

# **SEC Modification Proposal, SECMP0077**

## **DCC Service Flags**

### **Full Impact Assessment (FIA), DCC CR1249 and CR4069**

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**1.0**

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**DCC**

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# 1 Document History

## 1.1 Revision History

Revision Date	Revision	Summary of Changes
20/11/2020	0.1	Initial compilation from Service Provider
27/11/2020	1.0	DCC internal review completed

## 1.2 Associated Documents

This document is associated with the following documents:

#	Title and Originator's Reference	Source	Issue Date
1	MP077 Business-Requirements v0.5	SECAS	23/09/2020
2	SECMP0077 CR1249 - PIA - Service Flags v1.01	DCC	16/09/2020

## 1.3 Document Information

The Proposer for this Modification is Paul Saker of EDF Energy. The original proposal was submitted in June 2019.

The Preliminary Impact Assessment was requested of DCC on 9th November 2019 and was submitted on 31st December 2020. After a series of clarifications and revised requirements were provided by the Working Group, a second request for a PIA was issued on 16th April 2020.

Subsequently the Working Group chose the "A, N, and I Solution", and requested a Full Impact Assessment (FIA) on 1<sup>st</sup> October, 2020.

The SECAS-provided text following combines references to "Device Status" and "DCC Service Flag", while SECAS title for the Modification is "DCC Service Flagging". For consistency the term "DCC Service Status" has been used for the solution definition instead of "DCC Service Flag" for consistency with Smart Metering Inventory (SMI) terminology. However the Modification title and requirements have been left with the term "DCC Service Flag".

All cost information has been removed from this document to allow public distribution.

## 2 Solution Requirements and Overview

In this section, the context of the Modification, assumptions, and the requirements are stated.

The SEC Definitions, issue statement, and requirements following have been provided by SECAS and the Proposer.

### 2.1 SEC Definitions of Service Flags

The following definitions are specified in the Smart Energy Code (SEC).

A Smart Metering System (SMS) is defined as a Communication Hub (CH) with at least one Commissioned meter and any available PPMID or IHD devices. The minimum configurations for a SMS is one CH and Electricity Smart Metering Equipment (ESME) for electricity or one CH and Gas Smart Metering Equipment GSME for gas. Note that the SEC explicitly distinguishes between a SMS for electricity and gas.

The DCC Service Flag and the current state associated with the SMS is communicated to the appropriate Meter Point Administration Service (MPAS) for electricity meters and XOSERVE for gas meters.

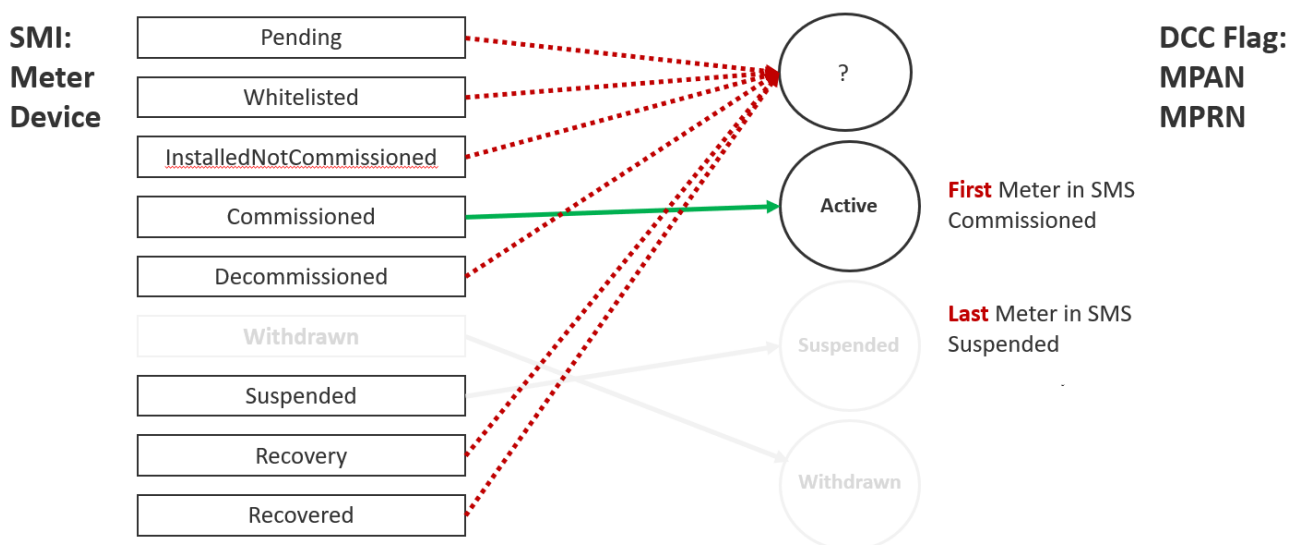
There are three possible status flags; Active (A), Suspended (S), and Withdrawn (W). Once the ESME (or GSME) is Commissioned the SMS has the status of "Active".

