

MP242 ‘Change to Operational Metrics to Measure on Success’

Annex A

Business requirements – version 0.4

About this document

This document contains the business requirements that support the solution(s) for this Modification Proposal. It sets out the requirements along with any assumptions and considerations. The Data Communications Company (DCC) will use this information to provide an assessment of the requirements that help shape the complete solution.

1. Business requirements

This section contains the functional business requirements. Based on these requirements a full solution will be developed.

Business Requirements																																								
Ref.	Requirement				Responsible for delivery																																			
1	This modification will capture the consumer experience and pinpoint areas of concern through determining the success or failure of an agreed set of Service Reference Variants (SRVs).				DCC																																			
2	The Data Communications Company (DCC) is to measure the success and execution of an agreed set of Business Processes and SRVs. The agreed set of Business Processes are: • Install and Commission¹ • Change of Supplier (Gain) • Pre-Payment (note: SRV 2.2 will be reported on as its own individual Business Process) • Update Device Firmware • Meter Reads • Tariff Updates				DCC																																			
3	The DCC will measure against the following conditions to determine success: <table><tr><th>Scenario</th><th>DUIS Response Code</th><th>GBCS Execution Status</th><th>DCC Outcome</th><th>Business Outcome</th></tr><tr><td>SRV passes DSP validation</td><td>I99</td><td>N/A</td><td>ACK</td><td>N/A</td></tr><tr><td>SRV fails DSP validation</td><td>E1 – E100*</td><td>N/A</td><td>Success</td><td>Failure</td></tr><tr><td>Failed to send request to CSP/S1SP</td><td>E20</td><td>N/A</td><td>Failure</td><td>Failure</td></tr><tr><td>No response from device</td><td>E21</td><td>N/A</td><td>Failure</td><td>Failure</td></tr><tr><td>No response from device at Future Dated execution time (T)</td><td>E30</td><td>N/A</td><td>Failure</td><td>Failure</td></tr><tr><td>Failed to send request to CSP/S1SP or No response from device for Scheduled or</td><td>E31</td><td>N/A</td><td>Failure</td><td>Failure</td></tr></table>				Scenario	DUIS Response Code	GBCS Execution Status	DCC Outcome	Business Outcome	SRV passes DSP validation	I99	N/A	ACK	N/A	SRV fails DSP validation	E1 – E100*	N/A	Success	Failure	Failed to send request to CSP/S1SP	E20	N/A	Failure	Failure	No response from device	E21	N/A	Failure	Failure	No response from device at Future Dated execution time (T)	E30	N/A	Failure	Failure	Failed to send request to CSP/S1SP or No response from device for Scheduled or	E31	N/A	Failure	Failure	DCC
Scenario	DUIS Response Code	GBCS Execution Status	DCC Outcome	Business Outcome																																				
SRV passes DSP validation	I99	N/A	ACK	N/A																																				
SRV fails DSP validation	E1 – E100*	N/A	Success	Failure																																				
Failed to send request to CSP/S1SP	E20	N/A	Failure	Failure																																				
No response from device	E21	N/A	Failure	Failure																																				
No response from device at Future Dated execution time (T)	E30	N/A	Failure	Failure																																				
Failed to send request to CSP/S1SP or No response from device for Scheduled or	E31	N/A	Failure	Failure																																				

¹ Note, although some of the SRVs listed under Install and Commission are applicable to SMETS1, the rollout of SMETS1 Devices has ended and therefore the overall Install and Commission business process is not applicable to SMETS1.

Business Requirements						
Ref.	Requirement					Responsible for delivery
	Future Dated SRV (T)					
	Failed to send request to ECoS Party (T)	E66	N/A	Failure	Failure	
	No response from ECoS Party (T)	E67	N/A	Failure	Failure	
	Response received – GBCS Success	I0	Success	Success	Success	
	Response received – GBCS Failure	I0	Failure	Success	Failure	
4	The conditional success / failure will be agreed by the Working Group before the commencement of the DCC Full Impact Assessment and any additional conditional status will be agreed by the Panel (delegated to the SEC Operations Group).					Working Group
5	If a timeout occurs before an SRV is received by the User, it will automatically be categorised as a failure.					DCC
6	When measuring the success and failure of the agreed Business Processes, the DCC is to provide reporting that includes retries and also a separate report without for transparency.					DCC
7	The data included in the report will be classified as a Business Process Indicator.					DCC

2. Considerations and assumptions

This section contains the considerations and assumptions for each business requirement.

2.1 General

This solution will be applied to Smart Metering Equipment Technical Specifications (SMETS)1 and SMETS2 Devices.

2.2 This modification will capture the consumer experience and pinpoint areas of concern through determining the success or failure of an agreed set of Service Reference Variants (SRVs).

The Proposer has stated that the current reporting captured under the PMR does not reflect the consumer experience. The intent of this modification is to provide additional reporting from a consumer-centric perspective, to help identify areas where performance may be improved. During the Preliminary Assessment, the DCC will investigate the proposed delivery time of the reports with a view to aligning them with the Business Process Indicator reports.

2.3 Requirement 2: The Data Communications Company (DCC) is to measure the success and execution of an agreed set of Business Processes and SRVs. The agreed set of Business Processes are:

- **Install and Commission**
- **Change of Supplier (Gain)**
- **Pre-Payment**
- **Update Device Firmware**
- **Meter Reads**
- **Tariff Updates**

The six Business Processes and the SRVs that are to be reported on are as follows:

- **Install and Commission**
 - 8.11 Update HAN Device Log
 - 6.21 Request Handover of DCC Controlled Device (Update Supplier Certificates)
 - 8.1.1 Commission Device
 - 8.7.2 Join Service (Join GPF with GSME)
 - 6.20.1 Set Device Configuration' (Import MPxN)
 - 1.1.1 Update Import Tariff (Primary Element)
 - 6.8 Update Device Configuration (Billing Calendar)
 - 8.14.1 Communications Hub Status Update Install Success
- **Change of Supplier (Gain)**
 - 6.23 Update Security Credentials (CoS)

- 1.1.1 Update Import Tariff (Primary Element)
- 6.8 Update Device Configuration (Billing Calendar)
- Pre-Payment
 - 1.6 Update Payment Mode (Payment Mode = Prepayment)
 - 2.1 Update Prepay Configuration
 - 2.2 Top Up Device (Update Balance with positive value) (note: this SRV will be reported on as its own individual Business Process)
- Update Device Firmware
 - 11.1 Update Firmware
 - 11.2 Read Firmware Version
 - 11.3 Activate Firmware (Individual SR for each GUID for firmware activation)
 - 11.4 Update PPMID Firmware
- Meter Reads
 - 4.6.1 Retrieve Import Daily Read Log
 - 4.6.2 Retrieve Export Daily Read Log
 - 4.8.1 Read Active Import Profile Data
 - 4.8.2 Read Reactive Import Profile Data
 - 4.8.3 Read Export Profile Data
 - 4.10 Read Network Data
 - 4.17 Retrieve Daily Consumption Log
- Tariff Updates
 - 1.1.1 Update Import Tariff (Primary Element)
 - 1.2.1 Update Price (Primary Element)

The Proposer has indicated that these six Business Processes are critical to the end consumer experience. During refinement of the business requirements, it was agreed at the Operations Group (OPSG) that SRV 2.2 'Top Up Device' will be a separate Business Process to the two other Pre-Payment SRVs. This is due to the increased consumer impact of SRV 2.2.

2.4 Requirement 3: The DCC will measure against the following conditions to determine success:

Scenario	DUIS Response Code	GBCS Execution Status	DCC Outcome	Business Outcome
SRV passes DSP validation	I99	N/A	ACK	N/A
SRV fails DSP validation	E1 – E100*	N/A	Success	Failure
Failed to send request to CSP/S1SP	E20	N/A	Failure	Failure
No response from Device	E21	N/A	Failure	Failure
No response from Device at Future Dated execution time (T)	E30	N/A	Failure	Failure

Managed by

Failed to send request to CSP/S1SP or No response from Device for Scheduled or Future Dated SRV (T)	E31	N/A	Failure	Failure
Failed to send request to ECoS Party (T)	E66	N/A	Failure	Failure
No response from ECoS Party (T)	E67	N/A	Failure	Failure
Response received – GBCS Success	I0	Success	Success	Success
Response received – GBCS Failure	I0	Failure	Success	Failure

* excluding E codes following

(T) indicates related to Timeouts

The four conditions will set out the criteria for determining the success or failure of the SRVs included within the six Business Processes. Please note that these conditions may be amended / additional ones added when discussed with the Working Group.

2.5 Requirement 4: The conditional success / failure will be agreed by the Working Group before the commencement of the DCC Full Impact Assessment and any additional conditional status will be agreed by the Panel (delegated to the SEC Operations Group).

The Working Group will review the DCC's completed Preliminary Assessment to determine the criteria for the success or failure of an SRV delivered to the User. If the modification is approved and implemented into the SEC, the Panel (who are likely to delegate to the OPSG may choose to add further conditional statuses. This will likely be through a guidance document to not require further amendments to the SEC.

2.6 Requirement 5: If a timeout occurs before an SRV is received by the User, it will automatically be categorised as a failure.

Due to the DCC's current inability to accurately measure Target Response Times, if a timeout occurs before an Service Request (SR) / SRV / Alert is received by the User, it will be deemed a failure. This will also be discussed with the Working Group.

2.7 Requirement 6: When measuring the success and failure of the agreed Business Processes, the DCC is to provide reporting that includes retries and also without for transparency.

During discussion with the OPSG, it was agreed that the DCC will provide reporting that will factor in DCC Users' retries and also report without them. This will provide transparency to SEC Parties on how retries impact DCC performance. An example of this is a Supplier Party sending the same SRV repeatedly to commission a newly installed Device. DCC will identify the level of impact of this requirement within the Preliminary Assessment. This will be displayed as a measurement of retries against each SRV. The Proposer will then decide if this is to remain before requesting the Full Impact Assessment.

2.8 Requirement 7: The data included in the report will be classified as a Business Process Indicator.

During the Refinement Process, the DCC has stated that categorising the data as measures will likely have high associated costs. As such, the data will remain as indicators.

3. Solution development

This section contains a must-have, should-have, could-have, won't-have (MoSCoW) analysis for the different requirement components to be considered as part of the solution.

MoSCoW Analysis			
Requirement Ref.	Description	Responsible for delivery	MoSCoW
2.1	Reporting against the six Business Processes stated in requirement 2.	DCC	M
2.2	Reporting against all ten Business Processes captured in SEC Section H13.1A.	DCC	C
6	The DCC is to provide reporting that includes DCC Users retrying to send SRVs, and also reporting that excludes retries.	DCC	S

Key

- M = Must have
- S = Should have
- C = Could have
- W = Won't have

4. Glossary

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

Glossary	
Acronym	Full term
DCC	Data Communications Company
OPSG	Operations Group
SEC	Smart Energy Code
SMETS	Smart Metering Equipment Technical Specifications
SR	Service Request
SRV	Service Reference Variant

Contents

A DEFINITIONS AND INTERPRETATION

A1. DEFINITIONS

A1.1 In this Code, except where the context otherwise requires, the expressions in the left hand column below shall have the meanings given to them in the right hand column below:

4G Communications Hub	means a Communications Hub which is capable of using 4G mobile cellular radio technology to connect to the SM WAN.
4G DBT Finance Acceleration Event	means, in respect of each 4G DBT Finance Facility, that: (a) an acceleration of repayment of the indebtedness thereunder occurs such that it is immediately due and payable by the borrower in circumstances where the DCC is liable for the same under the Direct Agreement; or (b) the DCC becomes liable under the Direct Agreement to immediately pay the unamortised asset value (and any associated finance costs in respect) of any assets to which that facility relates.
4G DBT Finance Charges	means, in respect of each 4G DBT Finance Facility, the DCC's charge to recover the applicable 4G DBT Finance Costs (being a subset of the Fixed Charges), in an amount each month determined by the DCC at the time it produces an Invoice for that month (having regard to the requirements of Condition 36.5 of the DCC Licence).
4G DBT Finance Costs	means, in respect of each 4G DBT Finance Facility, the costs the DCC incurs in respect of that facility.
4G DBT Finance Facility	means a facility, other than a Communications Hub Finance Facility, arranged by the DCC or a DCC Service Provider with an Approved Finance Party for the funding of the development costs (including design, build and testing costs) of any solutions or services which DCC procures in order to enable or facilitate its provision and/or operation of 4G Communications Hubs, such costs being incurred in respect of activities undertaken up to the point of volume manufacture of the 4G Communications Hubs (such point as further described in the plan produced pursuant to condition 13B of the DCC Licence), and being costs which DCC is entitled to recover via the Fixed Charges under this Code, including by way of a loan facility, an equity subscription, or an assignment or sale of receivables.
Acceptance Testing	means testing of a software release undertaken by Users in order to determine whether the required specification for that software is met.

Access Control Broker	means the DCC, acting in the capacity and exercising the functions of the Known Remote Party role identified as such in the GB Companion Specification.
Accession Agreement	means an accession agreement entered into pursuant to Section B1 (Accession).
Acknowledgement	means, in respect of a communication sent by a User to the DCC over the DCC User Interface, a communication by the DCC to the User via the DCC User Interface acknowledging receipt of the User's communication.
Additional Electricity Smart Meter	means an Electricity Smart Meter which is installed at premises in such a manner and/or configuration that it: (a) is joined to a Communications Hub Function at the premises; but (b) is incapable of being used for the purposes of determining the quantity of electricity supplied to the premises.
Additional Registration Data	means Electricity Additional Registration Data and Gas Additional Registration Data.
Additional Release Services	has the meaning given to that expression in Section X1.17 (Testing in respect of Additional Release Services).
Additional SR Tests	has the meaning given to that expression in Section X1.17 (Testing in respect of Additional Release Services).
Advanced Meter	in relation to: (a) an Electricity Meter, has the meaning given to that expression in standard condition 39 of the Electricity Supply Licence; and (b) a Gas Meter, has the meaning given to that expression in standard condition 33 of the Gas Supply Licence.
Affected Party	has the meaning given to that expression in the definition of Force Majeure.
Affiliate	means, in relation to any person, any holding company of that person, any subsidiary of that person or any subsidiary of a holding company of that person, in each case within the meaning of section 1159 of the Companies Act 2006.
Alert	has the meaning given to 'Alert' in the GB Companion Specification.

Alert Management Mechanism	means the mechanism applied to Alerts received by the DCC, as described in clauses 17.8-17.10 of the Service Request Processing Document.
ALCS/HCALCS/APC/SAPC Labels List	has the meaning given to that expression in Section F11.1 (ALCS/HCALCS/APC/SAPC Labels List).
Alt HAN Arrangements	has the meaning given to that expression in condition 22.20(e) (Principal contents within the Smart Energy Code) of the DCC Licence.
Alt HAN Charges	means the Fixed Alt HAN Charges calculated in accordance with Section K5A or K6B (as applicable) taken together with the Explicit Charges in respect of the Explicit Charging Metrics at Section K7.5(t) and (u).
Alt HAN Forum	means the body of that name established in accordance with Section Z.1.1 (Establishment of the Alt HAN Forum).
Alt HAN Services	has the meaning given to that expression in Section Z6.1 (Definitions).
Alternate	has the meaning given to that expression in Section C5.19 (Alternates).
Alternative Installation End Date	has the meaning given to that expression in Section A4.2(c) (Derogations).
Alternative Solution	has the meaning given to that expression in Section D6.16 (Alternative Solutions).
Anomalous Event	means, in relation to any System, an activity or event that is not expected to occur in the course of the ordinary operation of that System.
Anomaly Detection Threshold	means: (a) in respect of a User ID used by a User in one or more of its User Roles, a number of communications within a period of time, where both that number and the period of time are set by the User in relation to that User ID; (b) in respect of the DCC (including when acting as a SMETS1 Service Provider), either: (i) a number of communications within a period of time, where both that number and the period of time are set by the DCC; or (ii) a maximum or minimum data value within a communication, where that value is set by the DCC, in each case in accordance with the requirements of Section G6 applying (respectively) to the User or the DCC.

Applicability Period	has the meaning given to that expression in Section A3.29(d) (GB Companion Specification and CPA Security Characteristics).
Applicant	has the meaning given to that expression in Section B1.1 (Eligibility for Admission).
Application Association	has the meaning given to that expression in the Green Book (DLMS UA 1000-2 Ed. 8), published by the DLMS User Association.
Application Fee	has the meaning given to that expression in Section B1.5 (Application Fee).
Application Form	means a form requesting the information set out in Schedule 5 (and which must not request any further information), in such format as the Code Administrator may determine from time to time.
Application Guidance	has the meaning given to that expression in Section B1.4 (Application Form and Guidance).
Application Server	means a software framework that enables software applications to be installed on an underlying operating system, where that software framework and operating system are both generally available either free of charge or on reasonable commercial terms.
Appropriate Permission	means, in respect of a Communication Service or Local Command Service to be provided to a User in respect of a Smart Metering System at a premises that will result in the User obtaining Consumption Data, either: (a) (where that User is the Import Supplier, Export Supplier, Gas Supplier, Electricity Distributor or Gas Transporter for that Smart Metering System) that the User does not need consent to access that Consumption Data in accordance with its Energy Licence, or that the User has consent (whether explicit or implicit) in accordance with the requirements of its Energy Licence; or (b) (where that User is not the Import Supplier, Export Supplier, Gas Supplier, Electricity Distributor or Gas Transporter for that Smart Metering System) that the Energy Consumer has given the User Unambiguous Consent to obtain that Consumption Data and such consent has not been withdrawn.
Appropriate Standard	has the meaning given to that expression in Section G3.28(b) (SMETS1 Smart Metering Systems).
Approved Budget	has the meaning given to that expression in Section C8.13 (Approval of Budgets).

Approved Finance Party	means, in respect of each DCC Finance Facility, the person with whom the DCC arranges the facility, or to whom the DCC accepts payment obligations under the Direct Agreement relating to that facility, as the case may be, and which has (from time to time) been notified by the DCC to the Authority and the Panel as meeting the requirements of this definition.
Associated	means: (a) in respect of a Smart Meter, that the Smart Meter is identified in the Smart Metering Inventory as being associated with a Communications Hub Function; and (b) in respect of any Device other than a Smart Meter or a Communications Hub Function, that the Device is identified in the Smart Metering Inventory as being associated with a Smart Meter or with a Gas Proxy Function, and the expression “ Associate ” shall be interpreted accordingly.
Assurance Certificate	has the meaning given to that expression in Section F2.4 (Background to Assurance Certificates).
Assurance Certification Body	has the meaning given to that expression in Section F2.3 (Background to Assurance Certificates).
Authentication Key	has the meaning given to that expression in the Green Book (DLMS UA 1000-2 Ed. 8), published by the DLMS User Association.
Authorised Business	in relation to the DCC, has the meaning given in the DCC Licence.
Authorised Subscriber	means SECCo, a Party, a Manufacturer or an RDP which is an Authorised Subscriber for the purposes of (and in accordance with the meaning given to that expression in) any of the Certificate Policies.
Authority	means the Gas and Electricity Markets Authority as established under section 1 of the Utilities Act 2000.
Authority Determined Modification	has the meaning given to that expression in Section D2.6 (Authority Determined Modifications).
Authority-initiated Modification	has the meaning given to that expression in Section D2.4 (Authority-initiated Modifications).
Authority-Led Modification Report	has the meaning given to that expression in Section D9A.5 (Authority-Led Modification Report).

Authority-Led Variations	means variations to this Code proposed by the Authority pursuant to a direction under Section D9A (Authority-Led Variations).
Back-Up	means, in relation to Data which is held on any System, the storage of a copy of that Data for the purpose of ensuring that the copy may be used (if required) to restore or replace the original Data; and “Backed-Up” is to be interpreted accordingly.
Bank Guarantee	means an on demand bank guarantee in a form reasonably acceptable to the DCC from a bank with the Required Bank Rating which guarantee has not been breached or disclaimed by the provider and has at least one month left until it expires.
Batched Certificate Signing Request	has the meaning given to that expression in Section L8.2 (SMKI Services: Target Response Times).
BCDR Procedure	means the Business Continuity and Disaster Recovery Procedure.
Bilateral Agreement	means an agreement entered into pursuant to Section H7 (Elective Communication Services) between the DCC and a User.
BSC	means the Balancing and Settlement Code maintained under the Electricity System Operator Licence.
Business Architecture	means the business architecture which is designed to enable Parties to use the Services and/or to enable Parties, Energy Consumers and those acting on behalf of Energy Consumers to access the functionality described in the Technical Specifications.
Business Architecture Document	means a document that describes the Business Architecture.
Business Continuity and Disaster Recovery Procedure	means that part of the Incident Management Policy which describes the business continuity and disaster recovery procedures applicable to the Services.
Business Continuity and Disaster Recovery Test	means a test of the operation of the DCC's disaster recovery and business continuity arrangements applicable to the Services.

Business Continuity and Disaster Recovery Test Schedule	means a document created by the DCC setting out its schedule for undertaking a Business Continuity and Disaster Recovery Test and the likely duration of any such test.
Business Process	means a combination of Service Requests <u>against which the DCC is to report</u> , as described in <u>Section H13.1A or H13.1B (Code Performance Measures) the DCC Performance Indicators Document</u> .
Cash Deposit	means a deposit of funds by or on behalf of the User into a bank account in the name of the DCC, such that title in such funds transfers absolutely to the DCC.
Central Products List	has the meaning given to that expression in Section F2.1 (Central Products List).
Centralised Registration Service	has the meaning given to that term in the Smart Meter Communication Licence.
Certificate	means a Device Certificate, DCA Certificate, Organisation Certificate, OCA Certificate, IKI Certificate or ICA Certificate (or, for the purposes of any Certificate Policy in which the term is defined, it shall have the meaning ascribed to it in that Certificate Policy).
Certificate Policy	means the Device Certificate Policy, the Organisation Certificate Policy, or the IKI Certificate Policy.
Certificate Signing Request	means a request for a Certificate submitted by an Eligible Subscriber in accordance with the SMKI RAPP.
Certified Cyber Professional (CPP)	means the scheme of that name which is administered by NCSC, or any successor to that scheme.
Certified Cyber Security Consultancy (CCSC)	means the scheme of that name which is administered by NCSC or any successor to that scheme.
Certified Products List	means those entries on the Central Products List which identify SMETS2+ Device Models.
CESG	means NCSC (and any reference to CESG in the Code shall be read as a reference to NCSC).

