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MP303

‘Aligning DCC Certificate processes with SMKI standards’

Modification Report

Version 1.0

18 November 2025



About this document

This document is a 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.

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This document also has one annex:

- **Annex A** contains the redlined changes to the Smart Energy Code (SEC) required to deliver the Proposed Solution.

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1. Summary

This proposal has been raised by David Walsh from the Data Communications Company (DCC).

The DCC are required, when validating Device Certificates, to align with Smart Metering Key Infrastructure (SMKI) standards that are outlined within various Smart Energy Code (SEC) documents.

The DCC, in conjunction with the SMKI PMA (Policy Management Authority) have identified three issues within current SEC Documents relating to the processing of Device Certificates and SMKI standards causing a misalignment with the SEC.

The impact of this not resolving this issue will mean the DCC appear to be non-compliant with various SEC Appendices despite following the correct and agreed industry processes. The proposed changes by the DCC include that of making text-only amendments to four SEC Appendices to ensure the process of validating of Device Certificates going forward is aligned with the SEC.

The Proposed Solution is to update various SEC documents in order to accurately reflect the existing DCC process of validating Device certificates.

This modification is a Self-Governance modification, and implementation costs are limited to Smart Energy Code Administrator & Secretariat (SECAS) time and effort to update the SEC.

2. Issue

What are the current arrangements?

The DCC are required when validating Device Certificates to align with SMKI standards, of which these are outlined within various SEC documents. This ensures Device Certificates are accurate and validated by the Trusted Service Provider (TSP) in accordance with the SEC. The Certificate profiles within SEC Appendices A 'Device Certificate Policy' & B 'Organisation Certificate Policy' specify how the subject and issuer fields should be encoded, and SEC Appendix T 'DCCKI Interface Design Specification' defines how a Certificate Signing Request (CSR) should be submitted.

What is the issue?

The DCC have identified three issues relating to the misalignment of four SEC Documents, existing Device Certificate validation processes and SMKI standards. The issues identified are outlined below:

- 1) Device Certificate Authority (DCA) Certificate Signing Request (CSR) validation within DCC Systems is not aligned with SEC Appendix M 'SMKI Interface Design Specification' as it does not enforce checking the criticality of the extensions present in the CSR. In addition, there is an inconsistency within SEC Appendix A in how it defines the criticality of the 'subjectAltName' extension.
- 2) The DCA and Organisation Certificate Authority (OCA) produce Certificates with the subject and issuer fields encoded differently with respect to the certificate profiles in SEC Appendix A and SEC Appendix B. In addition, there is an inconsistency between SEC Appendix A and Request for Comments (RFC) 5280 in how the subject field should be encoded for a Device Certificate.

- 3) An RFC referenced in SEC Appendix T is not relevant to context and should instead reference the correct RFC number.

What is the impact this is having?

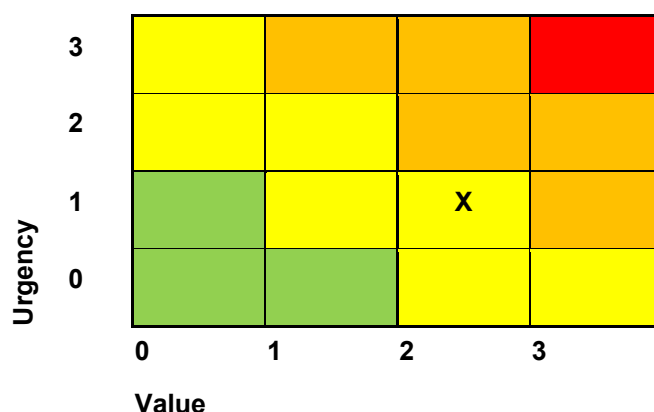
The impact of this not resolving this issue will lead to a continued misalignment between the SEC and existing Device Certificate validation processes undertaken by the DCC. This means that the Certificates signed by SMKI, and the validation of the Device CSRs would essentially be non-compliant with the SEC despite the correct process being followed by the DCC. In addition, the inconsistencies identified above will remain in the SEC, causing ambiguities and could further impact future re-procurements.

Impact on consumers

There is no impact on consumers as a result of this modification.

What is the priority of this Modification?

This modification has a priority score of Medium. This rating is based on the following factors:



These scores have been allocated based on the below factors:

- The Proposed Solution would ensure the SEC and DCC processes relating to Device Certificate validation are aligned.
- The Proposed Solution would ensure SMKI guidelines set out within the SEC are adhered to.
- The Proposed Solution would negate any potential DCC non-compliance with the SEC in relation to Device Certificate validation.

3. Solution

Proposed Solution

The Proposed Solution is to update various SEC documents in order to accurately reflect the existing DCC process of validating Device certificates. Change will be made to the following documents:

- SEC Appendix A 'Device Certificate Policy'
- SEC Appendix B 'Organisation Certificate Policy'
- SEC Appendix M 'SMKI Interface Design Specification'
- SEC Appendix T 'DCCKI Interface Design Specification'

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

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

Breakdown of Other SEC Party types impacted			
	Shared Resource Providers		Meter Installers
	Device Manufacturers		Flexibility Providers
	DCC Other Users		MAPs/ MAMs

The DCC will be impacted by this modification, as they will be formally and accurately obligated by the SEC to continue validating Device certificates through the means of the existing DCC process.