The SEC does not indicate what happens if the LAST meter of a SMS is removed (in the sense of removed from the Certified Products List (CPL), it may still be physically at the premises). In analogy to the creation of the SMS, the SMS ceases to exist. In such a case the SMS state should be set to "Suspended".

### 2.2 Current State

The "Active" state is applicable when a SMS is commissioned. Suppliers and DNOs have noted that the "Active" state is retained even when all meters are physically removed from the premises, and this is a significant issue when it comes to assess whether a Smart Metering Services are possible. In the sense of the SEC there is no longer a functional SMS at the premises.

SMI Device States can be mapped to the Service Flag states as shown following.



Most of the SMI states do not map to the DCC Service Flag, which makes it difficult for the DNOs and Suppliers to track status.

## 2.3 Existing Rules for the Update of DCC Service Status

Existing DSP rules for changing a DCC Service Status from Active to Not Active are based on the decommissioning of Smart Meters and take into account circumstances of the same Meter Point (MPxN) being allocated to more than one Smart Meter. Hence, in a case where one Smart Meter is being decommissioned while another Smart Meter with the same MPxN remains Commissioned, the DCC Service Status would not be set to Not Active. Checks are also made for cases where a Meter Point association was made in error and is corrected using SRV 8.4 Update Inventory. The current values for DCC Service Status are:

DCC Service Status	Description
Null	The starting position of a Meter Point that is not associated with a device with an 'Installed Not Commissioned' or 'Commissioned' device status and never has been.
Active ("A")	The Meter Point Status "A" requires at least one of the associated meters to have the 'Commissioned' device status in the SMI.
Not Active ("N")	The Meter Point Status "N" indicates that it is not associated with a device with an 'Installed Not Commissioned' or 'Commissioned' device status, but has been at some point.

The current electricity and gas daily Registration Data Provider (RDP) reports only include Meter Points whose DCC Service Status has changed to 'A' since the previous report was run. No DCC Service Status changes to 'N' are reported.

## 2.4 Business Requirements for this Modification

This section contains the considerations and assumptions for each business requirement as provided by the Proposer and SECAS.

Req.	Requirement
1	DCC to implement a method of understanding if there is a Device currently at a premise
2	DCC to have a reliable source of information on the state of DCC Service Flags
3	DCC to implement a new Service Flag state of "N" for Non-Active to inform where a Device has been installed but not commissioned or set to Active

Table 1: Business Requirements for SECMP0077, CR1249

### 2.4.1 Requirement 1: Implement a method of understanding if there is a Device currently at a premise

This requirement obligates the DCC to implement a means of identifying Devices at premises. An active SMS is identified by at least one Metering Device that has been commissioned on the SMS.

For accurate information on the location of an individual smart meter, a combination of DCC Service Status, Meter Point Status and Device Status is required. Information supplied by DCC service flags alone does not suffice.

Currently, the means of identifying Devices is through noting whether a SMS is active or not. This doesn't account for Devices that may have been removed from the SMS or that don't deliver all the smart functionality. Therefore, a more granular approach is required as part of the Modification solution.

Note that SECAS have separately provided the following supporting information for this requirement: *A clarification on how the DCC Service Flag state "Suspended" currently works is required.*

#### **2.4.2 Requirement 2: To have a reliable source of information on the state of DCC Service Flags**

This requirement obligates the DCC to provide reliable and consistent updates on the state of Service Flags. Currently some Service Flags that have been set to the state of the SMS that are inaccurate. SEC Parties have noted that this inaccuracy has made the switching process of Smart Meters and other Devices harder to complete. It also may result in Suppliers mis-selling a service to consumers if the Service Flag misinforms the Supplier of which services they can provide to the consumer. With reliable information of DCC Service Flags being an integral part of Ofgem's Switching Programme plans, this is required as part of the Modification Proposal's solution.

Note that SECAS have separately provided the following supporting information for this requirement:

- *The Withdrawal of devices has been removed from the SEC; in DUIS the corresponding Service Request 8.5 has been modified so that no DCC user is entitled to use this Service Request. As a consequence it is not possible for devices to enter the SMI status of "Withdrawn". The DCC Service Flag "Withdrawn" is not possible since it would require that all meters are set to the SMI state "Withdrawn".*
- *The DCC Service Flag state "Withdrawn" must be removed.*

#### **2.4.3 Requirement 3: To implement a new Service Flag state of "N" for Non-Active to inform where a Device has been installed but not commissioned/set to Active**

This requirement obligates the DCC to create a new DCC Service Flag state of "N" for Non-Active. The "N" flag will be added as a new state to the existing D0350 Data Flow.