CH Batch Fault	has the meaning given to that expression in Section F9.20 (Liquidated Damages for CH Batch Faults).
CH Batch Fault Payment	has the meaning given to that expression in Section F9.21 (Liquidated Damages for CH Batch Faults).
CH Defect	means, in respect of a Communications Hub, any fault or defect in relation to the Communications Hub (including any failure: to conform in all respects with, and be fit for the purposes described in, the CHTS; to be free from any defect in design, manufacture, materials or workmanship; and to comply with all applicable Laws and/or Directives including with respect to product safety), which is not caused by a breach of this Code by a Party other than the DCC.
CH Fault Diagnosis	has the meaning given to that expression in Section F9.7 (CH Fault Diagnosis).
CH Handover Support Materials	means, in respect of each Region, the SEC Subsidiary Document of that name set out in Appendix H and applying to that Region.
CH Installation and Maintenance Support Materials	means, in respect of each Region, the SEC Subsidiary Document of that name set out in Appendix I and applying to that Region.
CH Order Management System	means that part of the CH Ordering System described as the 'Order Management System' in the CH Handover Support Materials.
CH Ordering System	has the meaning given to that expression in Section F5.20 (CH Ordering System).
CH Post-Installation DCC Responsibility	has the meaning given to that expression in Section F9.6 (Categories of Responsibility).
CH Pre-Installation DCC Responsibility	has the meaning given to that expression in Section F9.6 (Categories of Responsibility).
CH Support Materials	means the CH Handover Support Materials and the CH Installation and Maintenance Support Materials.
CH Type Fault	has the meaning given to that expression in Section F9.16 (Liquidated Damages for CH Type Faults).

CH Type Fault Payment	has the meaning given to that expression in Section F9.19 (Liquidated Damages for CH Type Faults).
CH User Responsibility	has the meaning given to that expression in Section F9.6 (Categories of Responsibility).
Change Board	has the meaning given to that expression in Section D8.1 (Establishment of the Change Board).
Change Board Member	has the meaning given to that expression in Section D8.4 (Membership of the Change Board).
Change Sub-Committee	means the Sub-Committee established, or to whom the Panel has allocated the function of being such a Sub-Committee, pursuant to Section D2A (The Change Sub-Committee).
Charges	means the charges payable to the DCC pursuant to this Code (including pursuant to Bilateral Agreements).
Charging Methodology	means the methodology for determining the Charges, as set out in Section K (Charging Methodology).
Charging Objectives	has the meaning given to that expression in Section C1 (SEC Objectives).
Charging Statement	means, from time to time, the statement prepared by DCC pursuant to Condition 19 of the DCC Licence that is in force at that time.
CHECK	means the scheme of that name which is administered by NCSC, or any successor to that scheme.
Check Cryptographic Protection	means, in respect of any electronic Data, to check the Digital Signature(s) or Message Authentication Code within those Data (as applicable) using: (a) the Public Key contained in the certificate issued by the relevant Certificate Authority associated with the Private Key of the person or device that those Data identify, or imply has generated the Digital Signature; (b) where applicable, the recipient's relevant Private Key; and (c) the relevant algorithm identified in the certificate policy under which the relevant certificates were issued (or, where such certificate or certificate policy does not exist, the appropriate algorithm).
CHTS	means the Communications Hub Technical Specifications.

Citizens Advice	means the National Association of Citizens Advice Bureaux.
Citizens Advice Scotland	means the Scottish Association of Citizens Advice Bureaux.
Code	means this Smart Energy Code (including its Schedules and the SEC Subsidiary Documents).
Code Administration Code of Practice	means the document of that name as approved by the Authority from time to time.
Code Administration Code of Practice Principles	means the principles set out as such in the Code Administration Code of Practice.
Code Administrator	has the meaning given to that expression in Section C7.1 (Code Administrator).
Code Implementation SIT	means the testing undertaken on implementation of this Code that tested the capability of the DCC and the component parts of the DCC Systems together with the Communications Hubs to interoperate with each other and with the RDP Systems.
Code Performance Measure	means a performance measure set out in Section D11.3 (Code Performance Measures), Section H13.1 (Code Performance Measures) or Section L8.6 (Code Performance Measures).
Command	means a communication to a Device in the format required by the GB Companion Specification and which incorporates all Digital Signatures and/or Message Authentication Codes required by the GB Companion Specification (or, in respect of a SMETS1 Device, means an Instruction).
Commercial Activities	includes, in particular, Energy Efficiency Services, Energy Management Services, Energy Metering Services, and Energy Price Comparison Services, in each case as defined in the DCC Licence and in relation to the Supply of Energy (or its use) under the Electricity Act and the Gas Act.
Commissioned	means, in respect of a Device, that: (a) the Device has been commissioned in accordance with the Smart Metering Inventory Enrolment and Decommissioning Procedures or the Transition and Migration Approach Document; and (b) the Device has not subsequently been Decommissioned or Suspended, and " Commission " is to be interpreted in accordance with (a) above. A

Communications Hub shall be considered to be Commissioned where the Communications Hub Function that forms part of that Communications Hub is Commissioned.

Common Test Scenarios Document	means the SEC Subsidiary Document set out in Appendix R.
Communication Services	means the Core Communication Services or the Elective Communication Services.
Communications Hub	means a physical device that includes a Communications Hub Function together with a Gas Proxy Function.
Communications Hub Auxiliary Equipment	means any additional, replacement or spare equipment or packaging (not forming part of a Communications Hub) that may be required by a Supplier Party in relation to the installation, maintenance or return of a Communications Hub, as listed by the DCC on the CH Ordering System from time to time.
Communications Hub Charges	has the meaning given to the expression 'Fixed CH Charges' in Section K (Charging Methodology).
Communications Hub Finance Acceleration Event	means, in respect of each Communications Hub Finance Facility, that: (a) an acceleration of repayment of the indebtedness thereunder occurs such that it is immediately due and payable by the borrower in circumstances where the DCC is liable for the same under the Direct Agreement; or (b) the DCC becomes liable under the Direct Agreement to immediately pay the unamortised asset value (and any associated finance costs in respect) of the Communications Hubs to which that facility relates.
Communications Hub Finance Charges	means, in respect of each Communications Hub Finance Facility, the DCC's charge to recover the applicable Communications Hub Finance Costs (being a subset of the Communications Hub Charges), in an amount each month determined by the DCC at the time it produces an Invoice for that month (having regard to the requirements of Condition 36.5 of the DCC Licence).
Communications Hub Finance Costs	means, in respect of each Communications Hub Finance Facility, the costs the DCC incurs in procuring the provision (but not the maintenance) of the tranche of Communications Hubs to which that facility relates.
Communications Hub Finance Facility	means a facility arranged by the DCC or a DCC Service Provider with an Approved Finance Party relating exclusively to the funding of the costs associated with acquiring and/or making available a tranche of

Communications Hubs, including by way of a loan facility, an equity subscription, or an assignment or sale of receivables.

Communications Hub Forecast has the meaning given to that expression in Section F5.2 (Communications Hub Forecasts).

Communications Hub Function means either a SMETS1 CHF; or that part of a device installed (or to be installed) at a premises, which:
(a) consists of the components or other apparatus identified in; and
(b) as a minimum, has the functional capability specified by and complies with the other requirements of,
a Version of the CHTS (but excluding those provisions that are described as applying only to 'Gas Proxy Functions') which was within its Installation Validity Period on the date on which the device was installed.

Communications Hub Hot Shoe means equipment, other than a Smart Meter, to which a Communications Hub can be connected (provided the Communications Hub complies with the ICHIS).

Communications Hub Order has the meaning given to that expression in Section F5.7 (Communications Hub Orders).

Communications Hub Products means, in respect of a Valid Communications Hub Order, the Communications Hubs of the applicable Device Models that are the subject of that order and/or the Communications Hub Auxiliary Equipment that is the subject of that order.

Communications Hub Services means those Services described in Sections F5 (Communications Hub Forecasts & Orders), F6 (Delivery and Acceptance of Communications Hub), F7 (Installation and Maintenance of Communications Hubs), F8 (Removal and Return of Communications Hubs), and F9 (Categories of Communications Hub Responsibility).

Communications Hub Technical Specifications (or CHTS) means the document(s) set out in Schedule 10.

Communications Hub Transfer has the meaning given in Section F6A.1 (Communications Hub Transfers).

Communications Hub Transfer Request has the meaning given in Section F6A.2 (Communications Hub Transfer Requests).

Competent Authority means the Secretary of State, the Authority, and any local or regional or national agency, authority, department, inspectorate, minister, ministry, official or public or statutory person (whether autonomous or not) of the government

of the United Kingdom (but only insofar as each has jurisdiction over the relevant Party, this Code or its subject matter).

Completion of Implementation has the meaning given to that expression in Section X1 (General Provisions Regarding Transition).

Compromised means:

- (a) in relation to any System, that the intended purpose or effective operation of that System is compromised by the occurrence of any event which has an adverse effect on the confidentiality, integrity or availability of the System or of any Data that are stored on or communicated by means of it;
- (b) in relation to any Device, that the intended purpose or effective operation of that Device is compromised by the occurrence of any event which has an adverse effect on the confidentiality, integrity or availability of the Device or of any Data that are stored on or communicated by means of it;
- (c) in relation to any Data, that the confidentiality, integrity or availability of that Data is adversely affected by the occurrence of any event;
- (d) in relation to any Secret Key Material, that that Secret Key Material (or any part of it), or any Cryptographic Module within which it is stored, is accessed by, or has become accessible to, a person not authorised to access it;
- (e) in relation to any Certificate, that any of the following Private Keys is Compromised:
 - (i) the Private Key associated with the Public Key that is contained within that Certificate;
 - (ii) the Private Key used by the relevant Certification Authority to Digitally Sign the Certificate; or
 - (iii) where relevant, the Private Key used by the relevant Certification Authority to Digitally Sign the Certification Authority Certificate associated with the Private Key referred to in (ii);
- (f) in relation to any DCKI Certificate, that any of the following Private Keys is Compromised:
 - (i) the Private Key associated with the Public Key that is contained within that DCKI Certificate;
 - (ii) the Private Key used by the DCKICA to Digitally Sign the DCKI Certificate; or
 - (iii) where relevant, the Private Key used by the DCKICA to Digitally Sign the DCKICA Certificate associated with the Private Key referred to in (ii);
- (g) in relation to any certificate issued under an S1SPKI (the 'end certificate'), that any of the following Private Keys is Compromised:
 - (i) the Private Key associated with the Public Key that is contained within that end certificate;
 - (ii) any other Private Key that has been used to Digitally Sign any certificate that may be used to link the end certificate to the root certificate for that S1SPKI; and
- (h) in relation to any process or to the functionality of any hardware, firmware or software, that the intended purpose or effective operation of that process or functionality is compromised by the occurrence of any event which has an adverse effect on its confidentiality, integrity or availability,

(and “**Compromise**” and “**Compromising**” are to be interpreted accordingly).

Confidential Information means, in respect of a Party other than DCC, the Data belonging or relating to that Party or that otherwise becomes available to the DCC as a result (whether directly or indirectly) of that Party being a party to this Code.

Confirm Validity	means: (a) where the person carrying out the check has not previously done so in relation to a particular certificate, to successfully confirm the certificate path validation by using: (i) the path validation algorithm specified in IETF RFC 5280; or (ii) where the algorithm identified in IETF RFC 5280 is not appropriate for the certificate for which validity is being confirmed, such other certificate path validation as is appropriate in relation to that type of certificate; or (b) where the person carrying out the check has previously carried out the check in paragraph (a) in relation to a particular certificate, that the certificate has not subsequently been revoked, and its validity period has not expired.
Consequential Change	means either (as the context requires) a Modification to this Code or a variation to another Energy Code, which (in either case) the Cross Code Steering Group considers would be necessary to give full and timely effect to a variation under a different Energy Code (if that variation was approved).
Consignment	has the meaning given to that expression in Section F5.9 (Communications Hub Orders).
Consultation Summary	has the meaning given to that expression in Section D6.14 (Working Group Consultation).
Consumer Data	has the meaning given to that expression in Section M5.6 (Consumer Data).
Consumer Member	has the meaning given to that expression in Section C3.1 (Panel Composition).
Consumer Prices Index	means, in respect of any month, the consumer prices index (CPI) published for that month by the Office of National Statistics.
Consumption Data	means, in respect of a premises, the quantity of electricity or gas measured by the Energy Meter as having been supplied to the premises.
Contingency Key Pair	means Key Pair established by the DCC for the purposes of the replacement of Root OCA Certificates on Devices after a Relevant Private Key has been Compromised, and comprising: a. a "Contingency Private Key", being the Private Key, which is part of that Key Pair; and b. a "Contingency Public Key", being the Public Key which is part of that Key Pair and which is stored in the WrappedApexContingencyKey field of the Root OCA Certificate (being the field identified as such in the Root OCA Certificate Profile at Annex B of the Organisation Certificate Policy).

Contingency Private Key	has the meaning given to that expression in sub-paragraph (a) of the definition of Contingency Key Pair in this Section A1.1.
Contingency Public Key	has the meaning given to that expression in sub paragraph (b) of the definition of Contingency Key Pair in this Section A1.1.
Contingency Symmetric Key	means the symmetric key used to decrypt the Contingency Public Key as set out in the GB Companion Specification.
Core Communication Services	means the provision of the Services set out in the DCC User Interface Services Schedule, but excluding the Enrolment Services and Local Command Services.
Correlate	means, in respect of one or more Pre-Commands received by a User from the DCC in respect of a Service Request sent by that User, carrying out a process to check that the relevant contents of the Pre-Command is substantively identical to that of the Service Request using either (at the User's discretion): (a) the Parse and Correlate Software; or (b) equivalent software procured or developed by the User in accordance with Good Industry Practice, and " Correlated " shall be interpreted accordingly.
CoS Party	means the DCC when performing the tasks ascribed to the CoS Party in the Service Request Processing Document.
Countersigned	means, in respect of any electronic Data, that such Data have had a Digital Signature applied to them by the DCC in circumstances in which the DCC is required to 'Countersign' the Data, as described in the DCC User Interface Specification (and " Countersign " and " Countersigning " are to be interpreted accordingly).
Countersigned SMETS1 Alert	has the meaning given to that expression in the DCC User Interface Specification.
Countersigned SMETS1 Response	has the meaning given to that expression in the DCC User Interface Specification.
Countersigned S1SP Alert	has the meaning given to that expression in the DCC User Interface Specification.
Countersigned Service Request	means a communication sent by the DCC to a SMETS1 Service Provider in the circumstances set out in the Service Request Processing Document.

CPA Assurance Maintenance Plan	means the document agreed with the NCSC that describes the components of a device which, if changed, will require a new CPA Certificate to be issued.
CPA Certificates	has the meaning given to that expression in Section F2.4 (Background to Assurance Certificates).
CPA Certificate Remedial Plan	means a remedial plan for resolving the security issues that have resulted in or arisen from (or will result in or arise from) the cancellation, withdrawal, or expiry without renewal, of a Device Model's CPA Certificate, as further described in the CPL Requirements Document.
CPA Security Characteristics	means the documents published from time to time on the NCSC website that set out the features, testing and deployment requirements necessary to obtain a CPA Certificate in respect of one or more of the following: (a) 'Gas Smart Metering Equipment'; (b) 'Electricity Smart Metering Equipment'; (c) 'Communications Hubs'; (d) 'HAN Connected Auxiliary Load Control Switches'.
CPL Requirements Document	means the SEC Subsidiary Document of that name set out as Appendix Z.
Credit Assessment Agency	means the Credit Assessment Agency named in the table at Section J3.14 (Party's Unsecured Credit Factor Percentage).
Credit Assessment Score	means, in respect of a Party, a credit assessment score in respect of that Party procured from the Credit Assessment Agency.
Credit Cover Requirement	has the meaning given to that expression in Section J3.4 (Amount of Credit Support to be Provided).
Credit Cover Minimum Threshold	means, in respect of each Regulatory Year, £2,000, multiplied by the Consumer Prices Index for the October preceding the start of that Regulatory Year, divided by the Consumer Prices Index for October 2014. The relevant amount will be rounded to the nearest pound.
Credit Support	means one or more of a Bank Guarantee, Cash Deposit and/or Letter of Credit procured by a User pursuant to Section J3 (Credit Cover Requirement).
CREST	means the not-for-profit company registered in the United Kingdom with company number 06024007.

Critical Command	has the meaning given to that expression in the GB Companion Specification.
Critical Service Request	means a Service Request which is identified as critical in the DCC User Interface Specification (or, in the case of Elective Communication Services, the relevant Bilateral Agreement).
Critical Service Response	means a Service Response in respect of a Critical Service Request.
Cross Code Steering Group	means the group of that name established under the Change Management Schedule of the REC.
Cryptographic Credential Token	means a token compliant with FIPS 140-2 Level 3 (or any equivalent to that Federal Information Processing Standard which updates or replaces it from time to time) and containing Secret Key Material, as issued in accordance with the SMKI RAPP.
Cryptographic Hash Function	means an algorithm: (a) the inputs to which it would be computationally infeasible to determine from knowledge of its outputs; and (b) in relation to which it would be computationally infeasible to find an input which generates the same output as any other input.
Cryptographic Module	means a set of hardware, software and/or firmware that is Separated from all other Systems and that is designed for: (a) the secure storage of Secret Key Material; and (b) the implementation of Cryptographic Processing without revealing Secret Key Material.
Cryptographic Processing	means the generation, storage (other than of Secret Key Material used in relation to communications with a SMETS1 Device, where that Secret Key Material is encrypted) or use of any Secret Key Material.
CSP System	means those parts of the DCC Total System which comprise Systems used by a DCC Service Provider in order to provide Communications Services.
CSS Provider	means the entity providing the Centralised Registration Service.
CSS Provider Systems	means any Systems which are operated by or on behalf of the CSS Provider, and which are used in whole or in part for: (a) the collection, storage, Back-Up, processing or communication of Registration Data immediately prior to, or for the purposes of, its provision to

the DCC Live System referred to paragraph (a) and paragraph (c) of the definition of DCC Live Systems; or
 (b) generating Data for communication to the OCA, ICA or DCCKICA, or receiving Data from the OCA, ICA or DCCKICA (including any Systems which store or use Secret Key Material for such purposes),
 and any other Systems from which the Systems described in paragraphs (a) and (b) are not Separated.
 For the avoidance of doubt, CSS Provider Systems include only the Systems used by the CSS Provider to send Registration Data to the DCC and any other Systems from which those sending Systems are not Separate.

CSV file	has the meaning given to that expression in the Threshold Anomaly Detection Procedures.
Customer Supply Continuity Plan	means the plan of that name maintained by each Supplier Party under Condition 19E of its Gas Supply Licence and/or Condition 19C of its Electricity Supply Licence.
Data	means any information, data, knowledge, figures, methodologies, minutes, reports, forecasts, images or sounds (together with any database made up of any of these) embodied in any medium (whether tangible or electronic).
Data Controller	has the meaning given to 'controller' in the Data Protection Legislation.
Data Processor	has the meaning given to 'processor' in the Data Protection Legislation.
Data Protection Legislation	means General Data Protection Regulation and any national legislation implementing the same and related statutory instruments.
Data Retention Policy	means a document developed and maintained by a Party which sets out, in relation to Data held by that Party, the periods for which such Data will be held by it for the purpose of ensuring that it is able to satisfy its legal, contractual and commercial requirements in respect of the Data.
Data Subject	has the meaning given to that expression in the Data Protection Legislation.
Data Subject Rights	means the rights of Data Subjects under the Data Protection Legislation.
DCA Certificate	has the meaning given to that expression in Annex A of the Device Certificate Policy.

DCC	means, subject to Section M9 (Transfer of DCC Licence), the holder from time to time of the DCC Licence. In accordance with Section A2.1(l), references to the DCC shall (where applicable) include references to the DCC Service Providers with whom the DCC has contracted in order to secure performance of its obligations under this Code.
DCC Alert	has the meaning given to that expression in the DCC User Interface Specification.
DCC Assessment	means a DCC Preliminary Assessment or a DCC Impact Assessment.
DCC Boxed	means a testing tool provided by the DCC that replicates parts of the DCC Total System which can be used by Testing Participants outside of the DCC's physical test laboratories.
DCC Finance Facility	means a Communications Hub Finance Facility or a 4G DBT Finance Facility.
DCC Gateway Bandwidth Option	means a DCC Gateway HV Connection or a DCC Gateway LV Connection.
DCC Gateway Connection	means, for a premises, the physical infrastructure by which a connection is (or is to be) made between that premises and the DCC Systems (and each DCC Gateway Connection shall form part of the DCC Systems).
DCC Gateway Connection Code of Connection	means the SEC Subsidiary Document set out in Appendix G.
DCC Gateway Equipment	means, for each premises and any DCC Gateway Connection provided at that premises, that part of the DCC Gateway Connection that is (or is to be) located within that premises.
DCC Gateway HV Connection	means the high-volume technology solution by which the DCC provides DCC Gateway Connections, as further described in the DCC Gateway Connection Code of Connection.
DCC Gateway LV Connection	means the low-volume technology solution by which the DCC provides DCC Gateway Connections, as further described in the DCC Gateway Connection Code of Connection.
DCC Gateway Party	means a Party that is seeking or has been provided with a DCC Gateway Connection at its premises, or to whom the right to use that connection has

been transferred in accordance with Section H15.16 (Use of a DCC Gateway Connection)..

DCC ID	means each identification number established by the DCC pursuant to Section H4.43 (DCC IDs).
DCC Impact Assessment	means, in respect of analysis pursuant to Section D6.9 (Analysis by the DCC), a full and formal assessment by the DCC of the determined area for analysis.
DCC Independent Security Assessment Arrangements	has the meaning given to that expression in Section G9.1 (The DCC Independent Security Assessment Arrangements).
DCC Independent Security Assessment Service Provider	has the meaning given to that expression in Section G9.3 (Procurement of the DCC Independent Security Assessment Service Provider).
DCC Independent Security Assurance Service Provider	has the meaning given to that expression in Section G9.4 (The DCC Independent Security Assurance Service Provider).
DCC Individual Live System	means, with regard to the DCC's duty to Separate parts of the DCC Total System, a part of the DCC Total System which is used: (a) for one of the purposes specified in paragraphs (a) to (g), or (j) of the definition of DCC Live Systems, where the part used for each such purpose shall be treated as an individual System distinct from: (i) the part used for each other such purpose; and (ii) any part used for a purpose specified in either paragraph (h) or (i) of the definition of DCC Live Systems; or (b) by a SMETS1 Service Provider for the purpose specified in paragraph (h) of the definition of DCC Live Systems, where the part used by each SMETS1 Service Provider shall be treated as an individual System distinct from: (i) the part used by each other SMETS1 Service Provider; and (ii) any part used for a purpose specified in any of paragraphs (a) to (g), or paragraphs (i) and (j), of the definition of DCC Live Systems; or (c) by a DCO for the purpose specified in paragraph (i) of the definition of DCC Live Systems, where the part used by each DCO shall be treated as an individual System distinct from: (i) the part used by each other DCO; and (ii) any part used for a purpose specified in any of paragraphs (a) to (h) or (j) of the definition of DCC Live Systems.
DCC Interfaces	means each and every one of the following interfaces: (a) the DCC User Interface; (b) the Registration Data Interface; (c) the SMKI Repository Interface; (d) the SMKI Services Interface; (e) the Self-Service Interface; and (f) the communications interfaces used for the purposes of accessing those Testing Services designed to be accessed via DCC Gateway Connections.

