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MP241 'Interoperability Checker Update'

Modification Report

Version 1.0

13 August 2024

Corporate member of
Plain English Campaign
Committed to clearer
communication

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About this document

This document is a Modification Report. It currently 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 four annexes:

- **Annex A** contains the business requirements for the solution.
- **Annex B** contains the redlined changes to the Smart Energy Code (SEC) required to deliver the Proposed Solution.
- **Annex C** contains the full responses received to the Refinement Consultation.
- **Annex D** contains the full Data Communications Company (DCC) Impact Assessment Response.

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1. Summary

This proposal has been raised by Robin Seaby from the DCC.

The Interoperability Checker Service is a tool hosted on the Citizens Advice website that enables consumers to check whether their Smart Meter should be operating in Smart Mode. It uses information provided by Suppliers to provide generalised results to the consumer.

The current generalised results in the Interoperability Checker are based on policy data on Device Models and Supplier Interoperability Data. This data can change and leads to inconsistency and can lead to consumer confusion. Citizens Advice has received consistent feedback from consumers based on these generalised results and would like to explore changes to improve the consumers' user experience and provide additional information on Smart Meter availability.

The Proposed Solution aims to enhance the accuracy and functionality of the Interoperability Checker Service. The DCC will do this by using their own system data to inform reports for Devices operating in Smart Mode, Supplier operable Device models, Smart Meter take-up. This will be complemented by integrating the Citizens Advice backend system with DCC Application Program Interface (API) endpoints and developing the Citizens Advice website accordingly. The Proposed Solution is aimed towards Smart Metering Equipment Technical Specification (SMETS1) only.

This modification will impact the DCC and Suppliers. The DCC costs for implementing this modification are £86,862 and is targeted for the June 2025 SEC Release. This will be a Self-Governance modification.

2. Issue

What are the current arrangements?

SEC Section H Clause 16 'Interoperability Checker Service' requires the DCC to collaborate with Citizens Advice to provide the tool on behalf of Suppliers. The tool advises consumers on whether their Smart Meter is operating in Smart Mode. It also informs consumers about which Suppliers they could switch to whilst retaining or regaining Smart functionality on their Smart Metering System (SMS). The data used to populate the Interoperability Checker is based on the Responsible Supplier's indication of which SMETS Device Models it is capable of operating. The Interoperability Checker Service was designed to assist SMETS1 consumers to identify whether their meters would lose functionality if they moved Supplier, as well as helping them to see whether the smart functionality was currently being used.

What is the issue?

Currently, the Interoperability Checker's results may not reflect a consumer's actual experience with their Smart Meter. This inconsistency has resulted in misunderstanding among some consumers. To gain further feedback on the issue, Citizens Advice ran a survey from 17 November 2022 until 10 March 2023, which received 88 responses. One question that was asked was "Was the tool helpful to you?" 35 respondents answered "Yes" and 53 answered "No", therefore 60.2% of respondents felt the tool is unhelpful.

The Interoperability Checker Service has issues with providing accurate information to consumers about their Smart Meter's capabilities and the likelihood of having one installed. The current generalised results are based on Device Model rather than personalised information. This has contributed to misperception and inconsistency in results which can be frustrating for consumers.

Comments from consumers who completed the survey included:

- *"The pages (for both meters) say my meter is working but my account says that no meter readings since 24/10/22."*
- *"It said it cannot get readings, but my supplier does get them. I know my meter is SMETS1 and want to see if it's been upgraded".*
- *"It says my meter SHOULD be working in Smart mode not IS WORKING so I suspect the tool just checked that a Smart meter was installed, not that it was actually signalling readings back to my supplier. Waste of time."*

When asked what could make the tool more useful, suggestions from consumers included:

- *"Absolute Confirmation that the meters are sending data."*
- *"Yes. How do I know it is functioning correctly. That would help."*
- *"An answer from the tool that discusses the possibilities why there is no reply from the meter."*

What is the impact this is having?

The lack of a source of personalised information for consumers waiting for a Smart Meter installation has led to queries being raised to the DCC. The Proposer believes that there is a need to improve the Interoperability Checker's user experience and provide additional information on the likelihood of having a Smart Meter installed.

Impact on consumers

Consumers are impacted negatively due to the Interoperability Checker's results not reflecting a consumer's actual experience with their Smart Meter. The use of Device Models instead of personalised transaction data and reliance on outdated Supplier Interoperability Data can cause confusion and inconsistencies for consumers. This lack of accurate information can lead to frustration and potentially prevents consumers from making informed decisions about their energy usage. Furthermore, the absence of a reliable source of personalised information for consumers awaiting Smart Meter installations is resulting in enquiries to the DCC, creating further inconvenience and delays. It is understood that this is likely generating call traffic to Suppliers as well.