SEC Parties have identified that after a SMS is fully operational, the flag is set to A. However, the flag state has not changed on these systems, despite having had Devices removed from the system – meaning these should have been changed to either W or S. The proposed N flag would be used to distinguish between Devices that were installed in premises, but are not fully operational. The Device will be set to N until it can deliver the full range of functionality when it will be set to A.

Note that SECAS have separately provided the following supporting information for this requirement:

- *The SEC doesn't currently specify what state the DCC Service Flag should be set to for most of the SMI states which haven't been covered in the previous slides.*
- *The suggestion is to add a new state to the DCC Service Flag called "Non-Active" abbreviated as "N". This state will be used to indicate whether all meters on the SMS are in one of the following SMI states:*
  - *InstalledNotCommissioned*
  - *Decommissioned*
  - *Recovery*



- Recovered

*Note that meters on the SMS can have different SMI states; they don't need to be in the same state for the DCC Service Flag "Non-Active" to apply.*

## 2.5 Working Group Update

Following reviews with the Working Group, the DCC was directed to provide a Full Impact Assessment which included a solution against the originally proposed business requirements (DCC Service Flags 'A', 'N' and 'I').

## 2.6 Business Case

The Modification looks to address the issue of incomplete mapping of Devices states, and potential misalignments between data used for switching held in the Smart Metering Inventory (SMI), the Master Registration Agreement (MRA) for electricity meters and Xoserve for gas meters.

Currently the SMI does not have a full and accurate picture of the Smart Meters at premises. For example, Suppliers and Network Parties have noted the "Active" state is retained even when all meters are physically removed from the premises. This is an issue when it comes to assess whether Smart Metering Services are possible, or in the sense of the SEC, where there is no longer a functional SMS at the premises.

In the current state, there is an impact to Network Operators of being unable to handle alerts from affected Devices correctly, and on potential Suppliers to premises.

If a customer wants to switch Suppliers, their tariff will be based on the information in the SMI. However if the customer's actual meter configuration does not match this information, it might not be possible to complete a switch or the customer might default onto a different tariff causing financial loss. In such cases, Suppliers may have to carry out an expensive site visit to determine the meter type and state at a customer premises, and both waste significant time and inconvenience a customer, in remedying the problem. The reputational damage to Suppliers, the Energy Industry and Smart Metering Programme could be substantial in these cases.

## 2.7 DCC Service Status and Device Status

The DCC Service Status refers to a Meter Point, which may be an MPAN or MPRN (commonly referred to as a MPxN):

- Within the DSP, it is changed to Active when it is first associated with a Commissioned Smart Meter. At that point the change in status is communicated to the relevant RDP via an outgoing data flow (D0350 for electricity and the DXI equivalent for gas);
- There is an additional status Withdrawn that was intended for use when the Service Opt-Out Service Requests were used. Since those Service Requests are no longer available via DUIS that is now irrelevant: in the current implementation, the DCC will never inform the RDPs of a change in DCC Service Status after changing it to Active;
- The flows to the RDPs also support a DCC Service Status of Suspended, but as it is not possible to suspend a MPxN (only a device) this status is also never used currently.
- Device Status refers to an individual Device, which may be a Smart Meter or other Device Type. Examples of Device Status include Pending, Installed Not Commissioned, Commissioned, Decommissioned, Suspended and Recovery.



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The statuses are communicated in different ways:

- DCC Service Status is not made available to DCC Service Users by the DCC directly, e.g. it is not included in Self Service Interface (SSI) screens or DUIS Service Requests. The status is available via industry Registration Data processes (D0350 and DXI).
- Device Status is made available to DCC Service Users via the functions in SSI screens and the DUIS Service Request 8.2 Read Inventory.

It should be noted that DSP has already implemented an additional DCC Service Status 'N' meaning "Not Active", which is maintained within the SMI but, as this is not currently a valid value in Registration Data flows, cannot be exported.