DCC Internal Security Controls	means security controls applied by the DCC in relation to SMETS1 Service Requests in a manner consistent with the End-To-End Security Architecture.
DCC Internal Systems	means those aspects of the DCC Total System for which the specification or design is not set out in this Code.
DCC IT Supporting Systems	means, with regard to the DCC's duty to Separate parts of the DCC Total System, those parts of the DCC Total System which are used to support the DCC Live Systems and DCC IT Testing and Training Systems.
DCC IT Testing and Training Systems	means, with regard to the DCC's duty to Separate parts of the DCC Total System, those parts of the DCC Total System which are used to support the testing and training of DCC Personnel and third parties in relation to the provision of Services by the DCC.
DCC Key Infrastructure (or DCCKI)	means the public key infrastructure established by DCC to provide, amongst other things, transport layer security across DCC Gateway Connections.
DCC Licence	means the licences granted under section 6(1A) of the Electricity Act and section 7AB(2) of the Gas Act.
DCC Live Systems	means those parts of the DCC Total System which are used for the purposes of: (other than to the extent to which the activities fall within paragraph (b), (c), (f), (g), (h), (i) or (j) below) processing (including Countersigning of SMETS1 Responses, SMETS1 Alerts and S1SP Alerts, but not Countersigning of SMETS1 Service Requests) Service Requests, Pre-Commands, Commands, Instructions, Service Responses and Alerts, holding or using Registration Data for the purposes of processing Service Requests and Signed Pre-Commands, and providing the Repository Service; - Threshold Anomaly Detection (other than that carried out by a DCO, a SMETS1 Service Provider or the CoS Party) and (other than to the extent to which the activity falls within paragraph (d), (f), (g), (h), (i) or (j) below) Cryptographic Processing relating to the generation and use of a Message Authentication Code and Countersigning SMETS1 Service Requests; - discharging the obligations placed on the DCC in its capacity as CoS Party; - providing SMKI Services; - the Self-Service Interface; - creating, using, storing or destroying the Contingency Private Key, the Contingency Symmetric Key or the Recovery Private Key (except where each such key is being stored in an unusable form because it is or is being split into multiple parts as described in Appendix L (SMKI Recovery Procedure) or in the Organisation CPS; - the Production Proving Systems;

- h. discharging the obligations of any SMETS1 Service Provider in its capacity as such;
- i. discharging the obligations of any DCO in its capacity as such; and
- j. discharging the obligations of the CSS Provider in its capacity as such.

DCC Member has the meaning given to that expression in Section C3.1 (Panel Composition).

DCC Performance Indicators Document means a document to be established, reviewed and updated by the Panel, as further described in Section H 'DCC Services' clause 13.5B 'Report on Performance Indicators'.

DCC Personnel means those persons who are engaged by the DCC, in so far as such persons carry out, or are authorised to carry out, any activity in relation to the Authorised Business.

DCC Preliminary Assessment means, in respect of analysis pursuant to Section D6.9 (Analysis by the DCC):
 (a) a preliminary assessment by the DCC of the determined area for analysis;
 and
 (b) the costs and expenses that the DCC will incur in undertaking a DCC Impact Assessment in respect of the determined area for analysis.

DCC Release Management Policy has the meaning given to that expression in Section H8.9 (Release Management).

DCC Security Assessment Report has the meaning given to that expression in Section G9.7(a) (DCC Security Assessment Reports and Responses).

DCC Security Assessment Response has the meaning given to that expression in Section G9.7(b) (DCC Security Assessment Reports and Responses).

DCC Service Provider means an External Service Provider, as defined in the DCC Licence (but always excluding the DCC itself).

DCC Service Provider Contract means, as between the DCC and each DCC Service Provider, any arrangement (however described) pursuant to which the DCC procures services for the purpose of providing the Services.

DCC Systems means the DCC Total System, including the SMETS1 SM WAN and the SMETS2+ SM WAN, but excluding all Communications Hubs.

DCC Total System	means the Systems used by the DCC and/or the DCC Service Providers in relation to the Services and/or this Code, including the DCC User Interface, the SMETS1 SM WAN, the SMETS2+ SM WAN and Communications Hubs except for those Communications Hubs which are: (a) SMETS1 CHs; (b) neither installed nor in the possession of the DCC; and/or (c) installed, but are not Commissioned.
DCC User Interface	means the communications interface designed to allow the communications referred to in Section H3.3 (Communications to be sent via the DCC User Interface) to be sent between the DCC and Users.
DCC User Interface Code of Connection	means the SEC Subsidiary Document of that name set out in Appendix AE.
DCC User Interface Services	means the Services described in the DCC User Interface Services Schedule.
DCC User Interface Services Schedule	means the SEC Subsidiary Document of that name set out in Appendix E.
DCC User Interface Specification	means the SEC Subsidiary Document set out in Appendix AD.
DCC Website	means the DCC's publicly available website (or, where the Panel and the DCC so agree, the Website).
DCCKI Authorised Subscriber	means a Party or RDP which is a DCCKI Authorised Subscriber for the purposes of (and in accordance with the meaning given to that expression in) the DCCKI Certificate Policy.
DCCKI Authority Revocation List (or DCCKI ARL)	has the meaning given to that expression in the DCCKI Certificate Policy.
DCCKI Certificate	has the meaning given to that expression in the DCCKI Certificate Policy.
DCCKI Certificate Policy	means the SEC Subsidiary Document of that name set out in Appendix S.
DCCKI Certificate Revocation List (or DCCKI CRL)	has the meaning given to that expression in the DCCKI Certificate Policy.

DCCKI Certificate Signing Request	means a request for a DCCKI Certificate submitted by a DCCKI Eligible Subscriber in accordance with the DCCKI Certificate Policy and the DCCKI RAPP.
DCCKI Certification Authority (or DCCKICA)	has the meaning given to that expression in the DCCKI Certificate Policy.
DCCKI Certification Practice Statement (or DCCKI CPS)	has the meaning given to that expression in Section L13.37 (the DCCKI Certification Practice Statement).
DCCKI Code of Connection	means the SEC Subsidiary Document of that name set out in Appendix V, which: (a) has the purpose described in Section L13.14 (DCCKI Code of Connection); and (b) is originally to be developed pursuant to Sections L13.15 to L13.16 (DCCKI Interface Document Development).
DCCKI Document Set	has the meaning given to that expression in Section L13.33 (the DCCKI Document Set).
DCCKI Eligible Subscriber	has the meaning given to that expression in Section L13.8 (DCCKI Eligible Subscribers).
DCCKI Infrastructure Certificate	has the meaning given to that expression in the DCCKI Certificate Policy.
DCCKI Interface Design Specification	means the SEC Subsidiary Document of that name set out in Appendix T, which: (a) has the purpose described in Section L13.13 (DCCKI Interface Design Specification); and (b) is originally to be developed pursuant to Sections L13.15 to L13.16 (DCCKI Interface Document Development).
DCCKI Participants	means the DCC (acting in its capacity as the provider of the DCCKI Services), all DCCKI Subscribers and all DCCKI Relying Parties.
DCCKI PMA Functions	has the meaning given to that expression in Section L13.54 (the DCCKI PMA Functions).
DCCKI Registration Authority	means the DCC, acting in its capacity as such for the purposes of (and in accordance with the meaning given to that expression in) the DCCKI Certificate Policy.

DCCKI Registration Authority Policies and Procedures (or DCCKI RAPP)	means the SEC Subsidiary Document of that name set out in Appendix W, which is originally to be developed pursuant to Sections L13.35 to L13.36 (the DCCKI Registration Authority Policies and Procedures: Document Development).
DCCKI Relying Party	means a person who, pursuant to the Code, receives and relies upon a DCCKI Certificate.
DCCKI Repository	has the meaning given to that expression in Section L13.17 (the DCCKI Repository).
DCCKI Repository Code of Connection	means the SEC Subsidiary Document of that name set out in Appendix V, which: a. (a) has the purpose described in Section L13.28 (DCCKI Repository Code of Connection); and b. (b) is originally to be developed pursuant to Sections L13.29 to L13.30 (DCCKI Repository Interface Document Development).
DCCKI Repository Interface	has the meaning given to that expression in Section L13.26 (the DCCKI Repository Interface).
DCCKI Repository Interface Design Specification	means the SEC Subsidiary Document of that name set out in Appendix U, which: (a) has the purpose described in Section L13.27 (DCCKI Repository Interface Design Specification); and (b) is originally to be developed pursuant to Sections L13.29 to L13.30 (DCCKI Repository Interface Document Development).
DCCKI Repository Service	has the meaning given to that expression in Section L13.18 (the DCCKI Repository Service).
DCCKI SEC Documents	has the meaning given to that expression in Section L13.34 (the DCCKI SEC Documents).
DCCKI Service Interface	has the meaning given to that expression in Section L13.12 (the DCCKI Service Interface).
DCCKI Services	has the meaning given to that expression in Section L13.1 (the DCCKI Services).
DCCKI Subscriber	means, in relation to any DCCKI Certificate, a Party or RDP which has been Issued with and accepted that Certificate, acting in its capacity as the holder of the Certificate.
DCCKICA Certificate	has the meaning given to that expression in the DCCKI Certificate Policy.

DCO	means the DCC when carrying out the role and activities ascribed to a DCO in this Code; and where the DCC carries out that role and those activities by processing communications which relate to different SMETS1 Service Providers, it shall be treated as being a separate DCO in respect of the communications relating to each such SMETS1 Service Provider.
Decommissioned	means, in respect of a Device that has previously been Commissioned, that the Device has been decommissioned in accordance with Section H6.1 (Decommissioning).
Default Interest Rate	means, for any day, 8% above the base lending rate of the Bank of England at 13.00 hours on that day.
Defaulting Party	has the meaning given to that expression in Section M8.1 (Events of Default).
Delivery Batch	means all the Communications Hubs that were delivered pursuant to Section F6 (Delivery and 37 Acceptance of Communications Hubs) to a single location during a month (regardless of whether they were delivered pursuant to more than one Communications Hub Order by more than one Party).
Delivery Date	has the meaning given to that expression in Section F5.8 (Communications Hub Orders).
Delivery Location	has the meaning given to that expression in Section F5.8 (Communications Hub Orders).
Delivery Month	has the meaning given to that expression in Section F5.8 (Communications Hub Orders).
Delivery Quantity	has the meaning given to that expression in Section F5.8 (Communications Hub Orders).
Delivery Window	means, for each delivery of Communications Hub Products to a Delivery Location, the time period on the applicable Delivery Date within which the DCC is to deliver the Communications Hub Products, as established in accordance with the CH Handover Support Materials.
Denial of Service Event	means any unauthorised attempt to make any part of a System wholly or partially unavailable for use for a period of time.

Deployed Products List	means the list published by the Panel pursuant to Section F2.10 (Deployed Products List).
Derogation	has the meaning given to that expression at Section A4.2.
Designated Premises	means Non-Domestic Premises defined as Designated Premises within the meaning given to that expression in the Electricity Supply Licences or the Gas Supply Licences.
Detailed Evaluation	has the meaning given to that expression in Section H7.7 (Detailed Evaluation of Elective Communication Services).
Device	means one of the following individual devices: (a) an Electricity Smart Meter; (b) a Gas Smart Meter; (c) a Communications Hub Function; (d) a Gas Proxy Function; (e) a Pre-Payment Meter Interface Device; (f) a HAN Connected Auxiliary Load Control Switch; (g) a Standalone Auxiliary Proportional Controller; and (h) any Type 2 Device.
Device Alert	has the meaning given to that expression in the DCC User Interface Specification.
Device and User System Tests	has the meaning given to that expression in Section H14.31 (Device and User System Tests).
Device Certificate	has the meaning given to that expression in Annex A of the Device Certificate Policy.
Device Certificate Policy	means the SEC Subsidiary Document of that name set out in Appendix A.
Device Certification Authority (or DCA)	has the meaning given to that expression in Annex A of the Device Certificate Policy.
Device Certification Practice Statement (or Device CPS)	has the meaning given to that expression in Section L9.8 (the Device Certification Practice Statement).
Device ID	means: (a) in relation to a SMETS2+ Device, the unique number by which an individual Device can be identified, as allocated to that Device in accordance with the applicable version of the GB Companion Specification; or (b) in relation to a SMETS1 Device, the unique number complying with the SMETS1 Supporting Requirements and by which the Device can be identified.

Device Log	means, in respect of a SMETS2+ Device (excluding Type 2 Devices), the electronic record within that Device which records the other Devices from which that Device can receive Data via the HAN. In respect of a SMETS1 Device, it shall have the meaning in the SMETS1 Supporting Requirements.
Device Model	a. subject to sub-paragraph (b), in respect of a Communications Hub or a Device (other than a Communications Hub Function or a Gas Proxy Function), the Manufacturer, the model, the hardware version and the firmware version of the Communications Hub or Device or, b. in relation to a PPMID that is capable of forming part of either a SMETS1 Smart Metering System, or a SMETS2+ Smart Metering System, insofar as it relates to the PPMID forming part of a SMETS1 Smart Metering System; the Manufacturer of the PPMID, its model, its hardware version and its firmware version that is different to the firmware version of the PPMID that forms part of a SMETS2+ Smart Metering System.
Device Security Credentials	means: (a) in respect of any SMETS2+ Device (other than a Type 2 Device), the Device's active Device Certificates and the electronic record within that Device of information from any other Certificates required to be held on the Device in order to execute the functionality of that Device specified in the GB Companion Specification; (b) in respect of a SMETS1 Device, the Device Security Credentials required by the SMETS1 Supporting Requirements.
Device Type	means, in respect of a Device, a generic description of the category of Devices into which the Device falls.
Digital Signature	means, in respect of any electronic Data, a digital signature generated using: (a) the entirety of those Data (excluding the digital signature itself and, to the extent specified in the code, any other parts of those Data); (b) a Private Key; and (c) the signature algorithm defined in the certificate profile in the certificate policy under which the certificate associated with that Private Key was issued or (where such certificate policy does not exist) the signature algorithm relevant to that certificate.
Digitally Signed	means, in respect of any electronic Data, that such Data have had the necessary Digital Signatures applied to them (and "Digitally Sign" and "Digitally Signing" are to be interpreted accordingly).
Direct Agreement	means, in respect of each Communications Hub Finance Facility or 4G DBT Finance Facility, any agreement entered into by the DCC in relation to that facility under which the DCC owes direct payment obligations.

Disaster	means an event that causes one or more of the 'DCC Disaster Impacts' listed in the BCDR Procedure.
Dispute	means any dispute or difference (of whatever nature) arising under, out of or in connection with this Code and/or any Bilateral Agreement.
DLMS Certificates	has the meaning given to that expression in Section F2.4 (Background to Assurance Certificates).
DLMS User Association	means the association of that name located in Switzerland (see - www.dlms.com).
Domestic Premises	means premises at which a Supply of Energy is or will be taken wholly or mainly for domestic purposes, which is to be interpreted in accordance with Condition 6 of the relevant Energy Supply Licence.
Draft Budget	has the meaning given to that expression in Section C8.11 (Preparation of Draft Budgets).
Draft Proposal	has the meaning given to that expression in Section D1.2 (Modifications).
Dual Band Communications Hub	has the meaning given to that expression in the CHTS.
Dual Band Communications Hub Configuration Tables	means the technical document set out as an annex to Section F4 (Operational Functionality, Interoperability and Access for the DCC).
Due Date	has the meaning given to that expression in Section J1.5 (Payment of Charges).
DUIS	means the DCC User Interface Specification.
DUIS XML Schema	means, in relation to any Version of the DCC User Interface Specification, the version of the DUIS XML Schema contained within it, as specified in the defined term 'DUIS XML Schema' in that Version of the DCC User Interface Specification.
EII DCCKICA Certificate	has the meaning given to that expression in the DCCKI Certificate Policy.

EII DCCKICA Certificate Revocation List (or EII DCCKICA CRL)	has the meaning given to that expression in the DCCKI Certificate Policy.
ECoS Interface	means any one or more communications interface designed to allow communications to be sent between: a. that part of the DCC Total System which is used for the purposes referred to in paragraph (c) of the definition of DCC Live Systems; and b. any other System.
ECoS Interface Specification	means any one or more document which specifies the detailed format of communications which are to take place across an ECoS Interface.
ECoS Service Live Date	means the date on which the DCC achieves the milestone which is: a. set out in the plan approved by the Secretary of State under and in accordance with Condition 13A of the DCC Licence; and b. referred to (or identified as) 'ECoS Service Live' in that approved plan.
Elected Members	has the meaning given to that expression in Section C3.1 (Panel Composition).
Elective Communication Services	means the provision of communication services that are (or are to be) defined in a Bilateral Agreement (rather than the DCC User Interface Services Schedule) in a manner that involves communication via the SM WAN (provided that such services must relate solely to the Supply of Energy or its use).
Electricity Act	means the Electricity Act 1989.
Electricity Additional Registration Data	has the meaning given to that expression in Section E5.2 (Electricity Data).
Electricity Distribution Licence	means a licence granted, or treated as granted, under section 6(1)(c) of the Electricity Act.
Electricity Distributor	means, for a Smart Metering System or a Device, the holder of the Electricity Distribution Licence for the network to which the relevant premises are connected.
Electricity Meter	means any meter that conforms to the requirements of paragraph 2 of schedule 7 to the Electricity Act and is used for the purpose of measuring the quantity of electricity that is supplied to premises.

Electricity Network Party	means a Party that holds an Electricity Distribution Licence.
Electricity Smart Meter	means either a SMETS1 ESME; or a device (other than a SMETS1 ESME) installed (or to be installed) at a premises, which: (a) consists of the components or other apparatus identified in; and (b) as a minimum, has the functional capability specified by and complies with the other requirements of, the ESMETS (and, where applicable, the part(s) of the ESMETS relevant to the Physical Device Type in question) in a Version of the ESMETS which was within its Installation Validity Period on the date on which the device was installed.
Electricity Smart Metering Equipment Technical Specification (or ESMETS)	means the part(s) of the document(s) set out in Schedule 9 identified as applying either to 'Electricity Smart Metering Equipment' or to 'Electricity Smart Metering System'.
Electricity Supplier Party	means a Party that holds an Electricity Supply Licence (regardless of whether that Party also holds a Gas Supply Licence).
Electricity Supply Licence	means a licence granted, or treated as granted, pursuant to section 6(1)(d) of the Electricity Act.
Eligible Subscriber	has the meaning given to that expression in Section L3.15 (Eligible Subscribers).
Eligible User	means, in respect of a Service set out in the DCC User Interface Services Schedule or an Elective Communication Service and (in either case) a Smart Metering System (or a Device forming, or to form, part of a Smart Metering System), one of the Users eligible to receive that Service in respect of that Smart Metering System (or such a Device), as further described in Section H3.8 (Eligibility for Services).
Eligible User Role	means, in respect of a Service set out in the DCC User Interface Services Schedule or an Elective Communication Service, one of the User Roles that is capable of being an Eligible User in respect of that Service (determined without reference to a particular Smart Metering System or Device).
Enabling Services	means one or more of the Enrolment Service, the Communications Hub Service, and the Other Enabling Services.
Encrypt	means, in respect of Section H4 (Processing Service Requests), the process of encoding Data using the methods set out for that purpose in the GB Companion Specification; and “ Encrypted ” shall be interpreted accordingly.

End-to-End Security Architecture	means a document that describes how the security controls in respect of smart metering relate to the architecture of the End-to-End Smart Metering System.
End-to-End Smart Metering System	means the DCC Total System, all Enrolled Smart Metering Systems, all User Systems and all RDP Systems.
End-to-End Technical Architecture	means the DCC Systems and the Smart Metering Systems together, including as documented in the Technical Code Specifications.
Enduring Change of Supplier Transition and Migration Approach Document (ETMAD)	means the SEC Subsidiary Document set out in Appendix AS.
Enduring Testing Approach Document	means the SEC Subsidiary Document set out in Appendix J.
Energy Code	means a multilateral code or agreement maintained pursuant to one or more of the Energy Licences.
Energy Consumer	means a person who receives, or wishes to receive, a Supply of Energy at any premises in Great Britain.
Energy Licence	means a licence that is granted, or treated as granted, under section 6 of the Electricity Act or under section 7, 7A or 7AB of the Gas Act.
Energy Market Data Item	means the most granular level of data defining a specific attribute in respect of a data type, the permissible values for which are defined and controlled in the Energy Market Data Specification.
Energy Market Data Specification	a common set of standards for all industry data represented within the Energy Market Architecture Repository as defined in the REC.
Energy Market Message	has the meaning given to that expression in the REC.
Energy Market Meta Data Owner	means the organisation responsible for the control of the meta data associated with the Energy Market Data Item or Energy Market Message as defined in the REC.
Energy Meter	means an Electricity Meter or a Gas Meter.

Energy Supply Licence	means an Electricity Supply Licence or a Gas Supply Licence.
Enrolment	means, in respect of a Smart Metering System, the act of enrolling that Smart Metering System in accordance with the Enrolment Service (and the words “ Enrol ” and “ Enrolled ” will be interpreted accordingly).
Enrolment Service	means the Service described in Section H5 (Enrolment Services and the Smart Metering Inventory).
Equivalent Steps	means in relation to a SMETS1 Device and/or a SMETS1 Service Request, those steps that are required to be taken such that: (a) the relevant Device is, or Data relating to it, are configured or reconfigured; or (b) Data that are stored on, or in relation to or generated by, that Device are retrieved, so as to have an effect that is equivalent to that which would occur were a Service Request of the same Service Reference Variant as the SMETS1 Service Request to be Successfully Executed on a SMETS2+ Device equivalent to the SMETS1 Device (taking into account the different design functionality of the SMETS1 Device and, where relevant, any specific requirements for alternative processing set out in the SMETS1 Supporting Requirements), and such that the appropriate SMETS1 Response(s) and SMETS1 Alert(s) can be generated, and provided that, in relation to a SMETS1 Device that has a Non-EPCL Device Model, the steps required to be taken shall be those steps of the nature set out above that would be required to have been taken in relation to that Device prior to its firmware version changing to that of a Non-EPCL Device Model.
EU Regulations	means any retained EU Law.
EUI-64 Compliant	means a 64-bit globally unique identifier governed by the Institute of Electrical and Electronics Engineers.
Event of Default	has the meaning given to that expression in Section M8.1 (Events of Default).
Export MPAN	means an MPAN for a Metering Point relating to the export of electricity from a premises.
Export Supplier	means, for a Smart Metering System or a Device and any period of or point in time, the Supplier Party Registered during that period of or at that point in time in respect of the Export MPAN relating to that Smart Metering System or Device (but excluding Smart Metering Systems or Devices for which there is no related Import MPAN, in which circumstance such Registered Supplier Party is deemed to be the Import Supplier in accordance with the definition thereof).

