forecast, the benefit and value of the process is nugatory.

The DCC believes that the obligation on Users to provide these forecasts should be removed, as actual CSR requests are relatively stable and are restricted by the volume of assets a Party can install. The DCC carries enough data for this to be largely predictable. The DCC has also stated that there is significant headroom within the SMKI services to facilitate increases in CSRs being sent.

What is the impact this is having?

If nothing is changed, Service Users will continue to expend resources to submit CSR forecasts despite the value of the forecasts being minimal. The SMKI services carry significant headroom, measured in many months of CSRs, and are replenished every few weeks. Furthermore, there is no cost incurred in maintaining the current levels of additional headroom.

The time and effort taken to complete a CSR forecast by an Authorised Subscriber consumes DCC User resource. By removing the obligation to submit CSR forecasts, the Service User will be able to reallocate resources accordingly.

Impact on consumers

The issue has no impact on Consumers.

3. Solution

Proposed Solution

The Proposed Solution will remove the obligation for Authorised Subscribers to have to provide quarterly eight-month CSR forecasts to the DCC. The DCC has advised there is sufficient capacity within the SMKI services and there is no requirement for the quarterly CSR forecasting process. Instead, the DCC will produce its own forecasts internally. The DCC however, does require DCC Users to notify it where the User expects exceptional demand. ‘Exceptional demand’ is considered when an Authorised Subscriber is aware future requests will be over 150% of (50% above) their average CSRs sent each month. In these instances, the DCC requests that this information be sent in the relevant month by the relevant Authorised Subscriber.

Producing forecasts and reporting

The DCC will produce a single CSR forecast covering the following six months, and a single variance report each quarter covering the previous three months. This will be issued to the SEC Panel (or a delegated Sub-Committee) for review and comment. This single CSR forecast will account for CSRs to be sent in the following six months by both Parties and Service Providers. Historically, these separate Party and Service Provider forecasts were produced independently and then aggregated, but for efficiency a single forecast will be produced.

These reports will include:

1. A six-month forecast of the number of CSRs that Parties and Service Providers will (collectively) send in each of the six months following the end of the month in which such forecast is provided. This forecast will also report on the number of available CSRs

through the forecast period. This forecast report will set out and comment on expected future CSR volumes and will be published on SharePoint as a Portable Document Format (PDF) document.

2. A CSR forecast accuracy report that sets out the number of CSRs that Parties and Service Providers (collectively) sent during each of the previous three months. This will evidence the accuracy of previous forecasts and identify steps to improve future forecast accuracy. This variance report will review and comment on the variance between actual and forecast CSR volumes and will be published on SharePoint as a PDF document.

Each of these documents will be published on SharePoint and available to the Panel and all Users.

User input

SEC Parties will be asked to notify the DCC Service Desk via email to ServiceCentre@smartdcc.co.uk, where the number of Certificate Signing Requests sent in a month is expected to 50% or more above the average number of Certificate Signing Requests sent in each of the previous three months. Full details are set out in the DCC User Guidance document (Annex B).

4. Impacts

This section summarises the impacts that would arise from the implementation of this modification.

SEC Parties

SEC Party Categories impacted			
✓	Large Suppliers	✓	Small Suppliers
✓	Electricity Network Operators	✓	Gas Network Operators
✓	Other SEC Parties	✓	DCC

All DCC Users will be impacted as they will no longer have to provide quarterly eight-month CSR forecasts. This will result in resource requirements being reduced. SEC Parties will however have the option to provide input into the DCC forecasts in cases of exceptional demand.

DCC System

This modification has no impact on the DCC System.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Section L 'Smart Metering Key Infrastructure and DCC Key Infrastructure'

The changes to the SEC required to deliver the Proposed Solution can be found in Annex A.

Devices

This modification will have no impact on Devices.

Consumers

This modification will have no impact on Consumers.

Other industry Codes

This modification will have no impact on other industry Codes.