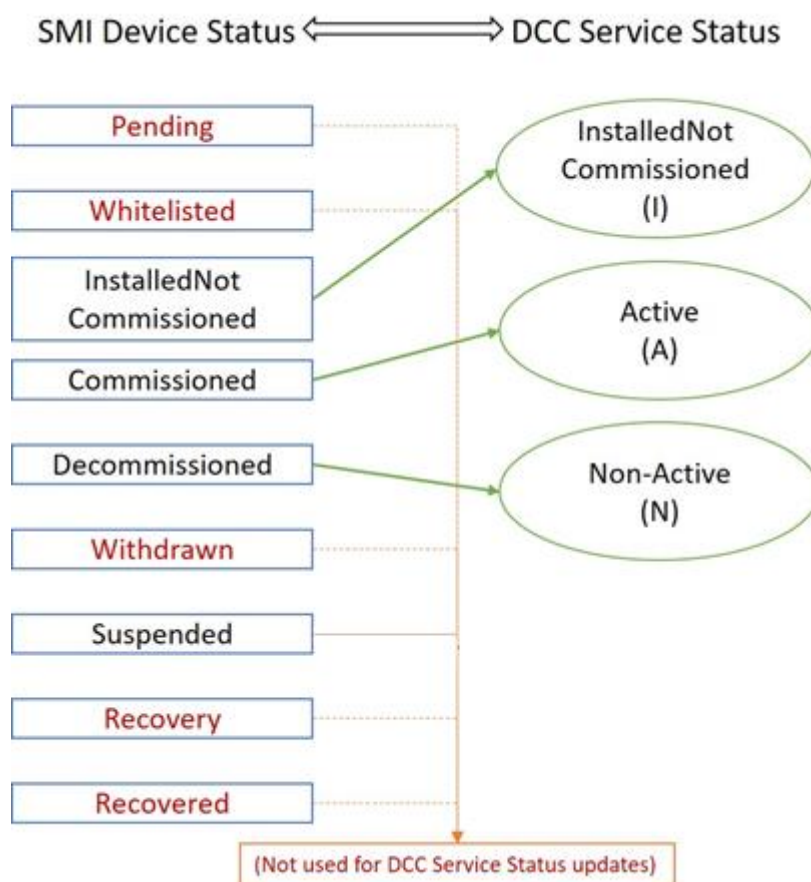
### 3 Solution Overview

The requirement is to include two new DCC Service Status values in the outgoing Registration data flows for electricity and gas:

- I – where a MPxN is associated with meters, but all meters are in an 'Installed Not Commissioned' state
- N – where a MPxN has been, but is no longer, active and associated with any meters

The requirements apply to SMETS1 and SMETS2 meters and above.

The following diagram shows the revised list of DCC Service Statuses and the corresponding Device (Meter) Statuses that trigger switching to those DCC Service Statuses.



**Figure 1: Solution Overview, Mapping Device Status to DCC Service Status**

The solution will involve implementing the new DCC Service Status Installed Not Commissioned ("I"), resulting in a revised set of values as below. Note where a Meter Point is linked to a Smart Meter with a 'Whitelisted' device status, this is ignored in the following determination:

DCC Service Status	Description
Null	The starting position of a Meter Point that is not associated with a device with an 'Installed Not Commissioned' or 'Commissioned' device status and never has been.
Installed Not Commissioned ("I")	The Meter Point Status "I" requires all the associated meters to have the 'Installed Not Commissioned' device status in the SMI.

DCC Service Status	Description
Active ("A")	The Meter Point Status "A" requires at least one of the associated meters to have the 'Commissioned' device status in the SMI.
Not Active ("N")	The Meter Point Status "N" indicates that it is not associated with a device with an 'Installed Not Commissioned' or 'Commissioned' device status, but has been in the past.

It should also be noted that changing the Device Status of Smart Meters to 'Recovery' or 'Recovered' does alter the DCC Service Status in related Meter Points.

The daily RDP status report for Electricity and Gas currently includes any Meter Points whose DCC Service Status has changed to 'A' since last reported. The report will now also include any Meter Points whose DCC Service Status has changed to 'N' or to 'I' since last reported. Note: The report will continue to exclude those Meter Points with a status of 'Null'.

In addition to being informed of Meter Points that have at least one commissioned Smart Meter, Registration Data Providers will be informed of Meter Points that:

- have Smart Meters installed but not yet commissioned
- have had but no longer have Smart Meters installed

Two feature switches will be introduced by which the new RDP statuses of 'I' and 'N' will be included in the daily RDP reports, one for Gas and one for Electricity. It is assumed that the new functionality will be enabled only when all RDPs for a given energy type are in a position to receive the new DCC Service Statuses. A third feature switch will control the point at which the processing for the new status of 'I' is introduced into the DSP.

The ESI reports that use the DCC Service Status as a filter criteria are the following:

- ESI-017 UITMR Mandated Smart Metering Systems, SEC Party by Energy Participant Report
- ESI-018 Post-UITMR Enrolled Smart Metering Systems, SEC Party by Energy Participant Report
- ESI-022 UITMR Enrolled Non-Domestic Premises, SEC Party by Energy Participant Report
- ESI-031/i Meter Point Registration Extract
- ESI-032/i Meter Point Extract – also reports DCC Service Status (only 'A')
- ESI-033/i Premises Extract

### 3.1 Data Update Utility

A one-off data update utility will be provided to catch up on the backlog of those MPxNs that should have an 'I' DCC Service Status. For each ESME and GSME that is in an 'Installed Not Commissioned' state, the utility will:

- Check whether the ESME/GSME is associated with one or more MPxNs
- For each MPxN associated with the ESME/GSME, if it has a DCC Service Status of 'N' or 'Null', update it to 'I' and update the DCC Service Status change date, such that it will be included in the next daily RDP report.