DCC Systems

DCC System changes

There are no changes required to DCC Systems as part of this modification.

DCC System traffic

There will be no impacts to DCC System traffic as part of this modification.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- SEC Appendix A 'Device Certificate Policy'
- SEC Appendix B 'Organisation Certificate Policy'
- SEC Appendix M 'SMKI Interface Design Specification'
- SEC Appendix T 'DCCKI Interface Design Specification'

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

Devices

Devices impacted			
	Electricity Smart Metering Equipment		Gas Smart Metering Equipment
	Communications Hubs		Gas Proxy Functions
	In-Home Displays		Prepayment Meter Interface Devices
	Standalone Auxiliary Proportional Controllers		Home Area Network Connected Auxiliary Load Control Switches
	Consumer Access Devices		Alternative Home Area Network Devices

There are no Devices impacted as a result of this modification.

Consumers

There is no impact to Consumers as part of this modification.

Other industry Codes

There is no impact to other industry codes as part of this modification.

Greenhouse gas emissions

There is no impact to greenhouse gas emissions as part of this modification.

5. Costs

DCC costs

There are no DCC costs associated with this modification.

SECAS costs

The estimated SECAS implementation cost to implement this as a stand-alone modification is half a days of effort, amounting to approximately £300. This cost will be reassessed when combining this modification in a scheduled SEC Release. The activities needed to be undertaken for this are:

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

SEC Party costs

There are no SEC Party costs associated with this modification.

6. Implementation approach

Approved implementation approach

The Change Sub-Committee approved an implementation date of:

- **26 February 2026** (February 2026 SEC Release)

This is a legal text only change and has no DCC System impacts, therefore SECAS recommended this modification be included in the February 2026 SEC Release.

7. Assessment of the proposal

Sub-Committee input

SECAS has engaged with the Chairs from the Operations Group (OPSG), the Technical Architecture and Business Architecture Sub-Committee (TABASC), the Security Sub-Committee (SSC), the Privacy Sub-Committee (PSC), the Performance Assurance Board (PAB) and the SMKI PMA to confirm what input is required from these forums. SECAS believes the following Sub-Committees will need to provide the following input to this modification:

Sub-Committee input	
Sub-Committee	Input sought
OPSG	No input required.
PAB	No input required.
PSC	No input required.
SMKI PMA	Understand whether proposed changes are fit for purpose and assess the possibility of any potential unforeseen consequences of proposed changes.
SSC	No input required.
TABASC	No input required.

Observations on the issue

SMKI PMA

SECAS presented an overview of MP303 to the SMKI PMA in October 2025. Members were comfortable with the intent of the modification and had no further issues to be addressed as part of the modification.

Solution development/ Discussion points

Change Sub-Committee (CSC)

SECAS presented an overview of MP303 to the CSC in September 2025. The CSC were happy formalising the DCC existing process within the SEC and agreed with SECAS' suggestion of checking in with the SMKI PMA to validate everything is agreeable.

8. Case for change

Business case

This modification will address inconsistencies within the SEC and formalise an existing DCC process.

Views against the General SEC Objectives

Proposer's views

The Proposer believes that the modification will better facilitate SEC Objective (g)¹ as it will address a misalignment between the SEC and existing DCC Device certificate validation processes.

Views against the consumer areas

Improved safety and reliability

This modification will have a neutral impact on safety and reliability.

Lower bills than would otherwise be the case

This modification will have a neutral impact on consumer bills.

Reduced environmental damage

This modification will have a neutral impact on environmental damage.

Improved quality of service

This modification will have a neutral impact on quality of service.

¹ To facilitate the efficient and transparent administration and implementation of this Code.

Benefits for society as a whole

This modification will have a neutral impact on benefits for society.

Final conclusions

This modification addresses a misalignment between the SEC and existing DCC Device certificate validation processes. There are no DCC costs and only a minimal SECAS cost to implement.

Appendix 1: Progression timetable

Timetable	
Event/Action	Date
Draft Proposal raised	9 Sep 2025
Presented to CSC for initial comment	16 Sep 2025
Modification discussed at SMKI PMA	8 Oct 2025
<i>Presented to CSC for progression to Report Phase</i>	<i>18 Nov 2025</i>
<i>Modification Report Consultation</i>	<i>19 Nov 2025 – 9 Dec 2025</i>
<i>Change Board Vote</i>	<i>17 Dec 2025</i>

Italics denote planned events that could be subject to change

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
CSC	Change Sub-Committee
CSR	Certificate Signing Request
DCC	Data Communications Company
GBCS	Great Britain Companion Specification
OCA	Organisation Certificate Authority
OPSG	Operations Group
RFC	Request for Comment
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator & Secretariat
SMKI	Smart Metering Key Infrastructure
SMKI PMA	SMKI Policy Management Authority

Glossary	
Acronym	Full term
SSC	Security Sub-Committee
TABASC	Technical Architecture and Business Architecture Sub-Committee
TSP	Trusted Service Provider