3. Solution

The Proposed Solution involves the DCC making use of system data to enhance the accuracy of the Interoperability Checker Service, ensuring more reliable results for consumers. The DCC will develop

an automated system to collect, transform and load data which will serve all business requirements associated with this modification.

The DCC will develop new reports to identify:

- Premises that are currently operating in Smart Mode.
- Which SMETS1 Device Models can be operated in Smart Mode by each Supplier.

The business requirements for the solution can be found in Annex A.

Detail on the criteria to be used to fulfil the reporting requirements can be found in the DCC Impact Assessment in Annex D.

The legal text for the solution can be found in 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

The DCC will be impacted due to utilising and optimising existing data sources and infrastructure. They will need to build additional reporting and support Citizens Advice to deliver the information to their website.

Suppliers will be impacted by this modification as they will no longer be required to provide the DCC with policy data, streamlining the process and reducing their administrative burden.

DCC Systems

DCC System changes

This modification does not impact the DCC Total System.

The DCC Data Science and Analytics (DS&A) team will create new reports that will be produced to inform the Interoperability Checker Service through the Citizens Advice website.

The Interoperability Checker Service API will be modified to include new endpoints for Citizens Advice to request information in relation to the new requirements. Consumers and additional serverless applications will be developed to fulfil valid requests received at the new API endpoints.

The full impacts on DCC Systems and DCC's proposed testing approach can be found in the DCC Impact Assessment response in Annex D.

DCC System traffic

It has been confirmed by the DCC Impact Assessment that the Proposed Solution should not add any traffic or processing to the Smart Metering System or network infrastructure.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Section H 'DCC Services'

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

Technical specification versions

This modification does not impact the Technical Specifications.

Devices

No Devices are impacted from the implementation of this modification.

Consumers

This modification will lead to a more accurate Interoperability Checker Service, enhancing the user experience by providing consumers with the information they need to make informed decisions about their Smart Meters.

Other industry Codes

No impacts have been identified on other Codes if this modification were to be implemented.

Greenhouse gas emissions

No impacts have been identified affecting greenhouse gas emissions if this modification were to be implemented.

5. Costs

DCC costs

The estimated DCC implementation costs to implement this modification is £86,862. The breakdown of these costs are as follows:

Breakdown of DCC implementation costs	
Activity	Cost
Design, Build and Pre-Integration Testing (PIT)	£86,862
Systems Integration Testing (SIT)	£0
User Integration Testing (UIT)	£0
Implement to Live	£0
Application Support	£0

More information can be found in the DCC Impact Assessment response in Annex D.

SECAS costs

The estimated Smart Energy Code Administrator and Secretariat (SECAS) implementation cost to implement this as a stand-alone modification is one day of effort, amounting to approximately £600. 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

This modification is not expected to incur costs to any SEC Party. Suppliers may experience improved efficiency by reducing the volume of customer queries and less time advising of policy changes to the DCC. Two respondents to the Refinement Consultation commented advising that they will not incur any costs by implementing this modification, with one respondent advising the Proposed Solution would slightly reduce their costs if there were a reduced number of errors from the Interoperability Checker Service. Another respondent to the Refinement Consultation was unsure if any costs would be incurred and explained it would be highly dependent on increased or decreased call volumes.

6. Implementation approach

Recommended implementation approach

The Change Sub-Committee (CSC) has agreed an implementation fate of is recommending of:

- **Ad-hoc SEC Release (ten months after decision)**

This modification does not impact the DCC Total System, therefore can target any SEC Release as it does not require the full SIT/UIT testing cycles associated with a conventional SEC Release. There is

a six-month lead time detailed within the Impact Assessment, therefore the earliest Release this could target is the June 2025 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 Smart Metering Key Infrastructure Policy Management Authority (SMKI PMA), the Testing Advisory Group (TAG) and the Privacy Sub-Committee (PSC) 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	OPSG to advise on operational requirements needed to improve the Interoperability Checker's user experience
SMKI PMA	No input required
SSC	Seek input on whether any necessary adjustments or assessments should be taken into consideration before progressing
TABASC	To review if there are any potential risks or challenges that could arise during implementation
TAG	No input required
PSC	No input required

Observations on the issue

The OPSG Chair highlighted that this modification is a big change which could potentially put DCC closer to the end consumer over Suppliers. The OPSG Chair highlighted that the accuracy and responsibility of data is with Suppliers. The OPSG Chair stressed the importance of clarifying the purpose and scope of the service and suggested obligating Suppliers to provide accurate data. The OPSG Chair advised they are interested with the development of this modification and would like to be kept informed on the progress made.