The update utility will record a change in DCC Service Status to 'I' for those Meter Points that are associated with Smart Meters that are all in a status of 'Installed Not Commissioned', for them to be picked up once the above RDP reporting functionality described in section 3.5.4 goes live. This utility is to be run soon after the introduction of the change for each energy type.

When the new functionality provided by this Modification goes live for a given energy type, all Meter Points where the DCC Service Status is 'I' or 'N' in the DSP Inventory will be picked by the first run for that energy type. The performance risk associated with this has been considered: Research on Production data shows that, at the time of submission of this FIA, there are approximately 90,000 Meter Points with DCC Service Status 'N' spread across all of the RDPs (for comparison, there are approximately five million live Smart Meters). Further research shows that currently, on a given day, there are around 60,000 Smart Meters with a device status of 'Installed Not Commissioned', where some, but not all of which would result in the DCC Service Status being updated to 'I'. It is assumed that the receiving RDPs will be able to accommodate the one-off increase in the number of reported MPxNs whose DCC Service Status have changed.

The update utility is to be run separately for electricity and gas at a time to be agreed with the DCC and RDPs.

Note this utility is one of the factors that has increased the cost previously quoted in the PIA.

### 3.2 Impact of Core Solution on S1SPs

The SMETS1 Service Providers (S1SP) Data Extracts and web services that include the DCC Service Status are as follows:

- S1SPM-F09 Meter Point Extract
- N7 RequestIndividualRegistrationData Response

The DCC Service Status values currently recognised by the S1SPs are 'A', 'N' and 'W'. The newly added status 'I' is not a recognised by S1SPs as a valid DCC Service Status - DCC Service Status is set as 'Null' for new Smart Meters prior to commissioning. In order to avoid the impact of introducing the new DCC Service Status 'I' on S1SPs, DSP will map 'I' to 'Null' in the relevant data extracts and web service requests.

### 3.3 Impact on the Switching Programme

Currently the only related message sent from the DSP to the Switching Solution (CSS) is the CommHubLink message and this only contains information to highlight that a meter point (MPxN) is associated or joined to a specific Comms Hub ID. There is no additional device status information and as CSS does not maintain any device information the actual status of the device or SMS is not required by CSS. The changes in this SEC Modification are focused on the DCC Status Update files that are sent to the DNOs via the existing RDP file transfer interface. This outbound FTP interface will remain active after CSS goes live.

### 3.4 Deliverables

The deliverables of this Modification are described in the table below.

Phase Deliverables	Deliverable	Changes Required
Design	SD4.3.2 Registration Systems Interface Design Specification – Gas	Update to DCC Service Flag values allowed (note: No equivalent change is required for the electricity interface document)

		as it references the MRASCO <sup>1</sup> flows).
	SD2.2.1 IE Functional Specification	Changes to post processing for Service Requests and Device Alerts, updates to processing of the RDP, ESI and S1SP interfaces.
	SD2.2.1.4 – Data Management Component Design Specification (parts 1 and 2)	Changes to reference data, post processing and processing for the RDP, ESI and S1SP interfaces.
<b>PIT Completion</b>	System Test and FAT Completion Report	To be created

**Figure 2: DSP Deliverables**

## 3.5 Impact on DSP Components

The following sub-systems and components of the DSP are impacted by this change.

### 3.5.1 Registration Gateway

The outgoing Registration Data interface (daily DCC Service Status report) for both electricity and gas require updating to include the DCC Service Status values of 'I' and 'N'. The inclusion of the new values will be controlled by a feature switch for each energy type.

### 3.5.2 Data Management

Data Management requires modification to the post processing of Service Requests and Alerts such the determination of DCC Service Status and flagging for RDP notification will be changed to accommodate the new 'I' status.

On building the response to an N7 RequestIndividualRegistrationData response from an S1SP, if the DCC Service Status of the MPxN of the response is 'I', then Data Management will map it to 'Null'.

### 3.5.3 Data Management - Registration

The DCC Service Status update file processing for electricity and gas will be modified to not only include those MPxNs that have had a DCC Status update to 'A' but also to include those that have had a DCC Service Status update to 'I' or to 'N'.

The Modifications are controlled by a separate feature switch for electricity and gas.