Failing Electricity Supplier Party	means an Electricity Supply Party whose Electricity Supply Licence is to be revoked by the Authority, as notified by the Authority to the SMKI PMA.
Failing Energy Supplier	means a Supplier Party which is a Failing Gas Supplier Party and/or a Failing Electricity Supplier Party.
Failing Gas Supplier Party	means a Gas Supplier Party whose Gas Supply Licence is to be revoked by the Authority, as notified by the Authority to the SMKI PMA.
Fast-Track Modifications	has the meaning given to that expression in Section D2.8 (Fast-Track Modifications).
File Signing Certificate	has the meaning given to that expression in the IKI Certificate Policy.
File Signing Software	means software provided by the DCC for the purposes of enabling a Party to apply a Digital Signature to a CSV File.
Firmware Hash	means the result of the application of a hash function, such function being a repeatable process to create a fixed size and condensed representation of a message using the SHA-256 algorithm as specified in the US Government's Federal Information Processing Standards document 180-4.
Firmware Information Repository	means a table established and maintained by the Panel that details firmware updates, releases, Manufacturer contact details and other firmware information.
Follow-up Security Assessment	has the meaning given to that expression in Section G8.19 (Categories of Security Assurance Assessment) for a User Security Assessment and in Section G9.17 for a DCC Security Assessment.
Force Majeure	means, in respect of any Party (the Affected Party), any event or circumstance which is beyond the reasonable control of the Affected Party, but only to the extent such event or circumstance (or its consequences) could not have been prevented or avoided had the Affected Party acted in accordance with Good Industry Practice. Neither lack of funds nor strikes or other industrial disturbances affecting only the employees of the Affected Party and/or its contractors shall be interpreted as an event or circumstance beyond the Affected Party's control.
Forum Sub-Group	has the meaning given to that expression in Section Z6.1 (Definitions).

Framework Agreement	means an agreement in the form set out in Schedule 1.
Full Privacy Assessment	has the meaning given to that expression in Section I2.12 (Categories of Assessment).
Full User Security Assessment	has the meaning given to that expression in Section G8.16 (Categories of Security Assurance Assessment).
Future-Dated Services	has the meaning given to that expression in Section H3.11 (Categories of Services).
Gas Act	means the Gas Act 1986.
Gas Additional Registration Data	has the meaning given to that expression in Section E5.4 (Gas Data).
Gas Meter	means a meter that conforms to the requirements of section 17(1) of the Gas Act for the purpose of registering the quantity of gas supplied through pipes to premises.
Gas Network Party	means a Party that holds a Gas Transporter Licence.
Gas Proxy Function	means either a SMETS1 GPF; or a Device installed (or to be installed) at a premises, which: (a) consists of the components or other apparatus identified in; and (b) as a minimum, has the functional capability specified by and complies with the other requirements of, a Version of the CHTS (but only those provisions that are described as applying to 'Gas Proxy Functions') which was within its Installation Validity Period on the date on which the device was installed.
Gas Smart Meter	means either a SMETS1 GSME; or a device (other than a SMETS1 GSME) installed (or to be installed) at a premises, which: (a) consists of the components or other apparatus identified in; and (b) as a minimum, has the functional capability specified by and complies with the other requirements of, a Version of the GSMETS which was within its Installation Validity Period on the date on which the device was installed.

Gas Smart Metering Equipment Technical Specification (or GSMETS)	means the part(s) of the document(s) set out in Schedule 9 identified as applying either to 'Gas Smart Metering Equipment' or to 'Gas Smart Metering System'.
Gas Supplier	means, for a Smart Metering System or a Device and any period of or point in time, the Supplier Party Registered during that period of or at that point in time in respect of the MPRN relating to that Smart Metering System or Device.
Gas Supplier Party	means a Party that holds a Gas Supply Licence (regardless of whether that Party also holds an Electricity Supply Licence).
Gas Supply Licence	means a licence granted, or treated as granted, pursuant to section 7A(1) of the Gas Act.
Gas Transporter	means, for a Smart Metering System or a Device, the holder of the Gas Transporter Licence for the network to which the relevant premises are connected.
Gas Transporter Licence	means a licence granted, or treated as granted, under section 7 of the Gas Act (but not the licence in respect of the National Transmission System, as defined in the UNC).
GB Companion Specification (or GBCS)	means the document of that name set out in Schedule 8.
GBCS Payload	means the content of a Pre-Command, Signed Pre-Command, Service Response or Device Alert which is set out in the format required by the GB Companion Specification.
General Data Protection Regulation	means EU Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data.
General Installation End Date	has the meaning given to that expression in Section A3.13.
General SEC Objectives	has the meaning given to that expression in Section C1 (SEC Objectives).
GFI Testing	means a testing service provided by the DCC to enable eligible persons to test the interoperability of Devices (other than those comprising Communications Hubs) with the DCC Systems and with the Communications Hubs to be provided as part of the Testing Services, such that those Devices are able to

respond to Commands received from or via the DCC in accordance with the requirements defined in the GB Companion Specification.

GFI Testing Tools	means a product provided by the DCC to enable Testing Participants to test their products against an interpretation of DCC Total Systems, including an interpretation of the GBCS standard, such that those Devices are able to respond to Commands received in accordance with the requirements defined in the GB Companion Specification.
Good Industry Practice	means, in respect of a Party, the exercise of that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced person engaged in a similar type of undertaking as that Party under the same or similar circumstances.
Greenhouse Gas Emissions	means emissions of Greenhouse Gases, as defined in section 92 of the Climate Change Act 2008.
HAN	means, for each Smart Metering System, the home area network created by the Communications Hub Function forming part of that Smart Metering System.
HAN Connected Auxiliary Load Control Switch	means a device installed (or to be installed) at a premises, which: (a) consists of the components or other apparatus identified in; and (b) as a minimum, has the functional capability specified by and complies with the other requirements of, a Version of the HCALCS Technical Specification which was within its Installation Validity Period on the date on which the device was installed.
HAN Requirements	means the requirements with respect to the HAN provided for in the Energy Licences and this Code.
HAN Variants	means the variations of SMETS2+ Communications Hub that are necessary to enable communication via each HAN Interface (as defined in the CHTS).
Hash	means the result of the application of a hash function, such function being a repeatable process to create a fixed size and condensed representation of a message using the SHA-256 algorithm as specified in the US Government's Federal Information Processing Standards document 180-4.
HCALCS	means a HAN Connected Auxiliary Load Control Switch.
HCALCS Technical Specification (or HCALCSTS)	means the part(s) of the document(s) set out in Schedule 9 identified as applying to 'HAN Connected Auxiliary Load Control Switches'.

ICA Certificate	has the meaning given to that expression in the IKI Certificate Policy.
ICHIS	means the Intimate Communications Hub Interface Specifications.
ID Allocation Procedure	means the document of that name developed and maintained in accordance with Section B2.2 (ID Allocation Procedure).
IETF RFC 5280	has the meaning given to that expression in the GB Companion Specification.
IHD	means a device provided (or to be provided) at a premises, which is either a SMETS1 IHD; or: (a) consists of the components or other apparatus identified in; and (b) as a minimum, has the functional capability specified by and complies with the other requirements of, a Version of the IHD Technical Specification which was within its Installation Validity Period on the date on which the device was provided, and which a User acting in the role of Import Supplier or Gas Supplier has joined, or is seeking to join, to an Electricity Smart Meter or Gas Proxy Function (as applicable).
IHD Technical Specification (or IHDS)	means the part(s) of the document(s) set out in Schedule 9 identified as applying to 'IHDs'.
IKI Authority Revocation List (or IKI ARL)	has the meaning given to that expression in the IKI Certificate Policy.
IKI Certificate	has the meaning given to that expression in the IKI Certificate Policy.
IKI Certificate Policy	means the SEC Subsidiary Document of that name set out in Appendix Q.
IKI Certificate Revocation List (or IKI CRL)	has the meaning given to that expression in the IKI Certificate Policy.
IKI Certification Practice Statement (or IKI CPS)	has the meaning given to that expression in Section L9.20 (the IKI Certification Practice Statement).
IKI File Signing Certificate	means an IKI Certificate issued by the IKI File Signing Certification Authority.
IKI File Signing Certification Authority	has the meaning given to that expression in the IKI Certificate Policy.

Import MPAN	means an MPAN for a Metering Point relating to the import of electricity to a premises.
Import Supplier	means, for a Smart Metering System or a Device and any period of or point in time: (a) the Supplier Party Registered during that period of or at that point in time in respect of the Import MPAN relating to that Smart Metering System or Device; or (b) where there is no related Import MPAN for that Smart Metering System or Device, the Supplier Party Registered during that period of or at that point in time in respect of the Export MPAN relating to that Smart Metering System or Device.
Incident	means an actual or potential interruption to (or reduction in the quality or security of) the Services, as further described in the Incident Management Policy.
Incident Category	has the meaning given to that expression in Section H9.1 (Incident Management Policy).
Incident Management	means a framework of processes designed to identify, raise, allocate responsibility for, track and close Incidents.
Incident Management Log	has the meaning given to that expression in Section H9.3 (Incident Management Log).
Incident Management Policy	means the SEC Subsidiary Document of that name set out in Appendix AG.
Incident Parties	has the meaning given to that expression in Section H9.1 (Incident Management Policy).
Independent Assurance Scheme	has the meaning given to that expression in Part 2.1 of the SMKI Compliance Policy (DCC: Duty to Submit to an Independent Assurance Scheme).
Independent Privacy Auditor	has the meaning given to that expression in Section I2.1 (Procurement of the Independent Privacy Auditor).
Independent SMKI Assurance Service Provider	has the meaning given to that expression in Part 3.1 of the SMKI Compliance Policy (DCC: Duty to Procure Independent Assurance Services).

Independent S1SPKM Assurance Service Provider	has the meaning given to that expression in the S1SPKM Compliance Policy (DCC: Duty to Procure Independent Assurance Services).
Independent Time Source	has the meaning given to that expression in Section G2.46(b) (Network Time).
Information Classification Scheme	means a methodology for: (a) the appropriate classification of all Data that are processed or stored on a System by reference to the potential impact of those Data being Compromised; and (b) determining the controls to be applied to the processing, storage, transfer and deletion of each such class of those Data.
Information Commissioner	means the Commissioner as defined in the Data Protection Legislation.
Infrastructure Key Infrastructure (or IKI)	means the public key infrastructure established by the DCC for the purpose, among other things, of authenticating communications between: (a) Parties and the OCA and DCA; and (b) Parties and the DCC, where those Parties are required in accordance with this Code to provide files to the DCC that have been Digitally Signed using the Private Key associated with the Public Key that is contained within a File Signing Certificate.
Insolvency Type Event	means, in respect of a Party, that that Party: (a) is unable to pay its debts as they fall due, or is deemed to be unable to pay its debts within the meaning of section 123 of the Insolvency Act 1986 (but as if the reference in such section to “£750” was replaced with “£10,000”); (b) calls a meeting for the purpose of passing a resolution for its winding-up, or such a resolution is passed; (c) presents, or has presented in respect of it, a petition for a winding-up order; (d) has an application to appoint an administrator made in respect of it, or a notice of intention to appoint an administrator is filed in respect of it; (e) has an administrator, administrative receiver, or receiver appointed over all or a substantial part of its business, undertaking, property or assets; (f) takes any steps in connection with proposing a company voluntary arrangement or a company voluntary arrangement is passed in relation to it; or (g) suffers or undergoes any procedure analogous to any of those specified above, including in respect of a Party who is a natural person or in any jurisdiction outside the UK in which a Party is incorporated.
Installation End Date	has the meaning given to that expression in Section A3.12(b) (The Installation Validity Period).
Installation Start Date	has the meaning given to that expression in Section A3.12(a) (The Installation Validity Period).

Installation Validity Period	has the meaning given to that expression in Section A3.11 (The Installation Validity Period).
Instruction	means, in respect of a SMETS1 Device, a communication generated by the SMETS1 Service Provider or a DCO following receipt of a SMETS1 Service Request by the DCC that is designed to instruct the Device to execute the functionality necessary to permit the DCC to take the necessary Equivalent Steps.
Intellectual Property Rights	means patents, trade marks, trade names, service marks, rights in designs, copyright (including rights in computer software), logos, rights in internet domain names, and moral rights, database rights, rights in know-how, and other intellectual property rights (in each case, whether registered or unregistered or subject to an application for registration), and includes any and all rights or forms of protection having equivalent or similar effect anywhere in the world.
Interim Election	has the meaning given to that expression in Section C4.2 (Election of Elected Members).
Interoperability and Innovation Events	means the Testing Service described in Section H14.49 (Interoperability and Innovation Events).
Interoperability Checker Service	has the meaning given to that expression in Section H16.6 (Obligations of the DCC).
Interoperability Data	has the meaning given to that expression in Section H16.2 (The Responsibility of Supplier Parties).
Intimate Communications Hub Interface Specifications	means the specifications described as such and originally developed by the DCC pursuant to schedule 3 of the DCC Licence, as amended from time to time in accordance with Section H12.9 (Amendments to the ICHIS).
Inventory Enrolment and Decommissioning Procedures	means the SEC Subsidiary Document of that name set out as Appendix AC.
Invoice	has the meaning given to that expression in Section J1.2 (Invoicing of Charges).
Issue	in relation to: (a) a Device Certificate or DCA Certificate, has the meaning given to that expression in Annex A of the Device Certificate Policy; (b) an Organisation Certificate or OCA Certificate, has the meaning given to that

expression in Annex A of the Organisation Certificate Policy;
(c) an IKI Certificate or ICA Certificate has the meaning given to that expression in the IKI Certificate Policy;
(d) a DCCKI Certificate (including any DCCKICA Certificate) has the meaning given to that expression in the DCCKI Certificate Policy.

Issuing DCA	has the meaning given to that expression in Annex A of the Device Certificate Policy.
Issuing DCA Certificate	has the meaning given to that expression in Annex A of the Device Certificate Policy.
Issuing ICA	has the meaning given to that expression in the IKI Certificate Policy.
Issuing ICA Certificate	has the meaning given to that expression in the IKI Certificate Policy.
Issuing OCA	has the meaning given to that expression in Annex A of the Organisation Certificate Policy.
Issuing OCA Certificate	has the meaning given to that expression in Annex A of the Organisation Certificate Policy.
Key Pair	means a Private Key and its mathematically related Public Key, where the Public Key may be used to Check Cryptographic Protection in relation to a communication that has been Digitally Signed using the Private Key.
Known Remote Party	has the meaning given to that expression in the GB Companion Specification.
Large Supplier Party	means a Supplier Party that is not a Small Supplier Party.
Laws and Directives	means any law (including the common law), statute, statutory instrument, regulation, instruction, direction, rule, condition or requirement (in each case) of any Competent Authority (or of any authorisation, licence, consent, permit or approval of any Competent Authority).
Lead Code	means the Energy Code which the Cross Code Steering Group has designated as being the Lead Code for the purpose of progressing a variation that is likely to have an impact on any other Energy Codes.

Lead Code Modification	means the variation to the Lead Code that gives rise to an associated Consequential Change.
Lead Supplier	means, in respect of a Communications Hub: (a) where there is only one Responsible Supplier for the Communications Hub Function which forms part of that Communications Hub, that Responsible Supplier; or (b) where there is more than one Responsible Supplier for the Communications Hub Function which forms part of that Communications Hub, the Import Supplier for the Communications Hub Function.
Letter of Credit	means an unconditional irrevocable standby letter of credit in substantially the form set out in Schedule 6 from a bank with the Required Bank Rating which letter of credit has not been breached or disclaimed by the provider.
Liability	includes any loss, liability, damages, costs (including legal costs), expenses and claims.
Local Command Services	means the sending of Commands to a User via the DCC User Interface where the User has opted in the Service Request for the Command to be sent in that way.
Maintenance	includes repair, replacement, upgrade or modification.
Maintenance End Date	has the meaning given to that expression in Section A3.20(b) (The Maintenance Validity Period).
Maintenance Start Date	has the meaning given to that expression in Section A3.20(a) (The Maintenance Validity Period).
Maintenance Validity Period	has the meaning given to that expression in Section A3.19 (The Maintenance Validity Period) or (in the case of the DUIS) Section A3.36 (DCC User Interface Specification and Message Mapping Catalogue).
Major Incident	means an Incident that is categorised as a major incident in accordance with the Service Management Standards, as further described in the Incident Management Policy.
Major Security Incident	means, in relation to any System, any event which results, or was capable of resulting, in that System being Compromised to a material extent.

Malicious Software	means any software program or code intended to destroy, interfere with, corrupt, or cause undesired effects on Data, software, files, programs or codes (whether or not its operation is immediate or delayed, and whether it is introduced wilfully, negligently or without knowledge of its existence).
Manufacturer	means, in respect of any Device Model, the person: (a) that manufactures some or all of the Devices of that Device Model; or (b) on whose behalf some or all of those Devices are manufactured for onward sale or other provision.
Manufacturer Image	has the meaning given to that expression in the GB Companion Specification.
MAP	means Meter Asset Provider.
MAP/Manufacturer Reports	means the reports provided by the DCC under Section H17 (MAP/Manufacturer Reports).
Market Participant Identifier	has the meaning given to that expression in the Retail Energy Code.
MA-S Registry Entry	means a publicly registered 36-bit identifier of that name issued by the Institute of Electrical and Electronics Engineers Standards Association.
Material Risk	means, in respect of any Maintenance of the DCC Systems, that such Maintenance poses either: (a) a material risk of disruption; or (b) a risk of material disruption.
Maximum Credit Value	has the meaning given to that expression in Section J3.8 (Party's Maximum Credit Value).
Mesh Communications Hub	has the meaning given to that expression in the CH Support Materials.
Meter Asset Provider	means, in respect of a Smart Meter, the entity that makes the Smart Meter available for use by Supplier Parties (and which is usually the owner of the Smart Meter).
Message	has the meaning given to that expression in the GB Companion Specification.
Message Authentication Code	has the meaning given to that expression in the GB Companion Specification (or, where used in the context of a communication not specified by the GB

Companion Specification, the meaning associated with the relevant cryptographic algorithm used to generate it).

Message Code	has the meaning given to that expression in the SMETS1 Supporting Requirements.
Message Mapping Catalogue	means the SEC Subsidiary Document of that name set out in Appendix AF.
Meter Asset Manager	has the meaning given to that expression in the UNC.
Meter Operator	has the meaning given to the expression "Meter Operator Agent" in the BSC.
Metering Point	has the meaning given to that expression in the REC.
Minimum Monthly Charge	means, in respect of each Regulatory Year, £25.00, multiplied by the Consumer Prices Index for the October preceding the start of that Regulatory Year, divided by the Consumer Prices Index for October 2014. The relevant amount will be rounded to the nearest pound.
Minimum Service Level	means, in respect of each Performance Measure, the number or percentage intended to represent the minimum level of performance for the activity which is the subject of the Performance Measure, as set out in: (a) Section D11.3 (Code Performance Measures); (b) Section H13.1 (Code Performance Measures); (c) the Reported List of Service Provider Performance Measures; or (d) Section L8.6 (Code Performance Measures).
Modification Proposal	is the term applied to a Draft Proposal once the Panel has agreed it should be progressed further in accordance with Section D3.11 (Initial Consideration by the Panel).
Modification Register	has the meaning given to that expression in Section D1.8 (Modification Register).
Modification Report	has the meaning given to that expression in Section D7.1 (Modification Report).
Modification Report Consultation	has the meaning given to that expression in Section D7.8 (Modification Report Consultation).
Monthly Service Metric	has the meaning set out in the DCC User Interface Services Schedule.

Monthly Service Threshold	has the meaning set out in the DCC User Interface Services Schedule.
MPAN	means, in respect of a Smart Metering System (or Electricity Meter), the unique identifier (or each of the unique identifiers) allocated by the relevant Electricity Network Party to the Metering Point(s) at which the import or export of electricity is recorded by that Smart Metering System (or Electricity Meter).
MPRN	means, in respect of a Smart Metering System (or Gas Meter), the Supply Meter Point Reference Number allocated by the relevant Gas Network Party to the Supply Meter Point at which the supply of gas is recorded by that Smart Metering System (or Gas Meter).
NCSC	means the UK Government's National Cyber Security Centre (or any successor organisation).
Network Enhancement Plan	means a plan by the DCC to undertake works to improve SMETS2+ SM WAN connectivity for a cohort of Communications Hubs installed within a particular geographic area (in either the south Region or the central Region), where the DCC has obtained reasonable evidence to justify that the works are required in order to improve SM WAN connectivity.
Network Evolution Transition and Migration Approach Document (NETMAD)	means the SEC Subsidiary Document set out in Appendix [TBC].
Network Party	means a Party that is either an Electricity Network Party or a Gas Network Party.
Network Time	has the meaning given to that expression in Section G2.45(a) (Network Time).
Never	means a date-time used to denote the timing of an action that must never happen. For Service Requests, in accordance with DUIS, this date-time shall be 00:00:00 on 31st December 3000.
New Party	means a Party that is a Party pursuant to an Accession Agreement.
Non-Critical Service Request	means a Service Request which is not identified as critical in the DCC User Interface Services Schedule (or, in the case of Elective Communication Services, the relevant Bilateral Agreement).

Non-Critical Service Response	means a Service Response in respect of a Non-Critical Service Request.
Non-Default Interest Rate	means, for any day, the base lending rate of the Bank of England at 13.00 hours on that day.
Non-Device Service Request	means a Service Request in respect of a Service identified as a non-device service in the DCC User Interface Services Schedule (or, in the case of Elective Communication Services, the relevant Bilateral Agreement).
Non-Domestic Premises	means premises other than Domestic Premises.
Non-EPCL Device Model	means a Device Model that appears on the Central Products List, but that does not appear within at least one entry on the SMETS1 Eligible Product Combinations List.
OCA Certificate	has the meaning given to that expression in Annex A of the Organisation Certificate Policy.
On-Demand Services	has the meaning given to that expression in Section H3.11 (Categories of Services).
OPR Exceptional Event	means Force Majeure for which the DCC is the Affected Party and which occurs in relation to the matters which are subject to OPR Reporting.
OPR Reporting	means reporting in respect of the operational performance regime under schedule 4 of the DCC Licence (the Operational Performance Regime).
Organisation Authority Revocation List (or Organisation ARL)	has the meaning given to that expression in Annex A of the Organisation Certificate Policy.
Organisation Certificate	has the meaning given to that expression in Annex A of the Organisation Certificate Policy.
Organisation Certificate Policy	means the SEC Subsidiary Document of that name set out in Appendix B.
Organisation Certificate Revocation List (or Organisation CRL)	has the meaning given to that expression in Annex A of the Organisation Certificate Policy.

Organisation Certification Authority (or OCA)	has the meaning given to that expression in Annex A of the Organisation Certificate Policy.
Organisation Certification Practice Statement (or Organisation CPS)	has the meaning given to that expression in Section L9.14 (the Organisation Certification Practice Statement).
Original Party	means a Party that is a Party pursuant to the Framework Agreement.
OTA Header	has the meaning given to that expression in the GB Companion Specification.
Other Enabling Services	means the Services other than the Enrolment Services, the Communications Hub Services and the Communication Services.
Other SEC Party	means a Party that is not the DCC, is not a Network Party, and is not a Supplier Party.
Other User	means, for a Smart Metering System or a Device and any period of or point in time, a User that is not acting in the User Role of Import Supplier, Export Supplier, Gas Supplier, Electricity Distributor, Gas Transporter or Registered Supplier Agent (regardless of whether in fact that User is a Responsible Supplier or the Electricity Distributor or the Gas Transporter or the Registered Supplier Agent during that period of or at that point in time).
Panel	means the body established as such in accordance with Section C2.1 (Establishment of the Panel).
Panel Chair	has the meaning given to that expression in Section C3.1 (Composition of the Panel).
Panel Member	has the meaning given to that expression in Section C3.1 (Composition of the Panel).
Panel Objectives	has the meaning given to that expression in Section C2.2 (Panel Objectives).
Parent Company Guarantee	means a guarantee in such form as the DCC may reasonably approve from an Affiliate of the User in question which guarantee has not been breached or disclaimed by the guarantor and has at least one month left until it expires. Where the guarantor is incorporated outside of the United Kingdom, the

guarantee will only be validly given where supported by a legal opinion regarding capacity and enforceability in a form reasonably satisfactory to the DCC.

