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# MP138 'DCC Service Testing in ETAD'

## Modification Report

Version 0.4

11 May 2021



## About this document

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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. This document will be updated as this modification progresses.

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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.
- **Annex B** contains the Data Communications Company (DCC) GBCS for Industry (GFI) Provision and Allocation Policy.

## Contact

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## 1. Summary

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This proposal has been raised by Richard Collard on behalf of the DCC.

The scope of the Enduring Testing Approach Document (ETAD) was initially to ensure DCC Users had appropriate provisions to undergo the User Entry Process Testing (UEPT). However, the ETAD does not include all the Testing Services that the DCC offers.

The DCC has been working with Device Manufacturers to understand their testing needs and develop additional Testing Services.

The Proposed Solution is to add four Testing Services to the ETAD. This modification has an impact on the DCC in regard to finance and charging. There are no costs to SEC Parties as a result of this change. This is a Self-Governance Modification and is targeted for implementation in the November 2021 SEC Release.

## 2. Issue

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### What are the current arrangements?

#### Testing Services

A recent review of interoperability change commissioned by the Department of Business, Energy and Industrial Strategy (BEIS) included a recommendation to update the SEC testing approach documentation to include Device Manufacturer related Testing Services and validate with industry to ensure that these services are fit for purpose.

The initial ETAD was designed to deliver support to DCC Users to qualify through entry process testing and to operate freely within the User Integration Testing (UIT) environment. However, there has been increasing recognition amongst industry of the value of providing Testing Services to Device Manufacturers who are not DCC Users. The DCC has therefore been in discussion with industry, particularly Device Manufacturers, to help shape the Testing Services that the DCC offer.

#### Charging

The DCC Charging Methodology Section K enables Testing Participants (which can include Device Manufacturers) the option to currently pay for “additional testing support” (SEC Section K7.5(i). The “additional testing support” charge is an Explicit Charge and is based on the cost of one consultant per day. Testing Participants may request additional testing support in accordance with SEC Section H14.33 to understand and resolve issues associated with:

- the DCC Total System and the results of such Testing Participant's Device and User System Tests.
- the Systems of the Testing Participant that are (or are intended to be) User Systems.
- communications between the DCC and any Device or between Devices which comprise (or which the Testing Participant intends will comprise) a Smart Metering System.

## What is the issue?

The ETAD does not currently include three existing Testing Services and one new Testing Service that the DCC offers. The Explicit Charging statement does not cover charging for these new Testing Services.

In addition, the DCC propose that the ETAD is reviewed for misalignments and amended accordingly. For instance, obligations in relation to GFI are currently in SEC Section X9 'Interim Device and User System Testing'. It is proposed that this be removed and included within the ETAD as Section X is expected to be removed from the SEC shortly and the ETAD is an enduring document.

The Testing Services within scope of this modification are summarised in the below table:

Existing Testing Services not currently in the ETAD		
Testing Service	Customers	Description
Interoperability and Innovation Events	Device Manufacturers	Occasionally (and at its discretion), the DCC hosts Interoperability and Innovation Events. These developmental events provide Device Manufacturers with a platform to test connectivity, interoperability, interchangeability and functionality between Home Area Network (HAN) Devices. These events often provide Device Manufacturers with access to real life Communications Hubs.
Great Britain Companion Specification (GBCS) for Industry (GFI)	Device Manufacturers, Suppliers	<p>This is a free tool developed by the DCC. It comprises of software and a ZigBee HAN interface to simulate the DCC and Communications Hubs for testing HAN Commands and Responses with:</p> <ul style="list-style-type: none"> <li>Electricity Smart Metering Equipment (ESME)</li> <li>Gas Smart Metering Equipment (GSME)</li> <li>In-home Displays (IHDs)</li> <li>Prepayment Interface Devices (PPMIDs)</li> <li>Consumer Access Devices (CADs)</li> <li>HAN Connected Auxiliary Load Control Switches (HCALCSs)</li> </ul> <p>The tool allows Users to emulate sending and receiving GBCS messages to help identify any potential differences between how Parties have interpreted the Technical Specifications in comparison with the DCC interpretation. The tool has the capability to emulate a Communications Hub to enable testing with real Smart Metering Devices.</p>