### 3.5.4 Reporting

The S1SPM-F09 Meter Point Extract processing will be modified such that any Meter Points to be included that have a DCC Service Status of 'I' will have the value mapped to 'Null'.

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<sup>1</sup> MRASCO is the Meter Registration Agreement Service Company

### **3.5.5 Reference Data**

The Reference data will be updated to include three new feature switches to control the point at which:

- Service Request/Device Alert post processing is updated to accommodate the new DCC Service Status of 'I'. This includes the additional processing for S1SP web services and ESI reporting.
- DCC Service Status updates of MPANs to 'I' and 'N' are sent to electricity RDPs.
- DCC Service Status updates of MPRNs to 'I' and 'N' are sent to gas RDPs.

## **4 Impact on DCC Systems, Processes, and People**

This section describes the impact of SECMP0077 on DCC's Services and Interfaces that impact Users and/or Parties.

### **4.1 Impact on DSP Services**

The Services team will be required to implement the one time data update activity for each energy type to update the DCC Service Status to 'I' for those MPxNs that are associated with devices that have an 'Installed Not Commissioned' status, by running the 'Data Update Utility' described in section 3.1. A small amount of early life support following the introduction of the change for each energy type will also be required.

### **4.2 Technical Specifications**

There are no changes to the schema or structure of DUIS, but some wording changes to DUIS.

### **4.3 Impact on Security**

The DSP Security Assurance team has reviewed this change. There is a notable change to processing logic and checks of CGI Instant Energy (the S1SP) and associated interfaces, but no change to DUIS (other than wording) and no new communication paths or infrastructure components. Therefore, there is no material impact on the DSP security implementation. The Security Assurance team will provide general security oversight throughout the implementation in accordance with DSP's contractual requirements.

No additional Penetration Testing will take place as a result of this change, on the basis that:

- There are no material changes to DSP interfaces
- There are no material changes to the security implementation
- There is no new infrastructure being introduced

As a result of the above, there is no requirement to update the Protective Monitoring implementation.

### **4.4 Impact on Processing, Storage or Transmission of DCC Data**

This change does not materially increase processing, data storage or data exchange within the DSP solution; therefore, it is not thought that this change on its own warrants the procurement of additional infrastructure.

Note that the aggregated impact of many such changes to the DSP solution will ultimately result in a reduction of the available processing headroom assumed as part of the original DSP agreement. As such, DSP reserves the right to raise a Change Request for the provision of additional infrastructure if the DCC Data System experiences performance problems that are the direct result of such changes

### **4.5 Impact on Safety**

Industry is dependent on accurate and up-to-date DCC Service Status information for managing device alerts and change of supplier operations, which carry indirect systems safety risks. Instant Energy sends Daily DCC Service Status Update Files (Gas and Electricity) to notify RDPs of changes in DCC Service Statuses for meter points they administer. If these files contain incorrect



information, then external RDP systems may not be updated to reflect changes to the DCC Service Status for MPxNs (hazard SS08: "DSP interfaces incorrectly with external safety related systems"). The safety risks associated with Instant Energy sending incorrect DCC Service Statuses to RDPs, and the impact of incorrect registration data on switching operations are assessed in the DSP FMECA (DQ.0019).

DSP plans to discharge its safety risk assessment and management responsibilities through update of the Safety Case, and implementation of suitable and sufficient mitigations in its solution to reduce the risks to acceptable levels. DSP expects that suitable and sufficient external mitigations will be implemented by DCC, Service Users and other responsible authorities in line with their legal and licensed safety obligations, to allow for continued safe operation of the DSP solution in its wider energy supply business environment - e.g. checks on DCC Service Statuses for meter points, dependence on industry registration data for change of supplier operations.

#### **4.6 Impact on Performance and Infrastructure**

There will be no change to Performance and Infrastructure as a result of this Modification.

#### **4.7 Impacts on Resilience and Disaster Recovery**

There will be no change to Resilience, the Disaster Recovery solution or BCDR procedures as a result of this Modification.

#### **4.8 Impacts on Interfaces**

This Modification requires updates to the electricity and gas registration interfaces.

#### **4.9 Transition to Operations (TTO) Approach**

No TTO-specific charges related to the DSP have been included in this FIA on the basis that it is relatively small. It is assumed that other larger or more complex Change Requests will include partial provision for TTO and that the overall release CR will address any collective shortfall.

#### **4.10 Application Support**

The Application Management Support team are responsible for the provision of application level support for the DCC Data System application.

It is not expected that this new functionality will result in an increase in service calls.

## 5 Testing Considerations

This Full Impact Assessment includes the cost to develop, fully test and deliver this SEC Modification.