Greenhouse gas emissions

This modification will have no impact on greenhouse gas emissions.

5. Costs

DCC costs

There are no DCC System costs to implement this modification. Any costs associated with DCC providing resource will be accounted for through the DCC's price control.

SECAS costs

The estimated Smart Energy Code Administrator and Secretariat (SECAS) implementation costs to implement this modification is one day of effort, amounting to approximately £600. The activities needed to be undertaken for this are:

- Updating the SEC and releasing the new version to the industry.

SEC Party costs

All Refinement Consultation respondents stated they will not incur any costs as a result of this modification's implementation.

SEC
Smart Energy Code

6. Implementation approach

Approved implementation approach

The Change Sub-Committee (CSC) has agreed an implementation date of:

- **3 November 2022** (November 2022 SEC Release) if a decision to approve is received on or before 20 October 2022; or
- **23 February 2023** (February 2023 SEC Release) if a decision to approve is received after 20 October 2022 but on or before 9 February 2023.

The earliest Release this modification will be implemented in is the November 2022 SEC Release. This modification does not have any DCC System impacts so if a decision is received after the cut-off date, it will be implemented in the February 2023 SEC Release.

7. Assessment of the proposal

Observations on the issue

During the Development Stage, this proposal was presented to the Panel Sub-Committees. Each Sub-Committee agreed that the issue is clearly defined and were happy for the proposal to proceed to the Refinement Process. The Operations Group (OPSG) and the SMKI Policy Management Authority (PMA) raised no initial concerns with the Proposed Solution.

Views of the Change Sub-Committee

SECAS presented the proposal to the Change Sub-Committee (CSC) for initial comment in April 2021. CSC members commented that each quarterly forecast takes between 30 minutes to an hour to complete. It felt that there may be an issue regarding providing Users the desired level of accuracy as customers can now change Supplier easier and faster than before, and the volumes of customers changing Supplier could be difficult to forecast. This will be exacerbated when the Faster Switching Programme[1] goes live in 2022 which actively encourages customers to change Supplier.

A CSC member advised that, like [MP116 'Service Request Forecasting'], this modification will need to be supported by a DCC guidance document that sets out what is expected of Authorised Subscribers once the obligation to provide the forecasts has been removed. The member advised that this would need to be provided in advance of the modification proceeding to vote. This has been provided by the DCC and reviewed by the Working Group, and can be found in Annex B.

The proposal was presented at the CSC in May 2021 for final comments and recommendation. The CSC reiterated that the DCC guidance document must be reviewed by the Working Group and on this basis, was happy for the proposal to proceed to the Refinement Process.

[1] https://www.ofgem.gov.uk/electricity/retail-market/market-review-and-reform/smarter-markets-programme/switching-programme

Legal Text

The proposed changes to the SEC can be found in Annex A.

Solution Development

Working Group

The proposed solution, legal text and DCC guidance document were presented to the Working Group, which was asked for any feedback or additions which should be included.

The Working Group wanted further clarification in the drafted legal text to state exceeding 150% of the average number of CSRs for the past three months, instead of 50%. It also queried if this would affect Anomaly Detection Thresholds (ADTs), to which the Proposer confirmed that this proposal is related to CSRs and not to do with ADTs, which was covered in a separate modification (MP116 'Service Request Forecasting'). The Working Group acknowledged and noted this.

The Working Group members noted that this modification was aimed at removing the obligation to forecast CSRs, which does not necessarily mean less work for Authorised Subscribers, but as it removes an obligation, they were agreeable to it.

The Working Group requested clarification to ensure the DCC will perform all the forecasting reporting and the subscriber only needs to provide notification of exceptional usage. The Proposer confirmed that this was correct.