Existing Testing Services not currently in the ETAD		
Testing Service	Customers	Description
Wired Instrumented Test Communications Hub (ITCH)	Device Manufacturers	<p>Wired ITCH is a Communications Hub used in test environments that allows Device Manufacturers to send WAN Commands from a GFI through a wired interface. This is required as Device Manufacturers do not have the ability to send Commands to the DCC for delivery over the WAN. A Wired ITCH can be used with emulators and real-life ESME/GSME.</p> <p>Device Manufactures are able to order Wired ITCH in accordance with SEC Section F10.</p>

New Testing Services not currently in the ETAD		
Testing Service	Customers	Description
Radio Frequency (RF) Noise	Device Manufacturers	<p>The DCC previously worked with the industry to develop the RF Noise requirements in the Intimate Communications Hub Interface Specification (ICHIS) and the associated test specification. Following industry consultations in 2018, the DCC funded a temporary central test lab facility, provided by Plextek, to support testing to the ICHIS test specification. The DCC provided funding to support the eight-meter testing to ICHIS 2.0 in Quarter 3 2019.</p> <p>The DCC reviewed the need for an enduring central lab facility with the ICHIS Working Group and Energy Suppliers through Q3 and Q4 2019. The DCC has concluded an enduring central test facility is required to enable Device Manufacturers to test their Devices and ensure they meet the ICHIS, so they do not impact the Wide Area Network (WAN) or HAN performance.</p> <p>A general RF testing capability was procured as part of the DCC's Brabazon House testing facilities in 2019 as it was required for network technology tests. The DCC is migrating the test facility from the temporary appointed sub-contractor (Plextek) to DCC Brabazon House; this is expected to conclude in Q3 2020.</p>

### What is the impact this is having?

The Proposer believes the impact of not amending the ETAD to include the existing and new Testing Services would misalign with current DCC processes. By adding these Testing Services to the ETAD, appropriate charging arrangements would be reflected in the SEC for the RF Noise Testing Service, whilst also giving greater clarity to the other Testing Services the DCC offers.

### Impact on consumers

There is no impact on consumers from this modification.

## 3. Solution

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### Proposed Solution

The Proposed Solution seeks to add new and existing Testing Services to the ETAD to provide greater clarity to SEC Parties and wider industry on the Services available to them.

The DCC considers that the current arrangements around the Explicit Charge for Testing Services are not currently fit for the purpose of charging for these Testing Services. Therefore, the solution will provide greater oversight on what Testing Services are available and the charging arrangements around them.

### Interoperability and Innovation Events

These events are held on occasion. The DCC do not currently charge for these and are not proposing any Explicit Charges for these.

### GFI

There will be a new Explicit Charge for GFI, this will be in accordance with a new GFI provisions and allocation policy produced by the DCC. This means that Parties will only be charged for GFI tools if they have exceeded their allocation. The GFI Provisions and Allocation Policy can be found in Annex B.

### Wired ITCH

Device Manufactures are able to order Wired ITCH in accordance with SEC Section F10. The DCC currently have an Explicit Charge for Wired ITCH set out in SEC Section K. The DCC proposes to move the references into the ETAD for clarity and consistency.

### RF Noise Testing

Following industry consultations in 2018, the DCC funded a temporary central test lab facility, provided by Plextek, to support testing to the ICHIS test specification. The initial set up costs have been through price control and socialised across Users via DCC Fixed Charges.

The DCC currently fund the monthly maintenance costs to ensure the continuity of a Central Lab Facility with up-to-date Test Procedures, as specified from ICHIS Working Group. Parties pay Plextek directly for test days used.