The SSC Chair pointed out that the initial security architecture of the tool has been approved however, they mentioned they would like to be updated on the changes made to the current tool and what remains the same. The SCC Chair noted that the information on the Citizens Advice website may be promising more than the service provides. The DCC have advised as part of the new user journey mapping, it is proposed that Suppliers would be engaged on the messaging for this service.

The TABASC Chair emphasised that Suppliers would need to approve the data presented due to a disconnect between what they see and what the DCC sees.

The OPSG, TABASC and SSC Chairs agreed that it is the Supplier's responsibility to provide the necessary information to meet the consumer's needs. The DCC have advised that it will use DCC

transactional data which is already in their system to improve the accuracy the Interoperability Checker Service.

Solution Development

Would updating Supplier Interoperability Data improve the consumer's experience?

The Interoperability Checker tool could be improved to make it easier to use and be more reliable. This can be done by using information about how different Devices work together, as well as checking to see if a Smart Meter is working properly by looking at its transactions. The Proposer believes that this will allow users to get tailored results based on their specific information. The Proposer also notes this will save time and frustration and help users make informed decisions.

The Working Group raised concerns over an issue of duplication and commercial interests as there is a similar smart meter health checker being built by a SEC Party which is available. The DCC noted that these changes are building on an existing requirement and service from within the SEC. Citizens Advice also noted that the SEC Party's specific tool did not meet their requirements with its current design. It also believed that the Proposed Solution does not completely resolve the issue and it undermines the Supplier's role. The Proposer responded advising that this modification aims to provide additional tools and information for consumers. Citizens Advice also highlighted the importance of providing independent advice and guidance to help consumers.

An Other SEC Party responded to the Refinement Consultation and expressed that the solution improves the accuracy, however even after the enhancement the issue will not be resolved. The DCC responded advising the proposed enhanced to the Interoperability Checker Service will provide an improved independent source of information. Whilst it will not resolve all issues, it will offer a significant improvement on the current data provision.

Should consumers be able to check the viability of having a Smart Meter at their premises?

It was not the original intent of the Interoperability Checker Service to serve consumers that do not have a Smart Meter. However, Citizens Advice noted that there is currently nowhere for a consumer to check whether it is possible to have a Smart Meter fitted at their premises. The intent is for a consumer to be able to identify whether they can have a Smart Meter installed, and the solution supports this by providing a percentage of Smart Meter take up in a surrounding area. The results from the tool need to encompass only the premises in closest geographical proximity to the address provided while not covering so few premises that it would be possible to identify data relating to individual premises in the result. These criteria will be developed in the Full Impact Assessment.

Following a discussion at the Working Group, the Proposer agreed to reduce the scope of the modification and remove business requirement 4¹. This will ensure enhancements to the Interoperability Checker Service but not the introduction of the ability for consumers check whether it is viable to have a Smart Meter operate as intended at their premises. It was agreed if this requirement was to be taken forward that it should do so under a separate modification.

A Working Group member noted that the wording on the Citizens Advice website should provide clear information that the results may not be a true reflection of the viability of having a Smart Meter

¹Business requirement 4 - Provide consumers with information as to whether their property could have a Smart Meter installed. This has subsequently been removed following this feedback.

installed at the premises. Citizens Advice responded by saying that the checker will test with the consumer whether communication has been clear, and the checker will explain where it sources the information from.

Change in Use Case for the Interoperability Checker Service

The Working Group highlighted that the Interoperability Checker Service's intended use is to help consumers check if their SMETS1 meter will still retain Smart Mode capabilities if a consumer were to switch Supplier. This modification seeks to inform consumers if their meter is operating in Smart Mode which is not what the tool was built to provide. Citizens Advice have stated although the use case is different to the initial design, their research identifies that consumers are already using the tool to confirm whether their meter is working and noted media coverage often provides links to the tool to use in this way.

DCC Data source

The solution will utilise the DCC transactional data to provide more accurate results for the consumer than relying on policy data from Suppliers. This will provide a more tailored result to the consumer.

The criteria DCC plan to use to identify whether a SMETS1 Smart Meter is operating in Smart Mode is derived from the following Service Request Variants (SRVs)

- SRV 4.6.1'RetrieveImportDailyReadLog'
- SRV 4.8.1'ReadActiveImportProfileData'
- SRV 4.8.2'ReadReactiveImportProfileData'
- All variants of SRV 4.1 & SRV 4.4

The DCC will verify that a Supplier has sent at least one SRV listed above within 60 days.