8. Case for change

Views against the General SEC Objectives

Proposer's views

The Proposer believes that MP160 better facilitates SEC Objectives (a)[2] and (b)[3]. This is due to the efficiencies the removal of the forecasting CSR process will deliver, with only exceptional demand CSR volumes needing flagging to the DCC. This aids the efficient provision, installation, operation, and interoperability of smart metering systems at energy consumers' premises and allows the DCC to comply with the objectives of the DCC licence while optimising DCC System capacity.

Industry views

Respondents to the Refinement Consultation felt that the modification better facilitates SEC Objectives (a) and (b) and agreed with the Proposer's rationale.

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[2] Facilitate the efficient provision, installation, operation and interoperability of smart metering systems at energy consumers' premises within Great Britain.

[3] Enable the DCC to comply at all times with the objectives of the DCC licence and to discharge the other obligations imposed upon it by the DCC licence.

Views against the consumer areas

Improved safety and reliability

This modification will have a neutral impact on safety and reliability of the smart metering systems.

Lower bills than would otherwise be the case

This modification will have a neutral impact on the cost of energy bills.

Reduced environmental damage

This modification will have a neutral impact on environmental damage.

Improved quality of service

This modification will free up time for the Authorised Subscribers, as the DCC has enough head room to handle the current load of CSRs, and only in exceptional demand periods will there be a need to report their quantity of CSRs to the DCC.

Benefits for society as a whole

This modification will have a neutral impact on society.

Refinement Consultation responses

SECAS received a total of two responses (two Network Parties) to the MP160 Refinement Consultation.

Respondents were supportive of the modification's intent, although one respondent felt that the legal text and DCC User Guidance document needed a few refinements and clarification. These amendments were made following the comments. Both respondents felt that the solution put forward would effectively address the issue identified. SECAS has since worked with the Proposer and SEC Lawyer to create updated versions of the documents addressing, where possible, the respondents' comments and suggestions.

Respondents felt that there would be a positive impact on their organisations as there would be a time saving in not having to provide their own forecasts, and therefore will remove an unnecessary administrative burden and no added costs.

All respondents agreed that MP160 better facilitates SEC Objectives (a) and (b), agreeing with the reasons set out within this Modification Report.

Both respondents felt that this modification should be approved, noting the costs and benefits of the Proposed Solution.

Final conclusions

All respondents and Working Group members were supportive, as this will save DCC Users time and resource. Additionally, this modification incurs no DCC cost and makes DCC processing of information more simplified and it will save time and effort.

Appendix 1: Progression timetable

Following the Modification Report Consultation the modification will be presented to the Change Board for vote under Self-Governance on 27 July 2022.

Timetable	
Event/Action	**Date**
Draft Proposal raised	19 Apr 2021
Presented to CSC for initial comment	27 Apr 2021
Presented to SEC Sub-Committees for initial comment	25 May 2021
Presented to CSC for final comment and recommendations	25 May 2021
Panel converts Draft Proposal to Modification Proposal	18 Jun 2021
Legal text developed with the Proposer	Feb – Apr 2022
Guidance document produced by the DCC	Feb – Apr 2022
Proposed Solution developed with the Proposer	Feb – Apr 2022
Modification discussed with Working Group	4 May 2022
Refinement Consultation	11 May – 1 Jun 2022
Modification discussed with SMKI PMA	11 May 2022
Modification Report presented to CSC	21 Jun 2022
Modification Report Consultation	22 Jun – 13 Jul 2022
Change Board Vote	27 Jul 2022

Appendix 2: Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	**Full term**
ADT	Anomaly Detection Threshold
CSC	Change Sub-Committee
CSR	Certificate Signing Request
DCC	Data Communications Company
DCCKI	DCC Key Infrastructure
IKI	Infrastructure Key Infrastructure
OPSG	Operational Sub Group
PDF	Portable Document Format

Glossary	
Acronym	**Full term**
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SMKI	Smart Metering Key Infrastructure
SMKI PMA	Smart Metering Key Infrastructure Policy Management Authority
SSI	Self-Service Interface