The Charging Statement will not feature the '*RF Noise Testing*' charge unless it's designated in the SEC and DCC would continue to fund the maintenance charges with Plextek and unable to recover any charges with Device Manufacturers. The Proposed Solution is to ensure that, via a new Explicit Charge, meter manufacturers will be charged a day-rate that reflects the costs incurred by DCC for resource and materials of using the facility at Brabazon House. DCC Users can book the service for no additional charge.

The DCC would cease to pay the monthly maintenance charges to Plextek as a result, once the service has been fully set up in Brabazon House. The avoidance of monthly maintenance fees to Plextek and a setup fee included within the day rate will mitigate further setup costs (£65k) within the first 8 months.

The setup costs that have previously been socialised across DCC Users (and have been through price control) would be balanced over a two- year period from the avoidance of monthly maintenance fees combined with the setup fee included within the day rate. The charge for the setup fee could be given back to DCC Users through a rebate mechanism.

The DCC propose through the Refinement Consultation to ask SEC Parties for input on the option to include set up costs in the Explicit Charge to Device Manufacturers.

## 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

This modification impacts SEC Parties positively due to the greater clarity provided within the ETAD of Testing Services available to them. In addition, there is an impact on Parties around GFI testing and RF Noise testing in respect to the charging arrangements. Suppliers are impacted by this modification, as they have a responsibility to ensure their meters are RF Noise compliant.

### DCC System

There are no impacts on DCC systems in this modification.

### SEC and subsidiary documents

The following parts of the SEC will be impacted:

- [Section H 'DCC Services'](#)
- [Section K 'Charging Methodology'](#)

- [Schedule 7 'Specimen Enabling Services Agreement'](#)
- [Appendix J 'Enduring Testing Approach Document'](#)

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

### Consumers

There is no impact on consumers from this modification.

### Other industry Codes

There is no impact on other industry Codes from this modification.

### Greenhouse gas emissions

There is no impact on greenhouse gas emissions from this modification.

## 5. Costs

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### DCC costs

There are no DCC costs to implement this change.

### SECAS costs

The estimated SECAS implementation costs to implement this modification is two days of effort, amounting to approximately £1200. The activities needed to be undertaken for this are:

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

## 6. Implementation approach

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### Recommended implementation approach

SECAS is recommending an implementation date of:

- **4 November 2021** (November 2021 SEC Release) if a decision to approve is received before 21 October 2021; or
- **24 February 2022** (February 2022 SEC Release) if a decision to approve is received after 21 October 2021 but on or before 10 January 2022.



This is a document only change and it has no impact on DCC Systems; it simply seeks to clarify the Testing Services DCC offer in the ETAD. The modification also seeks to clarify charging arrangements of some Testing Services. The November 2021 SEC Release is the earliest SEC Release this modification could be included in.

## 7. Assessment of the proposal

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### Observations on the issue

The DCC informed the Change Sub-Committee (CSC) that a charging element may need to be introduced for RF noise testing within the SEC, or alternatively, the existing method of charging would need to be reviewed. A CSC member questioned whether the Testing Advisory Group (TAG) has provided views on this proposal and whether this will be presented to it in the future. SECAS noted that the TAG had not provided any input at that point, however, it was subsequently discussed as part of the Refinement Process.

### Solution development

Working Group members also raised a concern that there was duplication between this modification and [MP111 'Smart Metering Device Assurance \(SMDA\) Budget Amendments'](#). The DCC clarified that the modification is not a duplication of MP111. Testing Services will be carried out in DCC Test Laboratories by Device Manufacturers and is specific to the issue of RF Noise. It was further explained that the SMDA Scheme is independent and looks more at the interoperability of Devices rather than individual functionality tests such as RF Noise. SECAS and the DCC agreed that the clarification should be noted within the modification to clarify there is no duplication with MP111.

During solution development the DCC encountered issues on the RF Noise element of the modification due to COVID-19. The DCC advised that an internal issue within their Test Laboratories needed to be resolved, the issue within their labs interfered with frequencies. The DCC explained that workers were unable to access their labs due to COVID-19 restrictions, therefore, solution development was delayed until February 2021.