The criteria DCC plan to use to identify whether a Supplier can operate a SMETS1 Smart Meter is in Smart Mode is derived from the following SRVs which targets a Device of that Device Model and that was successfully processed

- SRV 4.6.1'RetrieveImportDailyReadLog'
- SRV 4.8.1'ReadActiveImportProfileData'
- SRV 4.8.2'ReadReactiveImportProfileData'
- All variants of SRV 4.1 & SRV 4.4

Text information on Citizens Advice website

A CSC member advised the current wording on the Citizens Advice website should be revised due to causing confusion on what service the tool is currently providing. Citizens Advice has noted that content will be reviewed so that the information presented is clear and concise. The addition of a consumer checking the viability of having a Smart Meter fitted is a new user journey that would need to be mapped out during the implementation. This will require new public facing text developed to

accompany the tool. The DCC has since stated that input will be sought from Suppliers to agree the appropriate text.

8. Case for change

Business case

The DCC's location-based data improves the accuracy on information consumers get about their Smart Meter providing an informed choice. This enhancement will improve consumer experience as the DCC will provide tailored information for each consumer. Having this enhancement also reduces the number of enquiries and support requests that the DCC would receive.

The Proposed Solution holds the potential to enhance the effectiveness of the Interoperability Checker Service and reduce consumer confusion.

Views against the General SEC Objectives

Proposer's views

The Proposer believes that providing more personalised information to consumers about their Smart Meter capabilities will better facilitate SEC Objective (a)² and (c)³. This is because the enhancement ensures that Smart Meters are correctly identified as operating in Smart Mode or not. This reduces the likelihood of operational issues or confusion during meter installations or when switching Supplier. This modification also enables consumers to receive more precise and reliable information about their Smart Meter.

Industry views

One respondent to the Refinement Consultation agreed that this modification would better facilitate SEC Objective (c). Another disagreed, noting that SEC Objective (c) relates to energy consumers management of their use of electricity and gas through the provision of them of appropriate information by means of Smart Metering Systems. They stated that the Interoperability Checker Service does not form part of the Smart Metering System. The DCC responded advising that the Interoperability Checker Service is a tool to help consumers with SMETS1 Devices better understand their choice of Supplier and impacts of switching. By providing reliable information, the proposed changes will allow consumers to make better informed decisions.

A Large Supplier expressed that this modification would have a negative effect on SEC Objective (a), as the additional steps using the service before being redirected to the Supplier could be avoided if consumers were directed to the Supplier initially. Citizens Advice has noted that most users appear to have engaged with their Supplier and use the Interoperability Checker Service as a way of gaining independent information to assist them in their enquiries.

² Facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises with Great Britain

³ Facilitate Energy Consumers' management of their use of electricity and gas through the provision to them of appropriate information by means of Smart Metering Systems

Views against the consumer areas

Improved safety and reliability

This modification has a neutral impact on safety and reliability.

Lower bills than would otherwise be the case

This modification has a positive impact on lowering bills than would be otherwise be the case as consumers have enhanced accuracy in the results generated in the tool leads to an increased chance for the consumer to have a Smart Meter installed which would lead to lowering their energy bills.

Reduced environmental damage

This modification has a neutral impact on reducing environmental damage.

Improved quality of service

This modification has a positive impact on improving the quality of service as it aims to improve the accuracy of the Interoperability Checker Service.

Benefits for society as a whole

This modification has a neutral impact in this area.

Appendix 1: Progression timetable

Timetable	
Event/Action	Date
Draft Proposal raised	5 May 2023
Presented to CSC for initial comment	16 May 2023
CSC converts Draft Proposal to Modification Proposal	16 May 2023
Business Requirements developed with Proposer	16 May 2023 – 4 July 2023
Modification discussed with Working Group	5 Jul 2023
Modification discussed with OPSG	6 Jul 2023
Preliminary Assessment requested	14 Sep 2023
Preliminary Assessment returned	16 Oct 2023
Modification discussed with Working Group	1 Nov 2023
Refinement Consultation	15 Nov 2023 – 6 Dec 2023
Impact Assessment costs approved by Change Board	21 Feb 2024
Impact Assessment requested	23 Feb 2024

Timetable	
Event/Action	Date
Impact Assessment returned	6 Jun 2024
Modification discussed with Working Group	3 Jul 2024
Modification discussed with Working Group	7 Aug 2024
Modification Report approved by CSC	20 Aug 2024
Modification Report Consultation	21 Aug 2024 – 12 Sep 2024
Change Board Vote	25 Sep 2024

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
API	Application Program Interface
CSC	Change Sub-Committee
DCC	Data Communications Company
DS&A	Data Science and Analytics
OPSG	Operations Group
PIT	Pre-Integration Testing
PSC	Privacy Sub-Committee
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	System Integrated Testing
SMETS	Smart Metering Equipment Technical Specification
SMKI PMA	Smart Metering Key Infrastructure Policy Management Authority
SMS	Smart Metering System
SRV	Service Reference Variant
SSC	Security Sub-Committee
TABASC	Technical Architecture and Business Architecture Sub-Committee
TAG	Testing Advisory Group
UIT	User Integrated Testing
WAN	Wide Area Network