### 5.1 Pre-Integration Testing

Pre-Integration Testing (PIT) will be required to align DSP functionality and the functionality described above. The PIT phase of implementation will be subject to standard test phases and level of DCC assurance as defined in previous releases. Specifically, the development team will carry out unit testing and the build will be subject to continuous build and automated testing to identify build issues at the earliest opportunity. The implementation team will carry out system testing consisting of positive and negative path testing which will culminate in a short period of Factory Acceptance Testing (FAT), witnessed by DCC test assurance at DSP offices. The FAT tests will be a subset of System Tests.

Acceptance will be defined by:

1. An agreed set of design documentation;
2. DCC approving the Factory Acceptance Testing outcome in accordance with pre-agreed criteria, which shall not be unreasonably delayed or withheld;
3. Meeting Schedule 6.2 PIT exit criteria;
4. Approval for a MAC to be issued will be authorised by DCC's Test Assurance Board.

### 5.2 System Integration Testing and User Integration Testing

The SIT phase of testing will be aligned with other Modifications and Change Requests in the November 2021 release.

This Modification impacts both SMETS1 and SMETS2. However the new functionality does not need to be tested against each Device Meter Combination (DMC) or repeated for each CSP.

SMETS1 testing will include:

- Any DMCs from CGI IE and Secure and FOC to be used as Device Sets
- Brand new device sets not migrated as yet
- Two dual fuel Active Sets and One Single Fuel Active Device Set for FO

For SMETS2 testing, the test execution is to be spread across the different CHF types and will require at least four new dual device sets which are Not Installed and Not Commissioned.

The scope of this testing will be detailed in a heatmap and Solution Test Plan associated to the release that this will be delivered against, as SIT completes Solution Test Plans for a SEC Release, and not for individual CRs. This will be included as part of the November 2021 SEC Release.

Following each of the SMETS1 and SMETS2 tests, the ESI reports listed at the end of Section 3 will be executed, to check that the DCC Service Status is reflected correctly in these reports for the Device Sets under test.

There is no requirement to test this Modification in the UIT environments.

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### **5.3 Application Support**

It is assumed that this change will not result in a material increase in support required however an allowance has been included to allow knowledge transfer to the Application Support team to ensure any issues can be supported.

## 6 Implementation Timescales and Releases

This Modification was expected to be included in a SEC release in November 2021. Implementation timescales will be finalised as part of the relevant SEC Release Change Request.

### 6.1 Change Lead Times and Timelines

From the date of approval (in accordance with Section D9 of the SEC), to implement the changes proposed DCC requires a lead time of approximately **8 months**.

The broad breakdown of the testing regime is shown in the following table in months after an approval decision date (D).

Phase	Duration
SECAS agreement on scope of release	
CAN signature	D + 1 Month
Design, Build and PIT Phase	4 Months
SIT Phase (functional changes only), aligned with Release Sit Dates	2 Months
Transition to Operations and Go Live	D + 8 Months

### 6.2 SEC Release Allocation and Other Code Impacts

The allocation to any release may be dependent on other Modification timings and the suitability of a release. No functionality overlaps with other Modifications has been identified.

SECMP0077 is a cross-Code impacting change that impacts other Codes beyond the SEC as follows:

- Changes to the Data Transfer Catalogue (DTC), which sits under the Master Registration Agreement (MRA) and Retail Energy Code (REC).
- The UK Link Systems impact will require a change proposal to be raised and implemented by their Data Services Contract (DSC) Delivery Sub-Group.
- Changes to Xoserve's systems, the Central Data Service Provider for Great Britain's gas market funded primarily under the Uniform Network Code (UNC).

In terms of the MRA, the D0350 flow, an industry Registration Data process, currently used by the MRA will be impacted by the proposed status changes. This flow is used so that the DCC notifies an MPAS that it is providing communications services to a metering point and provides any data updates required for that MPAS. As the DCC is only limited by how many flows are needed (1 MPAN/MPRN = 1 flow) in an update and with MRA saying there is no cap on the content or how many flows can be placed in a single file update, this result could lead to thousands of Devices potentially changing Flag state all at once.

Xoserve have confirmed that the impacts of this Modification are limited to changes to the UK Link Manual to set out guidance surrounding the changes to any flags and consequential impacts on RDPs. Xoserve additionally stated that to mirror the impacts of this Modification, a proposal has been raised through Xoserve to ensure that all impacted codes facilitate their changes on the same date. This proposal is called XRN 5142 – New Allowable Values for DCC Service Flags in DXI File from DCC, and as of August 2020 was in its Initial Review stage.

Implementation of the SECMP0077 solution must therefore be concurrent across all the impacted arrangements.