Parse and Correlate Software	has the meaning given to that expression in Section H11.1 (Provision of Parse and Correlate Software).
Parse and Correlate Applicability Matrix	has the meaning given to that expression in Section A3.39 (The Parse and Correlate Applicability Matrix).
Party	means, from time to time, a person that has agreed to be bound by this Code (either pursuant to the Framework Agreement or an Accession Agreement), and (without prejudice to Section M8.14 (Consequences of Ceasing to be a Party)) that has not at that time ceased to be so bound in accordance with Section M8 (but excluding SECCo).
Party Category	means, as the context requires, one of the following categories: (a) the Large Supplier Parties collectively; (b) the Small Supplier Parties collectively; (c) the Electricity Network Parties collectively; (d) the Gas Network Parties collectively; and (e) the Other SEC Parties collectively.
Party Data	has the meaning given to that expression in Section M5.10 (Party Data).
Party Details	means, in respect of each Party, the information relating to that Party and corresponding to the heads of information set out in the Application Form from time to time.
Party Signifier	means an identification number allocated to a Party (or SECCo) by the Code Administrator pursuant to Section B1.17 (Party Signifiers), which uniquely identifies that Party (or SECCo) under the Code.
Path 1 Modification	has the same meaning as “Authority-initiated Modification”.
Path 2 Modification	has the same meaning as “Authority Determined Modification.”
Path 3 Modification	has the same meaning as “Self-Governance Modification.”

Performance Indicators	means an indicator of service performance from time to time determined by the Panel under Section H13.5B (Performance Indicators), on which the DCC is to report but which does not constitute a Performance Measure.
Performance Measurement Methodology	means a documented methodology for establishing the performance against each Performance Measure, which may include sampling and/or test communications.
Performance Measurement Period	means, in respect of each Performance Measure, the applicable period over which the Service Level for that Performance Measure is to be measured, as set out in: (a) Section D11.3 (Code Performance Measures); (b) Section H13.1 (Code Performance Measures); (c) the Reported List of Service Provider Performance Measures; or (d) Section L8.6 (Code Performance Measures).
Performance Measures	means the Code Performance Measures and such Service Provider Performance Measures as are specified in the Reported List of Service Provider Performance Measures.
Permitted Communication Service	means, in respect of a User and a Smart Metering System (or a Device forming, or to form, part of that Smart Metering System): (a) a service that results in the sending of a Command to a Device (other than the Communications Hub Function) for which the User is the Responsible Supplier (except where, were the Command to be sent as a Core Communication Service, it would be a Critical Command requiring another User's Digital Signature); (b) a service that only results in the sending of a Command to a Device which is the same as a Command which results from a Service listed in the DCC User Interface Services Schedule for which that User is an Eligible User; or (c) a service which the Panel has (on the application of the User) approved as a permitted communication service.
Personal Data	has the meaning given to that expression in the Data Protection Legislation.
Personnel Authentication Certificate	has the meaning given to that expression in Annex A of the DCCKI Certificate Policy.
Personnel Authentication Certificate Application	has the meaning given to that expression in Annex A of the DCCKI Certificate Policy.
Physical Device Type	means, in respect of a device, its type which may be only one of: a Communications Hub; a SMETS1 ESME; a Single Element Electricity Metering Equipment (as defined in the ESMETS); a Twin Element Electricity Metering Equipment (as defined in the ESMETS); a Polyphase Electricity Metering Equipment (as defined in the ESMETS), a Gas Smart Meter; a Pre-Payment

Meter Interface Device; a HAN Connected Auxiliary Load Control Switch; an IHD; a Standalone Auxiliary Proportional Controller or a Type 2 Device (Other).

Planned Maintenance	means, in respect of a month, Maintenance of the DCC Systems planned prior to the start of that month which will disrupt or poses a Material Risk of disruption to the provision of the services described in a) and b) below (and, where it will disrupt, or poses a Material Risk of disruption to, the provision of these services in relation to Devices associated with Communications Hubs, at least 100,000 Communications Hubs are affected). Planned Maintenance shall be categorised as: (a) High Impact Planned Maintenance where one or more of the following is disrupted: i. end-to-end communications between Users and Communications Hubs in either direction; ii. install & commission activities; or iii. previously scheduled SMETS1 migrations. (b) Low Impact Planned Maintenance which will disrupt or poses a Material Risk of disruption to the provision of services, excluding those services set out in High Impact Planned Maintenance, and will not require changes to be made by Users except in cases where Service Improvements are being made to the SSI.
Point-to-Point Alt HAN Equipment	has the meaning given to that expression in accordance with standard condition 55 of the Electricity Supply Licence (Smart Metering – The Alt HAN Arrangements) and standard condition 49 of the Gas Supply Licence (Smart Metering – The Alt HAN Arrangements).
Post Commissioning Information	has the meaning given to that expression in the Inventory Enrolment and Decommissioning Procedures.
Power Outage & Restoration Alerts Delivery Management Document	means the document established under Section H3.14B (Target Response Times) which contains the Target Response Times (and the methodology for reviewing and determining these times) for the Alerts which are subject to Section H3.14(i) or H3.14(j).
PPM Installation End Date	has the meaning given to that expression in Section A3.14.
PPMID	means a Prepayment Meter Interface Device.
PPMID Technical Specification (or PPMIDTS)	means the part(s) of the document(s) set out in Schedule 9 identified as applying to 'Pre-Payment Meter Interface Devices'.
Pre-Command	means a communication (other than a Service Response, DCC Alert or Device Alert) to be sent from the DCC to a User or to the CoS Party that includes a GBCS

Payload and which has been Digitally Signed by the DCC in accordance with the DCC User Interface Specification.

Preliminary Assessment	has the meaning given to that expression in Section H7.4 (Preliminary Assessment of Elective Communication Services).
Pre-Payment Consumer	means an Energy Consumer at a premises for which the supply of energy is measured by a Smart Meter that is operating as a Pre-Payment Meter.
Pre-Payment Meter	means an Energy Meter operating in a mode which requires a customer to pay charges in advance.
Pre-Payment Meter Interface Device	means either a SMETS1 PPMID; or a device installed (or to be installed) at a premises, which: (a) consists of the components or other apparatus identified in; and (b) as a minimum, has the functional capability specified by and complies with the other requirements of, a Version of the PPMID Technical Specification which was within its Installation Validity Period on the date on which the device was installed.
Principal User Security Obligations	has the meaning given to that expression in Section G1.7 (Obligations on Users).
Principal Version	in relation to: (a) a Technical Specification, has the meaning given to that expression in Section A3.5(a) (Versions of the Technical Specifications); and (b) the GBCS or CPA Security Characteristics, has the equivalent meaning, in accordance with and subject to the provisions of Section A3.27 (GB Companion Specification and CPA Security Characteristics).
Privacy Assessment	means a Full Privacy Assessment, Random Sample Privacy Assessment or User Privacy Self-Assessment.
Privacy Assessment Report	has the meaning given to that expression in Section I2.19 (The Privacy Assessment Report).
Privacy Assessment Response	has the meaning given to that expression in Section I2.21 (The Privacy Assessment Response).
Privacy Controls Framework	means the document of that name developed and maintained by the Panel in accordance with Section I2.15 (The Privacy Controls Framework).

Privacy Self-Assessment	has the meaning given to that expression in Section I2.14 (Categories of Assessment).
Privacy Self-Assessment Report	has the meaning given to that expression in Section I2.26 (The User Privacy Self-Assessment Report).
Private Key	means the private part of an asymmetric Key Pair used for the purposes of public key encryption techniques
Privileged Person	means a member of DCC Personnel who is authorised to carry out activities which involve access to resources, or Data held, on the DCC Total System and which are capable of being a means by which the DCC Total System, any User Systems, any RDP Systems or any Device are Compromised to a material extent.
Problem	means the underlying cause of one or more Incidents, as further described in the Incident Management Policy.
Processing	has the meaning given to that expression in the Data Protection Legislation (and " Process " and " Processes " shall be interpreted accordingly).
Product Recall or Technology Refresh	has the meaning given to that expression in Section F9.6 (Categories of Responsibility).
Production Proving	means the activities which the DCC is permitted to undertake by Section P (Production Proving).
Production Proving Devices	has the meaning given to that expression in Section P1.4 (Production Proving Devices).
Production Proving Function	means the DCC when undertaking Production Proving, and specifically those activities expressly stated in this Code to be undertaken by the Production Proving Function.
Production Proving MPXNs	has the meaning given to that expression in Section P1.8 (Production Proving MPXNs).
Production Proving Registration Data	has the meaning given to that expression in Section P1.11 (Production Proving Registration Data).

Production Proving Systems	means the Systems used by the DCC in its capacity as the Production Proving Function.
Proposed Solution	means the variation under a Modification Proposal that is proposed and can be subsequently changed by the Proposer in accordance with Section D6.15 (Alternative Solutions).
Proposer	has the meaning given to that expression in Section D1.3 (Persons Entitled to Submit Draft Proposals).
Prototype Communications Hub	means a device that as closely achieves compliance with the CHTS as is reasonably practicable from time to time, which is provided (or to be provided) for the purpose of testing as described in Section F10 (Test Communications Hubs).
Public Key	means the public part of an asymmetric Key Pair used for the purposes of public key encryption techniques.
Random Sample Privacy Assessment	has the meaning given to that expression in Section I2.13 (Categories of Assessment).
RDP	means Registration Data Provider.
RDP Entry Process Tests	has the meaning given to that expression in Section E4.2 (RDP Entry Process Tests).
RDP ID	means, in respect of an RDP acting in its capacity as such (including a Network Party where it is deemed to have nominated itself for that role), one of the unique identification numbers accepted by the DCC in respect of that RDP under Section E2.16 (Security Obligations and RDP IDs).
RDP Signifier	means an identification number allocated to an RDP by the Code Administrator pursuant to Section B1.19 (RDP Signifiers), which uniquely identifies that RDP under the Code.
RDP Systems	means any Systems: (a) which are operated by or on behalf of an Electricity Distributor or Gas Transporter responsible for providing (or procuring the provision of) Registration Data in respect of a particular MPAN or MPRN; and (b) which are used in whole or in part for generating Data for communication to the OCA, ICA or DCCKICA, or receiving Data from the OCA, ICA or DCCKICA

(including any Systems which store or use Secret Key Material for such purposes),
and any other Systems from which the Systems described in paragraphs (a) and (b) are not Separated.

REC	means the Retail Energy Code maintained pursuant to Condition 11B of the Electricity Supply Licences and Condition 11 of the Gas Supply Licences.
REC Code Manager	has the meaning given to the expression "Code Manager" in the REC.
Recoverable Costs	has the meaning given to that expression in Section C8.2 (SEC Costs and Expenses).
Recovery Certificate	has the meaning given to that expression in Section L10.30(d)(ii) (Definitions).
Recovery Costs	has the meaning given to that expression in Section L10.17 (Recovery Costs).
Recovery Event	has the meaning given to that expression in Section L10.14 (Recovery Events).
Recovery Key Pair	has the meaning given to that expression in Section L10.30(d) (Definitions).
Recovery Private Key	has the meaning given to that expression in Section L10.30(d)(i) (Definitions).
Refinement Process	has the meaning given to that expression in Section D6 (Refinement Process).
Region	means each of the regions of Great Britain that are subject to different DCC Service Provider Contracts, and the region into which a premises (or future potential premises) falls shall be: (a) identified insofar as reasonably practicable in a document published by the DCC (or the Panel on behalf of the DCC) from time to time; or (b) where a premises (or future potential premises) is not so identified, confirmed by the DCC on application of any Party or in response to the resolution of an Incident regarding the fact that a premises (or future potential premises) is not so identified, and once a premises has been identified by the DCC as being in a particular region, the DCC shall not identify that premises as being in a different region (unless agreed by the Supplier Party or Supplier Parties Registered for the MPAN and/or MPRN at the premises and the Network Party or Network Parties for the network(s) to which the premises is, or is intended to be, connected).

Registered	means the Registered Supplier, as defined in the REC (and “ Registration ” shall be interpreted accordingly).
Registered Supplier Agent	means, for a Smart Metering System or a Device and any period of or point in time, the User that is: (a) in the case of electricity, appointed as the Meter Operator in respect of the MPAN relating to that Smart Metering System or Device; or (b) in the case of gas, appointed as the Meter Asset Manager in respect of the MPRN relating to that Smart Metering System or Device, (in either case) during that period of or at that point in time.
Registration Authority	means the DCC, acting in its capacity as such for the purposes of (and in accordance with the meaning given to that expression in any) the Certificate Policies.
Registration Data	has the meaning given to that expression in Section E1 (Reliance on Registration Data).
Registration Data Interface	means the communications interface designed to allow the communications referred to in Section E (Registration Data) to be sent between the DCC and the Registration Data Providers.
Registration Data Interface Code of Connection	means the SEC Subsidiary Document of that name set out in Appendix Y.
Registration Data Interface Documents	means the Registration Data Interface Code of Connection and Registration Data Interface Specification.
Registration Data Interface Specification	means the SEC Subsidiary Document of that name set out in Appendix X.
Registration Data Provider	means, in respect of each Network Party, the person nominated as such in writing to the DCC from time to time by that Network Party, on the basis that more than one Party may specify the same Registration Data Provider, and that the Network Party shall be deemed to have so nominated itself in the absence of any other nomination.
Regulatory Year	means a period of twelve months beginning at the start of 1 April in any calendar year and ending at the end of 31 March in the next following calendar year.

Related Person	means, in relation to an individual, that individual's spouse, civil partner, parent, grandparent, sibling, child, grandchild or other immediate family member; any partner with whom that individual is in partnership; that individual's employer; any Affiliate of such employer; any person by whom that individual was employed in the previous 12 months; and any company (or Affiliate of a company) in respect of which that individual (individually or collectively with any member of his immediate family) controls more than 20% of the voting rights.
Release Management	means the process adopted for planning, scheduling and controlling the build, test and deployment of releases of IT updates, procedures and processes.
Relevant Device	has the meaning given to that expression in Section L10.30(a) (Definitions).
Relevant Instruments	means: (a) the Electricity Act and the Gas Act; (b) the Data Protection Legislation; (c) the Energy Licences; and (d) the Energy Codes.
Relevant Private Key	has the meaning given to that expression in Section L10.30(c) (Definitions).
Relevant Subscriber	has the meaning given to that expression in Section L10.30(b).
Relevant Technical Specification	Means: a. in relation to an Electricity Smart Meter, Gas Smart Meter, HAN Connected Auxiliary Load Control Switch, IHD, Pre-Payment Meter Interface Device, or Standalone Auxiliary Proportional Controller, the ESMETS, GSMETS, HCALCSTS, IHDTs, PPMIDTS or SAPCTS respectively; b. in relation to a Communications Hub Function, the CHTS (but excluding those provisions that are described as applying only to "Gas Proxy Functions"); or c. in relation to a Gas Proxy Function, the CHTS (but only those provisions that are described as applying to "Gas Proxy Functions").
Relying Party	means a person who, pursuant to the Code, receives and relies upon a Certificate.
Relying Party Obligations	means the provisions in respect of Relying Parties set out at Section L12 of the Code (the Relying Party Obligations).
Remote Party	has the meaning given to that expression in GBCS.

Remote Party Role	has the meaning given to that expression, and comprises the values allowed for the ASN.1 type RemotePartyRole identified, in the GB Companion Specification, and additionally comprises the values set out in Table 1 in Annex A to Section L (Smart Metering Key Infrastructure and DCC Key Infrastructure).
Remote Party Role Code	means the integer value for the Remote Party Role specified in the GB Companion Specification or Table 1 in Annex A to Section L (Smart Metering Key Infrastructure and DCC Key Infrastructure), as applicable.
Replacement Meter	means an Energy Meter that replaces an Energy Meter previously installed at the same premises.
Replay	has the meaning given to that expression in the SMETS1 Supporting Requirements.
Report Phase	has the meaning given to that expression in Section D7.1 (Modification Report).
Reported List of Service Provider Performance Measures	means the document which: (a) is initially provided to Parties, the Panel and the Authority by the Secretary of State, bears the title 'Reported List of Service Provider Performance Measures' and identifies itself as being produced for the purposes of Section H13 (Performance Standards and Reporting); and (b) specifies a number of Service Provider Performance Measures together (in each case) with the applicable Service Level Requirement, Target Service Level, Minimum Service Level and Performance Measurement Period, as it may be modified from time to time in accordance with Section H13.2 (Service Provider Performance Measures).
Required Bank Rating	means that a person has one or more long-term Recognised Credit Ratings of at least (based, where the person has more than one such rating, on the lower of the ratings): (a) "A-" by Standard & Poor's Financial Services LLC; (b) "A3" by Moody's Investors Services Inc; and/or (c) "A-" by Fitch Ratings Limited; and/or (d) "A(low)" by DBRS Ratings Limited.
Response	for SMETS2+ Devices, has the meaning given to that expression in the GB Companion Specification; and otherwise, it shall mean a Service Response or a Pre-Command as the context implies.
Responsible Supplier	means, in respect of a Smart Metering System (or any Device forming, or intended to form, part of a Smart Metering System) which relates to: (a) an MPAN, the Import Supplier for that Smart Metering System; and/or (b) an MPRN, the Gas Supplier for that Smart Metering System.

Restricted Communication Service	means, in respect of any User requesting an Elective Communication Service, a service which is not a Permitted Communication Service.
RF Noise Testing	means the Testing Service described in Section H14.46 (Radio Frequency Noise Testing).
Risk Treatment Plan	has the meaning given to that expression in Section G7.19(e) (Duties and Powers of the Security Sub-Committee).
Root DCA	has the meaning given to that expression in Annex A of the Device Certificate Policy.
Root DCA Certificate	has the meaning given to that expression in Annex A of the Device Certificate Policy.
Root DCCKICA Certificate	has the meaning given to that expression in the DCCKI Certificate Policy
Root ICA	has the meaning given to that expression in the IKI Certificate Policy.
Root ICA Certificate	has the meaning given to that expression in the IKI Certificate Policy.
Root OCA	has the meaning given to that expression in Annex A of the Organisation Certificate Policy.
Root OCA Certificate	has the meaning given to that expression in Annex A of the Organisation Certificate Policy.
SAPC	means a Standalone Auxiliary Proportional Controller.
SAPC Technical Specification (or SAPCTS)	means the part(s) of the document(s) set out in Schedule 9 identified as applying to 'Standalone Auxiliary Proportional Controllers'.
Scheduled Election	has the meaning given to that expression in Section C4.2 (Election of the Elected Members).
Scheduled Services	has the meaning given to that expression in Section H3.11 (Categories of Services).

SEC Arrangements	has the meaning given to that expression in the DCC Licence.
SEC Materials	has the meaning given to that expression in Section M5.1 (SEC Materials).
SEC Objectives	means, in respect of the Charging Methodology only, the Charging Objectives and, in all other cases, the General SEC Objectives.
SEC Release	means a package of one or more approved Modification Proposals which is implemented in accordance with the SEC Release Management Policy.
SEC Release Implementation Document	means a document established under Section D10.12 (SEC Release Implementation Document) and which contains the information listed in Section D10.13.
SEC Release Management Policy	means the document established under Section D10.7 (SEC Release Management Policy) and which contains the information listed in Section D10.8.
SEC Release Testing Approach Document	means a document established under Section D10.18 (SEC Release Testing Approach Document) and which contains the information listed in Section D10.19 in relation to the testing to be undertaken by the DCC with regards to a SEC Release.
SEC Variation Testing Approach Documents	means the SEC Subsidiary Documents set out in Appendix AJ, Appendix AK, Appendix AN, Appendix AQ and Appendix AR.
SECCo	has the meaning given to that expression in Schedule 4.
Secret Key Material	means any Private Key, Shared Secret, Symmetric Key, SMETS1 Symmetric Key or other functionally equivalent cryptographic material (and any associated input parameter) that is generated and maintained by a Party or RDP for the purposes of complying with its obligations under, or in relation to, this Code, but excluding: (a) any such material (and associated input parameters) to the extent that it is maintained on Devices; (b) any Digital Signature; and (c) any output of a Cryptographic Hash Function operating on an input communication.
Secretariat	has the meaning given to that expression in Section C7.6 (Secretariat).

Secretary of State	has the meaning given to that expression in the Interpretation Act 1978.
Secure	has the meaning given to that expression in Section G3.28(a) (SMETS1 Smart Metering Systems).
Security Check	means the vetting of personnel, carried out to a level that is identified by that name, under and in accordance with the HMG National Security Vetting Procedures.
Security Controls Framework	has the meaning given to that expression in Section G7.19(a) (Duties and Powers of the Security Sub-Committee).
Security Obligations and Assurance Arrangements	means: (a) in the case of the DCC Total System, those requirements set out in Sections G2, G4 to G7 and G9; (b) in the case of User Systems, those requirements set out in Sections G3 to G8; (c) in the case of Smart Metering Systems comprising SMETS2+ Devices, those requirements set out in: (i) the Commercial Product Assurance Security Characteristics (as defined in the GB Companion Specification); and (ii) the provisions of Sections G3 (System Security: Obligations on Users) to G8 (User Security Assurance) which are applicable to such Smart Metering Systems; (d) in the case of SMETS1 Smart Metering Systems: (i) those security requirements set out in (as applicable) the ESMETS, the GSMETS and the IHDTS with a Principal Version number of 1; and (ii) those requirements set out in the provisions of Sections G3 to G8 which are applicable to such Smart Metering Systems; and (e) in the case of RDP Systems, those requirements set out in Section E2.14 (Security Obligations).
Security Requirements	means a document that: (a) identifies the security controls that are considered appropriate to mitigate the security risks relating to the End-to-End Smart Metering System; and (b) indicates those provisions having effect (or being proposed to have effect) in or under the Security Obligations and Assurance Arrangements or any Energy Licences which require that such security controls are established and maintained.
Security Risk Assessment	means a document that identifies, analyses and evaluates the security risks which relate to the End-to-End Smart Metering System.
Security Sub-Committee	means the Sub-Committee established pursuant to Section G7 (Security Sub-Committee).