The TAG was initially concerned around the set-up costs for the RF Noise Frequency testing but the DCC highlighted that the setup costs that have previously been through price control and socialised across DCC Users. For this reason, the DCC proposed that DCC Users would pay no additional charge for this service.

### Support for Change

The CSC supported this change and recommended that the modification be discussed at TAG for further clarity.

The Working Group supported the change however, felt clarity is required to show the modification is focused on individual functionality and not focused on interoperability. One member queried if the

modification would make the Testing Services discussed mandatory or voluntary. The DCC advised the Testing Services would be voluntary. The DCC added that this modification would introduce a new Explicit Charge for RF Noise testing. Currently RF noise, GFI and interoperability testing is not charged by the DCC. (The DCC currently have an Explicit Charge for Wired ITCH set out in SEC Section K).

## Views against the General SEC Objectives

### Proposer's views

The Proposer believes this modification will better facilitate:

- SEC Objective (a)<sup>1</sup> as it provides industry on greater oversight of Testing Services available to them;
- SEC Objective (b)<sup>2</sup> as it will enable the DCC to comply with their obligations, by providing further clarity around the arrangements of Testing Services; and
- SEC Objective (e)<sup>3</sup> as it will ensure devices are fit for purpose and contribute to a functional energy system.

## Views against the consumer areas

### Improved safety and reliability

The increased provision of testing will help increase the safety and reliability of Devices and Smart Metering Systems for consumers.

### Lower bills than would otherwise be the case

This modification will be neutral against this area.

### Reduced environmental damage

This modification will be neutral against this area.

### Improved quality of service

This modification will improve quality of service, as Testing Services enable the improvement of quality of devices, by ensuring industry to remains compliant with the quality of devices.

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<sup>1</sup> Facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises within Great Britain

<sup>2</sup> Enable the Data Communications Company to comply at all times with the General Objectives of the Data Communications Company (as defined in the Data Communications Company Licence), and to efficiently discharge the other obligations imposed upon it by the Data Communications Company Licence

<sup>3</sup> Facilitate innovation in the design and operation of energy networks to contribute to the delivery of a secure and sustainable supply of energy.

## Benefits for society as a whole

This modification will be neutral against this area.

## Appendix 1: Progression timetable

This modification will be issued for Refinement Consultation. Following the resolution of any comments the Modification Report will then be presented to Panel.

Timetable	
Event/Action	Date
Presented to CSC for initial comment	28 Jul 2020
Presented to CSC for final comment and recommendations	25 Aug 2020
Panel converts Draft Proposal to Modification Proposal	11 Sep 2020
Modification discussed with Working Group	7 Oct 2020
Modification discussed with TAG	24 Feb 2021
Modification discussed with TAG	28 Apr 2021
Modification discussed with Working Group	5 May 2021
Refinement Consultation	17 May – 7 Jun 2021
Modification Report presented to Panel	16 Jul 2021
Modification Report Consultation	19 Jul – 6 Aug 2021
Change Board Vote	25 Aug 2021

## 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
BEIS	Department of Business, Energy and Industrial Strategy
CAD	Consumer Access Device
CSC	Change Sub-Committee
DCC	Data Communications Company
ESME	Electricity Smart Metering Equipment
ETAD	Enduring Testing Approach Document
GBCS	Great Britain Companion Specification
GFI	Great Britain Companion Specification for Industry
GSME	Gas Smart Metering Equipment

Glossary	
Acronym	Full term
HAN	Home Area Network
HCALCS	Home Area Network Connected Auxiliary Load Control Switch
ICHIS	Intimate Communications Hub Interface Specification
IHD	In-Home Display
ITCH	Instrumented Test Communications Hub
PPMID	Prepayment Interface Device
RF	Radio Frequency
SEC	Smart Energy Code
SMDA	Smart Meter Device Assurance
TAG	Testing Advisory Group
UIT	User Integration Testing
UEPT	User Entry Process Testing
WAN	Wide Area Network