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### 6.3 Impact on Contracts and Schedules

Contract updates will be required for this change. The detailed updates will be determined as part of the resulting Contract Amendment Note (CAN). Updates will be required to the following schedules:

- Schedule 2.1: Updates to Part E Clause 43.3 to reflect new DCC Service Status values of 'I' and 'N';
- Schedule 6.1: Inclusion of two new milestones referencing completion of PIT and SIT for this change as detailed in section 6.2
- Schedule 7.1: Payment values associated with the Schedule 6.1 milestones.

There will be no change to Schedule 2.2 SLAs due to this Modification.

## Appendix A: Risks, Assumptions, Issues, and Dependencies

The tables below provide a summary of the Risks, Assumptions, Issues, and Dependencies (RAID) observed during the production of the Full Impact Assessment. DCC requests that the Working Group considers this section and considers any material matters that have been identified. Changes may impact the proposed solution, implementation costs and/or implementation timescales.

### Risks

None at this time.

### Assumptions

These assumptions have been used in the creation of this Full Impact Assessment. Any changes to the assumptions may require DCC to undertake further assessment, prior to the contracting and implementation of this change.

Ref	Description	Status/Mitigation
D77-A1	The modifications required to the electricity and gas registration interfaces have been agreed with industry and the specifications will have been updated (including the MRASCO data flow) prior to the commencement of work for this change.	Accepted
D77-A2	There is no requirement to enable the new functionality separately for each individual RDP. The new functionality will be introduced only when all RDPs for a given fuel type are able to receive the new DCC Service Status values.	Accepted
D77-A3	The introduction of this change for a given energy type will result in a one off increase in the number of Meter Points whose change in DCC Service Status is to be notified to RDPs of that energy type. It is assumed that the receiving RDPs will be able to accommodate this increase. If this is not the case, then further consideration will need to be given to limit the number of Meter Points sent to RDPs as part of a separate CR.	Accepted
D77-A5	It is assumed that SIT integration testing will be required with at least one RDP for electricity and one RDP for gas and that this SIT testing will form part of the November 2021 Release CR.	Accepted
D77-A6	It is assumed that no UIT/UTS testing is required for the change.	Accepted but there may be testing of the other code bodies required
D77-A7	There is no requirement for a penetration test and no change to the DSP's Protective Monitoring solution	Accepted
D77-A8	The introduction of this change for a given energy type will result in a one off increase in the number of Meter Points whose change in DCC Service Status is to be notified to RDPs of that energy type. It is assumed that the receiving RDPs will be able to accommodate this increase. If this is not the case, then further consideration will need to be given to limit the number of Meter Points sent to RDPs as part of a Modification.	Accepted, but that note that SECAS and the MRA have indicated this assumption is correct.

## Issues

None at this time.

## Dependencies

Reference	Dependency	Implication if dependency not met	Status
D77-D1	Changes to the electricity (D0350) and gas (DXI) data flows to support the new functionality are required to be agreed with all stakeholders. This is the responsibility of the flow owners and must be completed in time for the change to go into Production.	Flows must be agreed or the Modification cannot be implemented	Accepted
D77-D2	The timing of the introduction of the change and of the running of the data update utility requires agreement between the DCC and all RDPs.	The data update utility should only be run when all impacted parties agree.	Accepted
D77-D3	SECMP077 is a cross-Code impacting change that impacts other Codes beyond the SEC. It will require changes to the Data Transfer Catalogue (DTC), which sits under the Master Registration Agreement (MRA)/Retail Energy Code (REC). It also requires changes to Xoserve's systems, which are funded primarily under the Uniform Network Code (UNC).	Implementation of the SECMP0077 solution must be concurrent across all the impacted arrangements. If not, the Modification should not go live.	Accepted



## Appendix B: Glossary

The table below provides definitions of the terms used in this document.

Acronym	Definition
CAN	Contract Amendment Note
CR	DCC Change Request
CSP	Communication Service Provider
DCC	Data Communications Company
DMC	Device Meter Combination
DSP	Data Service Provider
DTC	Data Transfer Catalogue
DSC	Data Services Contract
DUIS	DCC User Interface Specification
ESME	Electricity Smart Metering Equipment
FAT	Factory Acceptance Testing
FIA	Full Impact Assessment
FMECA	Failure Modes Effects Criticality Analysis
GSME	Gas Smart Metering Equipment
MPAN	Meter Point Administration Number (Electricity supply point)
MPRN	Meter Point Reference Number (Gas supply point)
MPxN	Generic term for MPAN or MPRN
MRA	Meter Registration Agreement
MRASCO	Meter Registration Agreement Service Company
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
RDP	Registration Data Provider
REC	Retail Energy Code
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SMETS	Smart Metering Equipment Technical Specification
SP	Service Provider
SSI	Self Service Interface
S1SP	SMETS1 Service Provider
UIT	User Integration Testing
UNC	Uniform Network Code
UTS	User Testing Services