Security Sub-Committee Guidance	means guidance in respect of the security of any System, updated from time to time by the Security Sub-Committee.
Security Sub-Committee (Network) Members	has the meaning given to that expression in Section G7.8 (Membership of the Security Sub-Committee).
Security Sub-Committee (Other User) Member	has the meaning given to that expression in Section G7.10 (Membership of the Security Sub-Committee)
Security Sub-Committee (Shared Resource Provider Member)	has the meaning given to that expression in Section G7.12 (Membership of the Security Sub-Committee)
Security Sub-Committee (Supplier) Members	has the meaning given to that expression in Section G7.6 (Membership of the Security Sub-Committee).
Security Sub-Committee Chair	has the meaning given to that expression in Section G7.5 (Membership of the Security Sub-Committee).
Security Sub-Committee Member	has the meaning given to that expression in Section G7.3 (Membership of the Security Sub-Committee).
Self-Governance Modification	has the meaning given to that expression in Section D2.7 (Self-Governance Modifications).
Self-Service Interface	has the meaning given to that expression in Section H8.15 (Self-Service Interface).
Self-Service Interface Code of Connection	means the SEC Subsidiary Document of that name set out in Appendix AI.
Self-Service Interface Access Control Specification	means the SEC Subsidiary Document of that name set out in Appendix AH.
Separate	means, in relation to any System, software or firmware, to establish controls which are appropriately designed to ensure that no communication may take place between it and any other System, software or firmware (as the case may be) except to the extent that such communication is for a necessary purpose having regard to the intended operation of the System, software or firmware (and " Separated " and " Separation " are to be interpreted accordingly).

Sequenced Services	has the meaning given to that expression in Section H3.13 (Sequenced Services).
Service Desk	has the meaning given to that expression in Section H8.19 (Service Desk).
Service Level	means, in respect of each Performance Measure and each Performance Measurement Period: (a) where that Performance Measure relates to an activity that is performed on a number of separate occasions: (i) the number of occasions during the Performance Measurement Period on which that activity was performed in accordance with the relevant Service Level Requirement, expressed as a percentage of, or a number in relation to: (ii) the total number of occasions during the Performance Measurement Period on which that activity was performed; (b) where that Performance Measure relates to an activity that is performed over a period of time: (i) the period of time during the Performance Measurement Period on which that activity was performed, expressed as a percentage of: (ii) the period of time during the Performance Measurement Period on which that activity would have been performed if it had been performed in accordance with the relevant Service Level Requirement, provided that in each case the DCC may establish the Service Level for a Performance Measure in accordance with the Performance Measurement Methodology.
Service Level Requirements	means: (a) in respect of each Code Performance Measure, the Target Response Time, Target Resolution Time or Target Availability Time (applicable in accordance with the table at Section D11.3 (Code Performance Measures), at Section H13.1 (Code Performance Measures) or at Section L8.6 (Code Performance Measures)); or (b) in respect of each Service Provider Performance Measure, the standard to which the relevant DCC Service Provider is obliged by its DCC Service Provider Contract to perform the activity that is the subject of the Service Provider Performance Measure.
Service Management Service Request	means a query raised by a Party via the Self-Service Interface and/or the Service Desk.
Service Management Standards	means the Information Technology Infrastructure Library (ITIL®) standards for IT services management, as issued and updated by the Cabinet Office from time to time.
Service Provider Performance Measures	means the performance measures (however described and from time to time) for each DCC Service Provider under each DCC Service Provider Contract.

Service Reference Variant	means a reference assigned to a Service Request in accordance with the DCC User Interface Specification.
Service Request	means a request for one of the Services listed in the DCC User Interface Services Schedule (or, in the case of Elective Communication Services, provided for in the relevant Bilateral Agreement).
Service Request Processing Document	means the SEC Subsidiary Document of that name set out in Appendix AB.
Service Response	means, in respect of a Service Request sent by a User, one or more communications in response to that Service Request from the DCC to the User (not being a Pre-Command).
Services	means the services provided, or to be provided, by the DCC pursuant to Sections F5 (Communications Hub Forecasts and Orders) to F10 (Test Communications Hubs), Section H (DCC Services), Section L (Smart Metering Key Infrastructure and DCC Key Infrastructure) or Section N6 (Transition and Migration Approach Document), including pursuant to Bilateral Agreements.
Services FM	means, in respect of any Services, the occurrence of any of the following: (a) war, civil war, riot, civil commotion or armed conflict; (B) terrorism (being the use or threat of action designed to influence the government or intimidate the public or for the purpose of advancing a political, religious or ideological cause and which involves serious violence against a person or serious damage to property, endangers a person's life, creates a serious risk to the public or is designed to seriously interfere with or disrupt an electronic system); (c) nuclear, chemical or biological contamination; (d) earthquakes, fire, storm damage or severe flooding (if in each case it affects a significant geographical area); and/or (e) any blockade or embargo (if in each case it affects a significant geographical area).
Services IPR	has the meaning given to that expression in Section M5.14 (Services IPR).
Shared Resource Provider	has the meaning given to that expression in Section G10.2 (Meaning of Shared Resources).
Shared Resource User	has the meaning given to that expression in Section G10.7 (Additional Obligations following User Security Assessments).
Shared Resources	has the meaning given to that expression in Section G10.1 (Meaning of Shared Resources).

Shared Secret	means a parameter that is (or may be) derived from a Private Key and a Public Key which are not from the same Key Pair in accordance with the GB Companion Specification.
Shared Solution Alt HAN Equipment	has the meaning given to that expression in accordance with standard condition 55 of the Electricity Supply Licence (Smart Metering – The Alt HAN Arrangements) and standard condition 49 of the Gas Supply Licence (Smart Metering – The Alt HAN Arrangements).
Signed Pre-Command	means a communication containing the Digitally Signed GBCS Payload of a Pre-Command that has been Digitally Signed by a User or the CoS Party.
Significant Code Review	means a review of one or more matters by the Authority which the Authority considers is: (a) related to this Code (whether on its own or together with other Energy Codes); and (b) likely to be of significance in relation to the Authority’s principal objective and/or general duties (as set out in section 3A of the Electricity Act and section 4AA of the Gas Act), and statutory functions, and concerning which the Authority has issued a notice that the review will constitute a significant code review.
Significant Code Review Phase	means, in respect of each Significant Code Review, the period from the date on which the Authority issues the notice stating that the matter is to constitute a Significant Code Review (including where the Authority issues a direction under Section D5.7 (Significant Code Review: Backstop Direction) or proposes an Authority-Led Variation by issuing a direction under Section D9A.2 (Authority Power to Develop a Proposed Variation)), and ending on the earlier of: (a) the date on which the Authority, or DCC at the direction of the Authority, submits a Draft Proposal in respect of any variations arising out of a Significant Code Review; (b) where the Authority has proposed an Authority-Led Variation, the date on which the Authority makes a decision in accordance with Section D9A.11 (Authority Decision); (c) the date on which the Authority issues a conclusion that no modification is required to this Code as a result of the Significant Code Review; or (d) the date 28 days after the date on which the Authority issues its conclusion document in respect of the Significant Code Review.
SIMCH Aerial	means an aerial and any other equipment required to enable a Special Installation Mesh Communications Hub to connect to the SMETS2+ SM WAN.
SM WAN	means the SMETS1 SM WAN or the SMETS2+ SM WAN.

SM WAN Coverage Database	means the information made available via the Self-Service Interface pursuant to Section H8.16(f) (and which is also available via the CH Ordering System).
Small Supplier Party	means a Supplier Party which, at the time at which it is necessary to assess the status of the Party, supplies electricity and/or gas to fewer than 250,000 (two hundred and fifty thousand) Domestic Premises.
Smart Card Token	has the meaning given to that expression in Annex A of the DCCKI Certificate Policy.
Smart Meter	means either an Electricity Smart Meter or a Gas Smart Meter (as the context requires).
Smart Meter Device Assurance Sub-Committee	means the Sub-Committee established under Section F12 (Smart Meter Device Assurance Sub-Committee).
Smart Metering Equipment Technical Specifications (SMETS)	shall be interpreted in accordance with the provisions of Section A2.12.
Smart Metering Inventory	means an electronic database of Devices which records (as a minimum) the following information in respect of each Device: (a) its Device Type; (b) its Device ID; (c) its Device Model (provided that no firmware version is needed for Type 2 Devices); (d) for Devices other than Type 2 Devices, its SMI Status, and the date from which that status has applied; (e) for Devices other than Type 2 Devices, its SMI Status history; (f) where it is a Smart Meter which has been installed, the related MPAN or MPRN and the Communications Hub Function with which that Smart Meter is associated; and (g) where it is a Device (other than a Smart Meter or a Communications Hub Function), the Smart Meter or Gas Proxy Function with which that Device is associated.
Smart Metering Key Infrastructure (or SMKI)	means the public key infrastructure established by DCC for the purpose, among other things, of providing secure communications between Devices and Users.
Smart Metering System	means either: (a) an Electricity Smart Meter, together with the Communications Hub Function with which it is Associated, together with any SAPC or Additional Electricity Smart Meter joined to that Communications Hub Function, together with the Type 1 Devices (if any) that may from time to time be Associated with that Electricity Smart Meter; or

(b) a Gas Smart Meter together with the Communications Hub Function with which it is Associated and an Associated Gas Proxy Function, together with the Type 1 Devices (if any) that may from time to time be Associated with that Gas Proxy Function.

Smart Mode	has the meaning given to that expression at Section H16.15 (Definition).
SMDA Sub-Committee	means the Smart Meter Device Assurance Sub-Committee.
SMETS1	means each composite document set out in Schedule 9 which includes within it an ESMETS, a GSMETS and an IHDTS with a Principal Version number of 1.
SMETS1 Alert	has the meaning given to that expression in the DCC User Interface Specification.
SMETS1 CH	means a physical device comprising a SMETS1 CHF and a SMETS1 GPF.
SMETS1 CHF	means that part of a SMETS1 ESMS or SMETS1 GSMS which incorporates the wide area network interface and controls which Devices can communicate via the associated home area network interface.
SMETS1 Critical Service Request	means a Critical Service Request which is targeted at a SMETS1 Device and is a SMETS1 Service Request.
SMETS1 Cryptographic Key Management Policy	means any SEC Subsidiary Document of that name set out in Appendix AT, which is originally to be developed pursuant to Section L14.7 (The SMETS1 Cryptographic Key Management Policy: Document Development) and Section L14.8 (Document Development: Process).
SMETS1 CSP System	has the meaning given to that expression at Section G1.11 (The SMETS1 CSP System).
SMETS1 Device	means one of the following: (a) a SMETS1 ESME; (b) a SMETS1 GSME; (c) a SMETS1 CHF; (d) a SMETS1 GPF; (e) a SMETS1 PPMID; (f) a SMETS1 IHD; and (g) any other device operating on a home area network created by a SMETS1 CHF.
SMETS1 Device Model	means the Device Model of a Device which complies with the requirements of SMETS1 (or which, in combination with other Devices, complies with the requirements of SMETS1).

SMETS1 Eligible Product Combinations	has the meaning given to that expression in Section F2.10A (SMETS1 Lists).
SMETS1 ESME	means that part of a SMETS1 ESMS that is not a SMETS1 CH.
SMETS1 ESMS	has the meaning given to the expression 'ESMS' in SMETS1.
SMETS1 Future Dated Critical Service Request	means a SMETS1 Critical Service Request which contains an execution date-time which is in the future according to the DCC's time.
SMETS1 GPF	means that part of a SMETS1 GSMS that is not a SMETS1 CHF and is powered by mains electricity. For the avoidance of doubt, a SMETS1 GPF excludes any SMETS1 GSME.
SMETS1 GSME	means that part of a SMETS1 GSMS that is not a SMETS1 CH.
SMETS1 GSMS	has the meaning given to the expression 'GSMS' in SMETS1.
SMETS1 IHD	has the meaning given to the expression 'IHD' in SMETS1.
SMETS1 Installation	means a SMETS1 CHF installed in respect of an Energy Consumer's premises, the SMETS1 GPF which is part of the same SMETS1 CH, the SMETS1 ESME with which the SMETS1 CHF can communicate, and the set of other Devices (if any) which are authorised to communicate over the HAN to which the CHF controls access. The set of other Devices within a SMETS1 Installation shall include at most one SMETS1 GSME, at most one SMETS1 PPMID, at most one SMETS1 IHD and at most one SMETS1 CAD.
SMETS1 Pending Product Combinations Tests	has the meaning given to that expression in Section H14.36A (SMETS1 Pending Product Combinations Tests).
SMETS1 Pending Product Combinations	has the meaning given to that expression in Section F2.10A (SMETS1 Lists).
SMETS1 PPMID	means a SMETS1 IHD that is capable of upgrading its Firmware in response to an Instruction sent over the SMETS1 SM WAN.
SMETS1 Response	has the meaning given to that expression in the DCC User Interface Specification.

SMETS1 Service Provider	means the DCC when carrying out the role and activities ascribed to a SMETS1 Service Provider in this Code; and where the DCC relies on the services of more than one DCC Service Provider for the purposes of carrying out that role and those activities, it shall be treated as being a separate SMETS1 Service Provider to the extent of its reliance on the services of each such DCC Service Provider.
SMETS1 Service Provider PKI (or S1SPKI)	means any public key infrastructure established (or to be established) for the purpose, among other things, of providing secure communications between the DCC and SMETS1 Devices.
SMETS1 Service Request	has the meaning given to that expression in the DCC User Interface Specification.
SMETS1 Smart Metering System	means a Smart Metering System comprising SMETS1 Devices.
SMETS1 SMS	means a SMETS1 Smart Metering System.
SMETS1 SMSO	means a smart meter system operator that provides (or used to provide) some or all of the data and/or communications services in respect of SMETS1 Devices.
SMETS1 SM WAN	means the means by which the DCC sends, receives and conveys communications to and from some or all SMETS1 CHF's (which may differ between SMETS1 CHF's).
SMETS1 Supported Service Request	has the meaning given to that expression in the DCC User Interface Specification.
SMETS1 Supporting Requirements	means the SEC Subsidiary Document set out in Appendix AM.
SMETS1 Symmetric Key	means an Authentication Key or a symmetric key which is in either case used to process communications with SMETS1 Devices.
SMETS1 Symmetric Key Arrangement	means any arrangement that is established (or is to be established) for the purpose, among other things, of providing secure communications between the DCC and SMETS1 Devices by means of using SMETS1 Symmetric Keys.

SMETS2+ Communications Hub means a Communications Hub which is not a SMETS1 CH.

SMETS2+ Device means a Device that:

- a. consists of the components or other apparatus identified in; and
- b. as a minimum, has the functional capability specified by and complies with the other requirements of, a Relevant Technical Specification (and, where applicable, the part(s) of the Relevant Technical Specification relevant to the Physical Device Type in question) in a Version of the Relevant Technical Specification which was within its Installation Validity Period on the date on which the Device was installed and which has (or had) a Principal Version that is 2 or higher.

SMETS2+ Device Model means the Device Model of a Device which complies with the requirements of SMETS2+ (or which, in combination with other Devices, complies with the requirements of SMETS2+).

SMETS2+ SM WAN means the means by which the DCC sends, receives and conveys communications to and from SMETS2+ Communications Hub Functions (which may differ from Region to Region).

S1SP means the SMETS1 Service Provider.

S1SP Alert has the meaning given to that expression in the DCC User Interface Specification.

S1SPKI Certificate Policy (or S1SPKI CP) means any SEC Subsidiary Document of that name set out in Appendices AP1 or AP2, which is originally to be developed pursuant to Section L14.5 (The S1SPKI Certificate Policies: Document Development) and Section L14.8 (Document Development: Process).

S1SPKI Certification Practice Statement (or S1SPKI CPS) has the meaning given to that expression in Section L14.9 (The S1SPKI Certification Practice Statement).

S1SPKI Registration Authority Policies and Procedures (or S1SPKI RAPP) means any SEC Subsidiary Document of that name set out in Appendix [TBC] or the section of the associated S1SPKI Certificate Policy identified as being the S1SPKI RAPP for that S1SPKI Certificate Policy, which is originally to be developed pursuant to Section L14.6 (The S1SPKI Registration Authority Policies and Procedures: Document Development) and Section L14.8 (Document Development: Process).

S1SPKM Compliance Policy means the SEC Subsidiary Document of that name set out in Appendix AO.

S1SPKM Document Set	has the meaning given to that expression in Section L14.3 (The S1SPKM Document Set).
S1SPKM SEC Documents	has the meaning given to that expression in Section L.14.4 (The S1SPKM SEC Documents).
SMI Status	means the status indicator of each Device recorded within the Smart Metering Inventory, which indicator may (as a minimum) be set to any one of the following: (a) 'pending', indicating that the Device has not yet been Commissioned; (b) 'installed not commissioned', indicating that the Device is ready to be Commissioned, but has not yet been Commissioned; (c) 'commissioned', indicating that the Device has been Commissioned; (d) 'decommissioned', indicating that the Device has been Decommissioned; (e) 'suspended', indicating that the Device has been Suspended; (f) 'whitelisted', indicating that a Device has been added to the Device Log of a Communications Hub Function but that communications between the Device and the Communications Hub Function may not yet have been established; (g) 'recovery', indicating that the processing of communications destined for the Device has been disabled (other than for communications originated by the DCC) in accordance with the SMKI Recovery Procedure; or (h) 'recovered', indicating that the Data comprising the Device Security Credentials have successfully been updated using Data from one or more OCA Certificates and/or Organisation Certificates for which DCC is the Subscriber as further described in the SMKI Recovery Procedure.
SMKI and Repository Entry Process Tests	means the tests described in Section H14.22 (SMKI and Repository Entry Process Tests).
SMKI and Repository Test Scenario Document	means the SEC Subsidiary Document of that name set out in Appendix K.
SMKI Code of Connection	means the SEC Subsidiary Document of that name set out in Appendix N, which: (a) has the purpose described in Section L4.5 (SMKI Code of Connection); and (b) is originally to be developed pursuant to Sections L4.6 to L4.7 (SMKI Interface Document Development).
SMKI Compliance Policy	means the SEC Subsidiary Document of that name set out in Appendix C.
SMKI Document Set	has the meaning given to that expression in Section L9.3 (the SMKI Document Set).
SMKI Independent Assurance Scheme	has the meaning given to that expression in Part 2.1 of the SMKI Compliance Policy (DCC: Duty to Submit to an SMKI Independent Assurance Scheme).

SMKI Interface Design Specification	means the SEC Subsidiary Document of that name set out in Appendix M, which: (a) has the purpose described in Section L4.4 (SMKI Interface Design Specification); and (b) is originally to be developed pursuant to Sections L4.6 to L4.7 (SMKI Interface Document Development).
SMKI Participants	means the DCC (acting in its capacity as the provider of the SMKI Services), all Authorised Subscribers and all Relying Parties.
SMKI PMA	means the Sub-Committee of that name established pursuant to Section L1 (SMKI Policy Management Authority).
SMKI PMA (Network) Member	has the meaning given to that expression in Section L1.8 (Membership of the SMKI PMA).
SMKI PMA (Supplier) Members	has the meaning given to that expression in Section L1.6 (Membership of the SMKI PMA).
SMKI PMA Chair	has the meaning given to that expression in Section L1.5 (Membership of the SMKI PMA).
SMKI PMA Guidance	means guidance in respect of the SMKI Document Set, updated from time to time by the SMKI PMA.
SMKI PMA Member	has the meaning given to that expression in Section L1.3 (Membership of the SMKI PMA).
SMKI Recovery Key Guidance	has the meaning given to that expression in Section L10.9 (The SMKI Recovery Key Guidance).
SMKI Recovery Procedure	means the SEC Subsidiary Document of that name set out in Appendix L, which: (a) has the purpose described in Section L10.1 (The SMKI Recovery Procedure); and (b) is originally to be developed pursuant to Sections L10.7 to L10.8 (SMKI Recovery Procedure: Document Development).
SMKI Registration Authority Policies and Procedures (or SMKI RAPP)	means the SEC Subsidiary Document of that name set out in Appendix D, which is originally to be developed pursuant to Sections L9.5 to L9.6 (the Registration Authority Policies and Procedures: Document Development).

SMKI Repository	has the meaning given to that expression in Section L5.1 (the SMKI Repository).
SMKI Repository Code of Connection	means the SEC Subsidiary Document of that name set out in Appendix P, which: (a) has the purpose described in Section L6.5 (SMKI Repository Code of Connection); and (b) is originally to be developed pursuant to Sections L6.6 to L6.7 (SMKI Repository Interface Document Development).
SMKI Repository Interface	has the meaning given to that expression in Section L6.3 (the SMKI Repository Interface).
SMKI Repository Interface Design Specification	means the SEC Subsidiary Document of that name set out in Appendix O, which (a) has the purpose described in Section L6.4 (SMKI Repository Interface Design Specification); and (b) is originally to be developed pursuant to Sections L6.6 to L6.7 (SMKI Repository Interface Document Development).
SMKI Repository Service	has the meaning given to that expression in Section L5.2 (the SMKI Repository Service).
SMKI SEC Documents	has the meaning given to that expression in Section L9.4 (the SMKI SEC Documents).
SMKI Service Interface	has the meaning given to that expression in Section L4.3 (the SMKI Service Interface).
SMKI Services	has the meaning given to that expression in Section L3.1 (the SMKI Services).
SMKI Specialist	means an individual (rather than a body corporate, association or partnership) to be appointed and remunerated under a contract with SECCo, who: (a) has experience and expertise in public key infrastructure arrangements; (b) is sufficiently independent of any particular Party or RDP, or class of Parties or RDPs, and of the Independent SMKI Assurance Service Provider; and (c) is chosen by the SMKI PMA Chair from time to time.
SOC2	means the Service Organisation Control 2 standard, as defined by the American Institute of Certified Public Accountants.
SoLR Change of Supplier Processes	means, in relation to the Devices forming part of a Smart Metering System for a premises of a Pre-Payment Consumer of a Failing Energy Supplier, the replacement of any Device Security Credentials on those Devices that pertain to

the Failing Energy Supplier with those that pertain to the Supplier of Last Resort.

Solution Architecture Information

means a description of the overall technical architecture of the DCC Systems (or any part thereof) in more detail than the Technical Architecture Document so as to describe the individual components of the DCC Systems (including hardware and software) and how they interface with the User Systems.

Special Installation Mesh Communications Hub

means a WAN Variant (in the central Region and the south Region) which is distinguishable from a standard Mesh Communications Hub by the existence of an additional external aerial port.

Special Second-Fuel Installation

means, in the case of a premises for which there is both an Electricity Smart Meter and a Gas Smart Meter, where on the installation of the second of those two meters to be installed it was necessary to replace the Communications Hub relating to the first of those two meters to be installed because that Communications Hub was not able to serve the second of those two meters to be installed (with the consequence that the Communications Hub that is replaced is removed from the premises and returned to the DCC).

Special WAN-Variant Installation

means that the DCC requests (in accordance with the Incident Management Policy) that a Supplier Party replaces an installed Communications Hub with a Communications Hub of a different WAN Variant to the installed Communications Hub, with the consequence that the Communications Hub that is replaced is removed from the premises and returned to the DCC.

Specimen Accession Agreement

means the specimen form of agreement set out in Schedule 2.

Specimen Bilateral Agreement

means the specimen form of agreement set out in Schedule 3.

Specimen Enabling Services Agreement

means the form of specimen agreement set out in Schedule 7 (Specimen Enabling Services Agreement).

SSC Guidance for Device Security Assurance and Triage

means the document of that name developed by the SSC in accordance with Section G7.19(g).

SSI Baseline Requirements Document

means a document produced and maintained by the DCC in accordance with the Self-Service Interface Access Control Specification.

SSI Change Governance Process	means a document established under Section H8.15A (Self-Service Interface) and contains the governance arrangements for making changes to the Self-Service Interface.
Stage 1 Assurance Report	has the meaning given to that expression in Part 4.4 of the SMKI Compliance Policy (Nature of the Initial Assessment).
Stage 2 Assurance Report	has the meaning given to that expression in Part 4.6 of the SMKI Compliance Policy (Nature of the Initial Assessment).
Standalone Auxiliary Proportional Controller	means a device installed (or to be installed) at a premises, which: (a) consists of the components or other apparatus identified in; and (b) as a minimum, has the functional capability specified by and complies with the other requirements of, a Version of the SAPC Technical Specification which was within its Installation Validity Period on the date on which the device was installed.
Statement of Service Exemptions	means a statement of that name developed by the DCC in accordance with Condition 17 of the DCC Licence.
Sub-Committee	has the meaning given to that expression in Section C6 (Sub-Committees).
Sub GHz Alert	Has the meaning given to 'Sub GHz Alert' in the GB Companion Specification.
Sub GHz Available Channels	Has the meaning given to 'Sub GHz Available Channels' in the GB Companion Specification.
Subject	in relation to a Certificate, has the meaning given to that expression in the relevant Certificate Policy.
Sub-Processor	means, in respect of a Party which Processes Personal Data obtained pursuant to this Code as a Data Processor, any person which Processes such Personal Data on behalf of such Party.
Subscriber	means, in relation to any Certificate, SECCo, a Party or an RDP which has been Issued with and accepted that Certificate, acting in its capacity as the holder of the Certificate.
Subscriber Obligations	means the provisions in respect of Subscribers set out at Section L11 of the Code (the Subscriber Agreement Obligations).

Sub-Version	in relation to: (a) a Technical Specification, has the meaning given to that expression in Section A3.5(b) (Versions of the Technical Specifications); and (b) the GBCS or CPA Security Characteristics, has the equivalent meaning, in accordance with and subject to the provisions of Section A3.27 (GB Companion Specification and CPA Security Characteristics).
Successfully Executed	means: (a) in respect of a Command and a Device, that the action that a Command of the relevant type is designed to effect in respect of a Device of the relevant Device Type has been effected on the Device; (b) in respect of a Service Request and a Device, that the associated Command has been Successfully Executed on the Device as described in (a) above (or, in the case of Service Requests that are not designed to result in a Command, that the action that a Service Request of the relevant type is designed to effect has been effected); or (c) in respect of a SMETS1 Service Request and a Device, that the Equivalent Steps have been successfully carried out.
Successor Licensee	has the meaning given to that expression in Section M9.2 (Application and Interpretation of Section M9).
Supplementary Remote Party	has the meaning given to that expression in the GB Companion Specification.
Supplier Certificates	means, in respect of a Supplier Party, any Certificate or DCCKI Certificate for which the Supplier Party is a Subscriber or a DCCKI Subscriber.
Supplier of Last Resort	means, in respect of each premises supplied by a Failing Energy Supplier, the Supplier Party directed to supply gas and/or electricity to that premises by the Authority under a Last Resort Supply Direction (as defined in the Energy Supply Licences).
Supplier Party	means a Party that is an Electricity Supplier Party and/or a Gas Supplier Party.
Supply Meter Point	has the meaning given to that expression in the UNC.
Supply Meter Point Reference Number	has the meaning given to that expression in the UNC.
Supply of Energy	means either or both of the supply of gas pursuant to the Gas Act and the supply of electricity pursuant to the Electricity Act (in each case within the meaning that is given to the expression “supply” in the respective Act).

Supply Sensitive Check	means a check carried out by a User in relation to a Supply Sensitive Service Request in order to confirm the intention of the User that the associated Command(s) should be executed on the relevant Device, having regard to the reasonably foreseeable effect that the Command(s) could have on the quantity of gas or electricity that is supplied to a consumer at premises.
Supply Sensitive Service Request	means any Service Request in respect of which it is reasonably foreseeable that the associated Command(s), if it were to be executed on the relevant Device, could affect (either directly or indirectly) the quantity of gas or electricity that is supplied to a consumer at premises.
Suspended	means, in respect of a Device, that the Device has been suspended (or deemed suspended) in accordance with Section H6.10 (Suspension); and the word “ Suspension ” shall be interpreted accordingly.
Symmetric Key	means the Contingency Symmetric Key and any key derived from a Shared Secret in accordance with the GB Companion Specification.
System	means a system for generating, sending, receiving, storing (including for the purposes of Back-Up), manipulating or otherwise processing electronic communications, including all hardware, software, firmware and Data associated therewith.
System Development Lifecycle	means, in relation to any System, the whole of the life of that System from its initial concept to ultimate disposal, including the stages of development, design, build, testing, configuration, implementation, operation, maintenance, modification and decommissioning.
Tailored Assurance Service (CTAS)	means the scheme of that name which is administered by NCSC, or any successor to that scheme.
Target Availability Period	means, in relation to each DCC Interface (excluding the one listed in paragraph (f) of the definition of DCC Interface), a period of time in respect of each month, expressed in minutes and calculated as: (a) the total number of minutes in that month, minus (b) the number of minutes during which the DCC has, acting in compliance with Sections H8.2 and H8.3 (Maintenance of the DCC Systems), arranged for the given DCC Interface to be unavailable during that month for the purposes of Planned Maintenance.
Target Initial Response Time	means the time period within which an Incident within each Incident Category is to be recorded on the Incident Management Log and assigned to a resolver, as set out in the Incident Management Policy.

Target Resolution Time	has the meaning given to that expression in Section H9.1 (Incident Management Policy).
Target Response Time	has the meaning given to that expression in Section H3.14 (Target Response Times) or L8 (SMKI Performance Standards and Demand Management).
Target Service Level	means, in respect of each Performance Measure, the number or percentage intended to represent a reasonable level of performance for the activity which is the subject of the Performance Measure, as set out in: (a) Section D11.1 (Code Performance Measures); (b) Section H13.1 (Code Performance Measures); (c) the Reported List of Service Provider Performance Measures; or (d) Section L8.6 (Code Performance Measures).
TCH Participant	has the meaning given to that expression in Section F10.5 (Provision of Test Communications Hubs).
Technical Architecture and Business Architecture Sub-Committee	means the Sub-Committee established pursuant to Section F1 (Technical Architecture and Business Architecture Sub-Committee).
Technical Architecture Document	means a document setting out a representation of the End-to-End Technical Architecture.
Technical Code Specifications	means the Technical Specifications, the GB Companion Specification, the DCC Gateway Connection Code of Connection, the DCC User Interface Code of Connection, the DCC User Interface Specification, the Self-Service Interface Access Control Specification, the Self-Service Interface Code of Connection, the Registration Data Interface Documents, the Message Mapping Catalogue, the Incident Management Policy, the DCC Release Management Policy, the SEC Release Management Policy, the SMKI Interface Design Specification, the SMKI Code of Connection, the SMKI Repository Interface Design Specification, the SMKI Repository Code of Connection, and the SMETS1 Supporting Requirements.
Technical Specification	means each of the CHTS, the ESMETS, the GSMETS, the HCALCSTS, the IHDTS, the PPMIDTS and the SAPCTS.
Test Certificate	means a certificate that simulates the function of a Certificate for the purpose of testing pursuant to this Code.
Test Communications Hub	means: (a) until such date as the DCC may determine (or such earlier date as the Secretary of State may designate for the purposes of this definition), a

Prototype Communications Hub; and

(b) after such date, a device that is equivalent to a SMETS2+ Communications Hub but which contains such variations in functionality as the DCC reasonably considers appropriate to enable the device to be used for the purposes of testing, which device is provided (or to be provided) for the purpose of testing as described in Section F10 (Test Communications Hubs).

Test Repository

means a repository that simulates the function of the SMKI Repository for the purpose of testing pursuant to this Code.

Test Stubs

means Systems and actions which simulate the behaviour of Devices and User Systems.

Testing Issue

means, in respect of any tests:

(a) anything that is preventing the execution of the tests; or

(b) once commenced or executed, the test has an unexpected or unexplained outcome or response.

Testing Participant

means, in respect of each Testing Service, the persons (whether or not they are Parties) who are entitled to undertake such tests, as described in Section H14 (Testing Services).

Testing Service

has the meaning given to that expression in Section H14.1 (General Testing Requirements).

Threshold Anomaly Detection

means the DCC processes which:

- a. in respect of any User ID used by a User in one or more of its User Roles, detect whether the total number of communications (in general or of a particular type) sent, received or processed by the DCC in relation to that User ID exceeds the relevant Anomaly Detection Threshold;
- b. in respect of the DCC (including when acting as a DCO, the CoS Party or a SMETS1 Service Provider), detect whether:
 - i. the total number of communications of a particular type generated, sent, received or processed by the DCC in relation to all Users and the CoS Party exceeds the relevant Anomaly Detection Threshold; and
 - ii. a data value within a communication of a particular type sent, received or processed by the DCC in relation to a User exceeds or is less than the relevant Anomaly Detection Threshold; and
- c. (other than in the case of Threshold Anomaly Detection applied by a DCO) quarantine those communications that, in the case of paragraph (a) or (b)(i) above, are in excess of the relevant Anomaly Detection Threshold or, in the case of paragraph (b)(ii) above, contain a data value that exceeds or is less than the relevant Anomaly Detection Threshold.

Threshold Anomaly Detection Procedures	means the SEC Subsidiary Document of that name set out in Appendix AA, which has the purpose described in Section G6.1 (Threshold Anomaly Detection Procedures).
Transfer Date	has the meaning given in Section F6A.4 (Communications Hub Transfer Requests), subject to change in accordance with the CH Handover Support Materials.
Transfer Location	has the meaning given in Section F6A.4 (Communications Hub Transfer Requests).
Transform	means, in respect of a Service Request in relation to a Device, the conversion of that Service Request into one or more corresponding Commands (less any required Message Authentication Code or Digital Signatures), where such correspondence is identified in the DCC User Interface Specification in respect of particular types of Service Request and particular Device Types; and “ Transformed ” shall be interpreted accordingly.
Transition and Migration Approach Document	means the SEC Subsidiary Document set out in Appendix [TBC].
Transition Objective	has the meaning given to that expression in Section X1 (General Provisions Regarding Transition).
Transport Layer Security	means TLS 1.2 as defined in the Internet Engineering Task Force (IETF) Request for Change (RFC) 5246 or any equivalent to that document which updates or replaces it from time to time.
Trial Device Approval	has the meaning given to that expression in Section F2.18 (Device Trials).
Trial Device Certificate	has the meaning given to that expression in Section F2.25 (Device Trials).
Trial Device Model	has the meaning given to that expression in Section F2.18 (Device Trials).
Trial Device Remedial Plan	has the meaning given to that expression in Clause 6.3(b) of Appendix Z (CPL Requirements Document).
TS Applicability Tables	means the document set out in Schedule 11 which has the content described at Section A3.32 (The TS Applicability Tables).

Type 1 Device	means a HAN Connected Auxiliary Load Control Switch or a Pre-Payment Meter Interface Device.
Type 2 Device	has the meaning given to that expression in the Technical Specification in which the expression is used (or given to the expression 'Consumer Device' in SMETS1).
Type 2 Device (Other)	means a Type 2 Device that is not an IHD.
UKAS	means the United Kingdom Accreditation Service
Unambiguous Consent	means the explicit and informed consent of an Energy Consumer given to a User to undertake a specified action, and that consent shall not be treated as having been given explicitly unless the Energy Consumer has: (a) of his or her own volition, communicated to the User a request for it to undertake that action; or (b) in response to a specific request by the User for him or her to indicate consent to it undertaking that action, taken a positive step amounting to a clear communication of that consent.
UNC	means the Uniform Network Code established pursuant to the Gas Transporter Licences.
Unique Transaction Reference Number (UTRN)	has, where used in relation to a SMETS2+ Device, the meaning given to that expression in the GB Companion Specification; or, where used in relation to SMETS1 Device, has the meaning set out in SMETS1.
Unknown Remote Party	for SMETS2+ Devices, has the meaning given to that expression in the GB Companion Specification; and, for SMETS1 Devices, has the meaning set out in the SMETS1 Supporting Requirements.
Unplanned Maintenance	means, in respect of a month, Maintenance of the DCC Systems that was not planned prior to the start of that month and which disrupts, will disrupt, or poses a Material Risk of disruption to, provision of the Services (and, where it disrupts, will disrupt, or poses a Material Risk of disruption to, the provision of the Services in relation to Devices associated with Communications Hubs, at least 100,000 Communications Hubs are affected).
Unsecured Credit Factor Percentage	has the meaning given to that expression in Section J3.10 (Party's Unsecured Credit Factor Percentage).

Unsecured Credit Limit	has the meaning given to that expression in Section J3.7 (Party's Unsecured Credit Limit).
Upgrade Image	shall have the meaning given to that expression in the SMETS1 Supporting Requirements.
UPRN	means the unique property reference number (if any) recorded in respect of a premises so as to link the MPAN(s) and MPRN for that premises.
Urgent DCC Assessment	means a DCC Assessment in respect of an Urgent Modification Proposal.
Urgent Proposal	has the meaning given to that expression in Section D4.6 (Urgent Proposals).
User	means a Party that has completed the User Entry Process (and, in respect of Services available in accordance with this Code to Users acting only in one or more User Roles, a Party that has completed the User Entry Process for that User Role).
User Entry Process	means the process described in Section H1 (User Entry Process).
User Entry Process Tests	means the tests described in Section H14.13 (User Entry Process Tests).
User ID	means, in respect of a User and a User Role, one of the unique identification numbers accepted by the DCC in respect of that User and that User Role under Section H1.6 (User Roles and User IDs).
User Independent Security Assurance Service Provider	has the meaning given to that expression in Section G8.1 (Procurement of the Independent Security Assurance Service Provider).
User Personnel	means those persons who are engaged by a User, in so far as such persons carry out, or are authorised to carry out, any activity in relation to the business of the User in the exercise of rights and compliance with obligations under this Code.
User Privacy Self-Assessment	has the meaning given to that expression in Section I2.12 (Categories of Assessment).
User Privacy Self-Assessment Report	has the meaning given to that expression in Section I2.24 (The User Privacy Self-Assessment Report).

User Role	means, in respect of the Service set out in the DCC User Interface Services Schedule and Elective Communication Services, one of the categories of User that is capable of being an Eligible User in respect of those Services (determined without reference to a particular Smart Metering System), and which comprise the following categories (construed without reference to a particular Smart Metering System): Import Supplier, Export Supplier, Gas Supplier, Electricity Distributor, Gas Transporter, Registered Supplier Agent and Other User.
User Security Assessment	means either a Full User Security Assessment or a Verification User Security Assessment.
User Security Assessment Methodology	means a methodology to be applied (as the case may be): (a) by the User Independent Security Assurance Service Provider in carrying out any User Security Assessment; or (b) by a User, in carrying out any User Security Self-Assessment, in each case in accordance with the provisions of the Security Controls Framework applicable to the relevant category of security assurance assessment.
User Security Assessment Report	has the meaning given to that expression in Section G8.22 (User Security Assessments: General Procedure).
User Security Assessment Response	has the meaning given to that expression in Section G8.24 (User Security Assessments: General Procedure).
User Security Self-Assessment	has the meaning given to that expression in Section G8.18 (Categories of Security Assurance Assessment).
User Systems	means any Systems (excluding any Devices) which are operated by or on behalf of a User and used in whole or in part for: (a) constructing Service Requests; (b) sending Service Requests over the DCC User Interface; (c) receiving, sending, storing, using or otherwise carrying out any processing in respect of any Pre-Command or Signed Pre-Command; (d) receiving Service Responses or Alerts over the DCC User Interface; (e) generating Data for communication to the OCA, DCA, ICA or DCCKICA, or receiving Data from the OCA, DCA, ICA or DCCKICA (including any Systems which store or use Secret Key Material for such purposes) but excluding communications in relation to Devices that do not have an SMI Status of "commissioned" or "installed not commissioned"; and/or (f) generating any Unique Transaction Reference Number, and any other Systems from which the Systems used in whole or in part for the purposes set out in paragraphs (a) to (f) are not Separated.
UTC (Coordinated Universal Time)	means the prime standard by which clocks and time are regulated.

Valid Communications Hub Order	means the Consignment or Consignments which arise from a Communications Hub Order that has been accepted by the DCC under Section F5.16 or F5.17 (DCC: Duties in relation to Communications Hub Orders), and which have not been cancelled by the ordering Party in accordance with Section F5.19 (Non-Standard Cancellation of Consignments).
Validity Period	has the meaning given to that expression in any of the Certificate Policies or the DCCKI Certificate Policy.
Value at Risk	has the meaning given to that expression in Section J3.6 (Party's Value at Risk).
VAT	means VAT, as defined in the Value Added Tax Act 1994, and any tax of a similar nature which may be substituted for or levied in addition to it.
Verification User Security Assessment	has the meaning given to that expression in Section G8.17 (Categories of Security Assurance Assessment).
Verify	means, in respect of a Service Request or Signed Pre-Command, to confirm that it meets all the applicable requirements of the DCC User Interface Specification.
Version	in relation to: a. a Technical Specification, has the meaning given to that expression in Section A3.2 (Versions of the Technical Specifications); b. the GBCS or CPA Security Characteristics, has the meaning given to that expression in Section A3.26 (GB Companion Specification and CPA Security Characteristics); and c. the DCC User Interface Specification, has the meaning given to that expression in Section A3.36 (DCC User Interface Specification and Message Mapping Catalogue), and in the case of Technical Specifications, the GBCS or CPA Security Characteristics includes both the Principal Version and Sub-Version of that document. The concepts of Principal Version and Sub-Version do not apply to the DCC User Interface Specification.
Volume Scenarios	means the capacity levels to which the DCC Systems will be tested.
Voting Group	means, in respect of each Party Category, each Party that falls into that Party Category collectively with that Party's Affiliates (if any) who also fall into that Party Category.

WAN Variants	means the variations of SMETS2+ Communications Hub that are necessary to enable communications via the SMETS2+ SM WAN in each Region (and each part thereof that is not subject to the Statement of Service Exemptions).
Website	means a dedicated website established at the direction of the Panel for the purposes of this Code.
Wide Area Network (WAN) Provider	means the DCC, acting in the capacity and exercising the functions of the Known Remote Party role identified as such in the GB Companion Specification.
Wired Instrumented Test Communications Hubs (Wired ITCH)	means the Testing Service described in Section H14.54 (Wired Instrumented Test Communications Hubs).
Working Day	means any day other than a Saturday, a Sunday, Christmas Day, Good Friday, or a day that is a bank holiday within the meaning of the Banking and Financial Dealings Act 1971.
Working Group	has the meaning given to that expression in Section D6.2 (Establishment of a Working Group).
Working Group Terms of Reference	has the meaning given to that term in Section D6.2 (Establishment of a Working Group).
XML User Role Signing Private Key	means a Private Key associated with a Public Key that is contained within an Organisation Certificate with a Remote Party Role of "xmlSign".
Zigbee Alliance	means the association of that name administered by ZigBee Alliance Inc (2400 Camino Ramon, Suite 375, San Ramon, CA 94583, USA) (see - www.zigbee.org).

A2. INTERPRETATION

A2.1 In this Code, unless the context otherwise requires, any reference to:

- (a) a "person" includes a reference to an individual, a body corporate, an association, a partnership or a Competent Authority;
- (b) the singular includes the plural, and vice versa;
- (c) a gender includes every gender;
- (d) a Section or Schedule is a reference (respectively) to the section of, or schedule to, this Code which bears the relevant letter, number or letter and number;

- (e) a numbered Paragraph or a numbered Clause is a reference to the paragraph or clause of the Schedule or Appendix in which such reference occurs;
- (f) a numbered Condition (with or without a letter) is a reference to the licence condition bearing that number (and, where relevant, letter) in the Energy Licence indicated (and, save in the case of the DCC Licence, is a reference to the standard licence conditions of that Energy Licence);
- (g) writing (or similar) includes all methods of reproducing words in a legible and non-transitory form (including email);
- (h) a day, week or month is a reference (respectively) to a calendar day, a week starting on a Monday, or a calendar month;
- (i) a time is a reference to that time in the UK;
- (j) any statute or statutory provision includes any subordinate legislation made under it, any provision which it has modified or re-enacted, and any provision which subsequently supersedes or re-enacts it (with or without modification);
- (k) an agreement, code, licence or other document is to such agreement, code, licence or other document as amended, supplemented, novated or replaced from time to time;
- (l) a Party shall include reference to that Party's respective successors, (in the case of the DCC) to the person to whom the DCC may novate its rights and obligations pursuant to Section M9 (Transfer of DCC Licence), and (as the context permits) reference to the respective persons to whom that Party may sub-contract or otherwise delegate its rights and/or obligations under this Code in accordance with Section M11.8 and M11.9 (which shall include, in the case of the DCC, reference to the DCC Service Providers);
- (m) any premises of a Party shall include references to any premises owned or occupied by that Party and (as the context permits) by the respective persons to whom that Party may sub-contract or otherwise delegate its rights and/or obligations under this Code in accordance with Section M11.8 and M11.9 (which shall include, in the case of the DCC, reference to the DCC Service Providers);
- (n) a Competent Authority or other public organisation includes a reference to its successors, or to any organisation to which some or all of its functions and responsibilities have been transferred; and
- (o) an expression that is stated to have the meaning given to it in an Energy Licence (other than the DCC Licence) is a reference to that expression as defined in the standard licence conditions for the Energy Licence indicated.

A2.2 The headings in this Code are for ease of reference only and shall not affect its interpretation.

A2.3 In this Code, the words preceding "include", "including" or "in particular" are to be construed without limitation to the generality of the words following those expressions.

A2.4 The language of this Code is English. All notices and other communications sent between any of the Parties, the Panel, SECCo, the Code Administrator and the Secretariat shall be in English.

A2.5 Except where expressly stated to the contrary, in the event of any conflict between the provisions of this Code, the following order of precedence shall apply:

- (a) the Sections, as among which Section X (Transition) shall take precedence; then
- (b) the Schedules; then
- (c) the SEC Subsidiary Documents.

- A2.6 Section A2.7 shall apply, during the period prior to Completion of Implementation, where initial capital letters are used for any expression in this Code that either is not defined in this Code or the definition of which cannot be given effect by reference to the provisions of this Code.
- A2.7 Any expression of the type referred to in Section A2.6 shall be interpreted as having the meaning given to that expression in the decision or consultation document concerning the intended future definition of such expression most recently published by the Secretary of State prior to the date on which this Section A2.7 comes into force.
- A2.8 Where no time period is specified for performance of any obligation under this Code, the obligation shall be performed as soon as reasonably practicable.
- A2.9 Where any expression is defined both in Section A1 (Definitions) and in any Schedule or Appendix:
- (a) the definition in the Schedule or Appendix shall take precedence for the purposes of that Schedule or Appendix (including for the purposes of any Technical Specification included within any such Schedule); and
 - (b) the definition in Section A1 shall take precedence for all other purposes
- A2.10 For the purposes of Section A2.9, where the meaning of an expression is explained in any glossary (or equivalent section) of a Schedule which includes a Technical Specification, it shall be treated as an expression that is defined in each Technical Specification that is included within that Schedule.
- A2.11 Where any Data is:
- (a) embedded as a file within the electronic copy of any Technical Specification, the GBCS, the DCC User Interface Services Schedule or the Message Mapping Catalogue; and/or
 - (b) represented within the tangible copy of that document as being so embedded,
- A2.12 In this Code, each reference to the term or expression:
- (a) 'Smart Metering Equipment Technical Specifications';
 - (b) 'SMETS',
- shall be read, as the context requires, as a reference to the ESMETS, the GSMETS, the IHDTS, the HCALCSTS, the PPMIDTS, or the SAPCTS (or to any two or more (or all) of them).

A3. TECHNICAL SPECIFICATIONS, THE GB COMPANION SPECIFICATION, THE CPA SECURITY CHARACTERISTICS, AND THE DCC USER INTERFACE SPECIFICATION

Introduction

- A3.1 This Section A3 makes provision in relation to:
- (a) the maintenance in this Code of different versions of each of the Technical Specifications;
 - (b) the relationship between each version of a Technical Specification and:
 - (i) the GB Companion Specification; and
 - (ii) the CPA Security Characteristics; and
 - (c) the interpretation of the Code in respect of the Technical Specifications, GB Companion Specification, CPA Security Characteristics, the DCC User Interface Specification, and the Message Mapping Catalogue.

Versions of the Technical Specifications

A3.2 Each Technical Specification may exist in more than one version (a “**Version**”).

A3.3 Each Version of a Technical Specification shall consist of two elements:

- (a) a Principal Version; and
- (b) a Sub-Version of that Principal Version.

A3.4 Each Version of a Technical Specification shall be identified by a numerical reference in a form equivalent to 'ESMETS v 1.2', where:

- (a) the number before the decimal point identifies the Principal Version; and
- (b) the number after the decimal point identifies the Sub-Version.

A3.5 In respect of any Technical Specification:

- (a) the expression “**Principal Version**” shall be interpreted in accordance with Sections A3.6 to A3.7; and
- (b) the expression “**Sub-Version**” shall be interpreted in accordance with Sections A3.8 to A3.9.

The Principal Version

A3.6 Where a Technical Specification is amended in a manner that is entirely prospective, that amendment shall be made by creating a new Principal Version, and:

- (a) for this purpose a prospective amendment means one that does not require any change to be made to any Device or apparatus which is already installed;
- (b) in consequence a new Principal Version shall be taken to indicate amendments which have no retrospective effect.

A3.7 The first Principal Version of:

- (a) each of the ESMETS, the GSMETS, the IHDTS and the CHTS shall be allocated the number 1, and subsequent Principal Versions of each such Technical Specification shall be allocated sequential numbers;
- (b) each of the PPMIDTS, the HCALCSTS and the SAPCTS shall be allocated the number 2, and subsequent Principal Versions of each such Technical Specification shall be allocated sequential numbers.

The Sub-Version

A3.8 Where any Principal Version of a Technical Specification is amended in a manner that is intended to have retrospective effect, that amendment shall be made by creating a new Sub-Version, and for these purposes:

- (a) a Sub-Version means a new form of the Principal Version to which it relates;
- (b) an amendment with retrospective effect means one that requires a change to be made to Devices or apparatus which are already installed.

A3.9 The initial form of a Principal Version of a Technical Specification shall be allocated the Sub-Version number of zero, and subsequent Sub-Versions shall be allocated sequential numbers, beginning with 1, in the chronological order in which they are created.

The Installation Validity Period

A3.10 Any Version of a Technical Specification may be assigned an Installation Validity Period.

A3.11 An “**Installation Validity Period**” means the period of time during which any Device or apparatus satisfying the requirements of that Version of the Technical Specification may be installed or provided.

A3.12 An Installation Validity Period shall:

- (a) commence on the “**Installation Start Date**” that is identified in relation to that Version of the Technical Specification in the TS Applicability Tables; and
- (b) end on any “**Installation End Date**” determined in accordance with Sections A3.13 to A3.16.

The Installation End Date

A3.13 In the case of each Version of the ESMETS, the GSMETS and the IHDTs with a Principal Version number of 1, the Installation End Date shall, except where Section A3.14 or Section A3.15 applies, be the date which is identified in relation to that Version in the TS Applicability Tables as the “**General Installation End Date**”.

A3.14 This section applies on the installation or provision by or on behalf of a Supplier Party of any Replacement Meter and ancillary Device or apparatus where:

- (a) the Energy Meter that is being replaced is not part of a Smart Metering System; and
- (b) the Replacement Meter is, in accordance with the terms of a contract between the Supplier Party and the Energy Consumer at the premises at which it is installed, to be operated as a Pre-Payment Meter for at least an initial period from the date of its installation,

in which case the Installation End Date in respect of any Version of the ESMETS, the GSMETS and the IHDTs with a Principal Version number of 1 shall be the date which is identified in relation to that Version in the TS Applicability Tables as the “**PPM Installation End Date**”.

A3.15 This Section applies where a Derogation is granted to a Supplier Party in accordance with Section A4 (Derogation from General Installation End Date) and has not been revoked, in which case:

- (a) for the purposes of the installation or provision by or on behalf of that Supplier Party of any Device or apparatus; and
- (b) in so far as any conditions of that Derogation are satisfied,

the Installation End Date shall be the Alternative Installation End Date specified in the Derogation.

A3.16 In the case of each Version of a Technical Specification, other than the ESMETS, the GSMETS and the IHDTs with a Principal Version number of 1, the Installation End Date shall be the date that may be identified in relation to that Version of the Technical Specification in the TS Applicability Tables.

A3.17 The Installation End Date of any Version of a Technical Specification may be later than the Installation Start Date of a Version that succeeds it, so that:

- (a) two or more Versions may be within their Installation Validity Periods at the same time; and
- (b) any Device or apparatus to which each such Version relates may be installed or provided in accordance with any such Version that is within its Installation Validity Period at that time.

The Maintenance Validity Period

A3.18 Each Version of a Technical Specification shall be assigned a Maintenance Validity Period.

A3.19 A **“Maintenance Validity Period”** means:

- (a) the period of time during which a Device or other apparatus may be maintained in accordance with the requirements of that Version of the Technical Specification; and
- (b) the period of time during which User can interface to the DCC in accordance with that Version of the DCC User Interface Specification.

A3.20 A Maintenance Validity Period shall:

- (a) commence on the **“Maintenance Start Date”** that is identified in relation to that Version of the Technical Specification or the DCC User Interface Specification in the TS Applicability Tables; and
- (b) end on any **“Maintenance End Date”** that may be identified in relation to that Version of the Technical Specification or the DCC User Interface Specification in the TS Applicability Tables.

A3.21 The Maintenance End Date of any Version of a Technical Specification may be later than the Maintenance Start Date of a Version that succeeds it, so that:

- (a) two or more Versions may be within their Maintenance Validity Periods at the same time; and
- (b) any Device or apparatus to which each such Version relates may be maintained in accordance with any such Version that is within its Maintenance Validity Period at that time.

Versions in the Code

A3.22 Each Version of a Technical Specification or DCC User Interface Specification shall be retained in the relevant Schedule to the Code at all times during which it remains within its Installation Validity Period (if any) and/or its Maintenance Validity Period.

A3.23 Where, in respect of any Version of a Technical Specification or DCC User Interface Specification:

- (a) no Installation Validity Period has been assigned, or any Installation Validity Period that was assigned has expired; and
- (b) the Maintenance Validity Period has expired,

that Version shall be deemed automatically to be deleted from the Code on the day immediately following whichever is the later of its Installation End Date (if any) or Maintenance End Date, and the part of the Schedule or the part of the composite document in the Schedule (as the case may be) in which it is set out shall then automatically be marked ‘Not Used’.

A3.24 The Code Administrator shall at all times maintain on the Website copies of those Versions of each Technical Specification, DCC User Interface Specification and Message Mapping Catalogue which have been deleted from the Code in accordance with Section A3.23, together with a record of the Installation Start and End Dates (if any) and the Maintenance Start and End Dates relating to each such Version.

GB Companion Specification and CPA Security Characteristics

A3.25 The GB Companion Specification and the CPA Security Characteristics may each exist in more than one version (a **“Version”**).

A3.26 The provisions of Sections A3.3 to A3.9 shall apply to the GBCS and CPA Security Characteristics:

- (a) as if references in those Sections to a Technical Specification were references to each of those documents; and
- (b) in respect of the CPA Security Characteristics, so that:

- (i) any reference in those Sections to the creation of a new Version by an amendment that requires a change to be made to a Device or apparatus which is already installed shall be read as if it were a reference to an amendment requiring the Device Model of a Device or apparatus which is already installed to be certified, on the expiry of its CPA Certificate, against the new Version of the CPA Security Characteristics; and
- (ii) Section A3.38 shall be interpreted accordingly.

A3.27 The provisions of Sections A3.22 to A3.24 shall apply to the GBCS as if references in those Sections:

- (a) to a Technical Specification were references to the GBCS;
- (b) to an Installation Validity Period or Maintenance Validity Period were to an Applicability Period; and
- (c) to an Installation Start or End Date, or a Maintenance Start or End Date, were to the first and last dates of the Applicability Period.

A3.28 Each Technical Specification requires that the Device or other apparatus to which it relates must be compatible with a relevant Version of the GBCS.

A3.29 For these purposes:

- (a) the relevant Version of the GBCS in relation to any Version of a Technical Specification shall be deemed to be that which is specified in relation to it in the TS Applicability Tables;
- (b) more than one Version of the GBCS may be relevant to a Version of a Technical Specification at the same time;
- (c) a Version of the GBCS may be relevant to more than one Version of a Technical Specification at the same time;
- (d) a Version of the GBCS shall be relevant to a Version of a Technical Specification only during such period of time (in each case, an “**Applicability Period**”) as may be specified in the TS Applicability Tables.

A3.30 Each Version of the GBCS requires that the Device or other apparatus must be certified as compliant with a relevant Version of the CPA Security Characteristics.

A3.31 For these purposes:

- (a) the relevant Version of the CPA Security Characteristics in relation to any Version of the GBCS shall be deemed to be that which is specified in relation to it in the TS Applicability Tables;
- (b) more than one Version of the CPA Security Characteristics may be relevant to a Version of the GBCS at the same time;
- (c) a Version of the CPA Security Characteristics may be relevant to more than one Version of the GBCS at the same time.

The TS Applicability Tables

A3.32 There shall be a document to be known as the “**TS Applicability Tables**”, which shall be set out at Schedule 11 to the Code following its initial designation in accordance with Section X5 (Incorporation of Certain Documents into this Code) by the Secretary of State in reliance on Section X5.4 (Other Technical Specifications), and shall:

- (a) in relation to each Technical Specification, list each of the Versions of that Technical Specification that have been produced;

- (b) in relation to each such Version of that Technical Specification, identify:
 - (i) any Installation Start Date that has been assigned to it;
 - (ii) in the case of each Version of the ESMETS, the GSMETS and the IHDTs with a Principal Version number of 1, the General Installation End Date that has been assigned to it;
 - (iii) in the case of each Version of a Technical Specification other than one identified in paragraph (ii), any Installation End Date that has been assigned to it (or a statement that no such date has yet been determined);
 - (iv) the Maintenance Start Date;
 - (v) the Maintenance End Date (or a statement that no such date has yet been determined);
 - (vi) the relevant Version(s) of the GBCS;
 - (vii) any Applicability Period relating to any such relevant Version of the GBCS;
- (c) in relation to each Version of the GBCS, identify the relevant Version(s) of the CPA Security Characteristics;
- (d) set out which version of each Technical Specification is contained within each of the documents contained within Schedule 9 of the Code; and
- (e) In relation to each Version of the DUIS, identify:
 - (i) the date from which that Version becomes applicable; and
 - (ii) the date after which that Version ceases to be applicable (or a statement that no such date has yet been determined).

A3.33 The TS Applicability Tables shall be amended to ensure that it remains accurate and up-to-date:

- (a) on the designation or re-designation of a Technical Specification or the GBCS in accordance with Section X5 (Incorporation of Certain Documents into this Code), by the Secretary of State in reliance on Section X5.6 (Supplementary Provisions); and
- (b) as part of any modification of the Code which creates a new Version of any Technical Specification or of the GBCS in accordance with Section D (Modification Process).

A3.34 Where the TS Applicability Tables is amended (including by the means described in Section A3.33) the amendment may have retrospective effect, which is to say that any date specified in the TS Applicability Tables by virtue of that amendment may be a date which falls before the date on which the amendment was made.

A3.35 The information set out in the TS Applicability Tables shall be regarded as conclusive for all purposes of any question as to the:

- (a) Installation Validity Period of any Version of a Technical Specification other than in any case where both:
 - (i) it is a Version of the ESMETS, the GSMETS and the IHDTs with a Principal Version number of 1; and
 - (ii) a Derogation has been granted to any Supplier Party in accordance with Section A4 (Derogation from General Installation End Date), and has not been revoked, specifying an Alternative Installation End Date in respect of that Version of the ESMETS, the GSMETS and the IHDTs;

- (b) Maintenance Validity Period of any Version of a Technical Specification;
- (c) relevant Version(s) of the GBCS in relation to any Version of a Technical Specification;
- (d) Applicability Period of any Version of the GBCS;
- (e) relevant Version(s) of the CPA Security Characteristics in relation to any version of the GBCS; and
- (f) relevant Version or Versions of the DUIS which can be used at a given time by the DCC and Users.

DCC User Interface Specification and Message Mapping Catalogue

A3.36 The DCC User Interface Specification may exist in more than one version (a “**Version**”). Each such Version shall be subject to a “**Maintenance Validity Period**” which:

- (a) commences on the start date that is identified in relation to that Version of the DCC User Interface Specification in the TS Applicability Tables; and
- (b) ends on the Maintenance End date (if any) that may be identified in relation to that Version of the DCC User Interface Specification in the TS Applicability Tables.

A3.37 Where there is more than one Version of the DCC User Interface Specification:

- (a) each such Version shall contain a different Version of the DUIS XML Schema (but a Version of the DCC User Interface Specification may be modified, and its version number updated, without any corresponding change to the DUIS XML Schema);
- (b) there shall be, in respect of each such Version, one or more corresponding versions of the Message Mapping Catalogue;
- (c) a User may submit any Service Request, in respect of which it is an Eligible User, in accordance with any Version of the DCC User Interface Specification which is (at the relevant time) within its Maintenance Validity Period;
- (d) in accordance with the requirements of each version of the DCC User Interface Specification, each such Service Request must identify the Version of the DUIS XML Schema in accordance with which it has been submitted;
- (e) any obligation on the DCC or any User in relation to any Service Request or associated communication shall be interpreted by reference to the provisions of the Version of the DCC User Interface Specification that contains the DUIS XML Schema that is identified in that Service Request;
- (f) the obligation on the DCC at Section H11.1 (Parse and Correlate Software) to provide Parse and Correlate Software shall be interpreted as an obligation to provide a separate version of the Parse and Correlate Software in respect of each version of the DCC User Interface Specification (and each corresponding version of the Message Mapping Catalogue); and
- (g) any other obligation on the DCC under this Code in relation to the Parse and Correlate Software shall be read as an obligation applying separately in respect of each such version of that software.

A3.37A Each Version of the DCC User Interface Specification shall be retained in the relevant Schedule to the Code at all times during which it remains within its Maintenance Validity Period. Where the Maintenance Validity Period of a Version of the DCC User Interface Specification has expired, then that Version (and any version of the Message Mapping Catalogue that corresponds only to that Version of DUIS as indicated by the Parse and Correlate Applicability Matrix) shall be deemed automatically to be deleted from the Code on the day immediately following the end of that DCC User Interface Specification’s Maintenance Validity Period, and the part of the Schedules in which they are set out shall then automatically be marked ‘Not Used’. The Code Administrator shall at all times maintain on the Website copies of those Versions of the DCC User Interface

Specification and Message Mapping Catalogue which have been deleted from the Code in accordance with this Section A3.37A, together with a record of the Maintenance Validity Period relating to each such DCC User Interface Specification Version.

The Parse and Correlate Applicability Matrix

A3.38 There shall be a document to be known as the “**Parse and Correlate Applicability Matrix**”, which shall include:

- (a) a list of each of the versions of the Parse and Correlate Software that have been released; and
- (b) in relation to each such version of the Parse and Correlate Software:
 - (i) its version number;
 - (ii) the version(s) of the DCC User Interface Specification to which that version of the Parse and Correlate Software relates, and the version of the DUIS XML Schema which that version of the DCC User Interface Specification contains;
 - (iii) the version(s) of the Message Mapping Catalogue to which that version of the Parse and Correlate Software relates;
 - (iv) the version(s) of the GBCS to which that version of the Parse and Correlate Software relates.

A3.39 The Code Administrator shall:

- (a) maintain the Parse and Correlate Applicability Matrix to ensure that it remains accurate and up-to-date;
- (b) ensure that the latest version of the Parse and Correlate Applicability Matrix is published and available on the Website.

A3.40 The DCC shall ensure that the Code Administrator is provided with such information as it requires for the purpose of complying with Section A3.39.

Interpretation

A3.41 References in this Section A3 to amendments of a Technical Specification which do (or do not) require changes to be made to any Device or apparatus which is already installed shall be interpreted as references to the effect of those amendments on the duties of:

- (a) Electricity and Gas Supplier Parties in accordance with the standard conditions of the Energy Supply Licences; and
- (b) the DCC in accordance with the conditions of the DCC Licence.

A3.42 Where:

- (a) any provision of this Code relates to a Device or any communication to or from a Device; and
- (b) the application of that provision requires that reference is made to a Version of a Technical Specification,

the Version of that Technical Specification which shall be treated as applicable for that purpose shall be the one identified as pertaining to the Device Model of that Device in the Central Products List.

A3.43 The references in this Code to 'Technical Specifications' shall be deemed not to include reference to Versions of the ESMETS, the GSMETS and the IHDTS with a Principal Version number of 1, except in the following provisions:

- (a) the definitions of 'Principal Version', 'Sub-Version' and 'Version' in Section A1 (Definitions);
- (b) Sections A2 (Interpretation), A3 (Technical Specifications, the GB Companion Specification and the CPA Security Characteristics); and A4 (Derogation from SMETS1 Generation Installation End Date); and
- (c) Section N (SMETS1 Meters).

A4. DEROGATION FROM GENERAL INSTALLATION END DATE

Introduction

A4.1 This Section A4 makes provision for the Secretary of State to grant to any Supplier Party, on the application of that Party, a derogation from the General Installation End Date applicable to any Version of the ESMETS, the GSMETS and the IHDTs with a Principal Version number of 1.

Part A. Derogations

A4.2 For the purposes of this Section A4, a “Derogation” means a direction issued by the Secretary of State:

- (a) to the Supplier Party which applied for it;
- (b) in respect of a Version of the ESMETS, the GSMETS and the IHDTs with a Principal Version number of 1;
- (c) specifying a date subsequent to the General Installation End Date in respect of that Version of the ESMETS, the GSMETS and the IHDTs (the “**Alternative Installation End Date**”), which will constitute the Installation End Date, in those cases which the PPM Installation End Date does not apply, for the purposes of the installation or provision of Devices or apparatus by or on behalf of the Supplier Party in accordance with any conditions of the Derogation;
- (d) specifying any such conditions to which the Derogation is subject.

Part B. Power to Grant a Derogation

A4.3 The Secretary of State may grant a Derogation to any Supplier Party where:

- (a) that Supplier Party has applied for a Derogation in accordance with Part D;
- (b) that application complies with any requirements as to form or content set out in a statement issued in accordance with Part E;
- (c) in the opinion of the Secretary of State, that application satisfies any criteria set out in a statement issued in accordance with Part E; and
- (d) the Supplier Party has complied with all such other requirements as may apply to it in accordance with Part E.

Part C. Conditions of a Derogation

A4.4 A Derogation may be subject to such conditions (if any) as the Secretary of State thinks reasonable in all the circumstances of the case.

A4.5 The conditions to which a Derogation is subject may in particular include conditions which, in respect of the period that begins immediately after the General Installation End Date and ends on the Alternative Installation End Date of the Version of the ESMETS, the GSMETS and the IHDTs to which the Derogation relates:

- (a) place a limit on the quantity of Devices or apparatus which may be installed or provided by or on behalf of the Supplier Party to which the Derogation is granted;
- (b) restrict the type of Devices or apparatus that may be installed or provided by or on behalf of that Supplier Party;
- (c) make provision as to the circumstances in, or premises at, which such Devices or apparatus may be installed or provided by or on behalf of that Supplier Party;
- (d) place requirements on that Supplier Party to take, or refrain from taking, any specified action in relation to the installation or provision of any Devices or apparatus.

Part D. Applications for a Derogation

A4.6 Any Supplier Party may apply to the Secretary of State for a Derogation.

A4.7 The Secretary of State may determine, and in that case shall give all Supplier Parties a notice of, a date by which any application for a Derogation must be received by him.

A4.8 A Supplier Party may not apply for a Derogation after any date that is determined and included in a notice given in accordance with Section A4.7.

Part E. Statement of Requirements

A4.9 The Secretary of State may determine, and publish a statement of:

- (a) the criteria against which any application for a Derogation is to be assessed by him;
- (b) any requirements as to the form and content of any such application;
- (c) any information or evidence which must be provided by a Supplier Party on making such an application;
- (d) any timetable which applies to steps to be taken by the Supplier Party or by the Secretary of State in respect of such an application;
- (e) such other matters which relate to the making of any such application or to the process for assessing it as the Secretary of State may consider appropriate;
- (f) such matters which relate to the decision whether to grant a Derogation on the receipt of an application, or to the conditions to be applied to that Derogation, as the Secretary of State may consider appropriate.

A4.10 A Supplier Party which applies for a Derogation shall:

- (a) comply with any requirements applicable to it which are set out in a statement published in accordance with Section A4.9; and
- (b) provide to the Secretary of State, by such time and in such form as he may reasonably specify in a notice given to that Supplier Party, such additional information or evidence as he may at any time reasonably require for the purpose of assessing the application.

Part F. Actions before this Section Comes into Force

A4.11 Where, prior to the coming into effect of this Section A4:

- (a) a Supplier Party makes any application:

- (i) that it would be entitled to make under this Section A4 after it has come into force; and
 - (ii) in respect of that application, has complied with the requirements of this Section A4 as if they had already come into force;
- (b) the secretary of state takes any action that he would be entitled to take under this section A4 after it has come into force,

each of those sections shall be treated as actions taken and having effect under this Section A4 after it comes into force.

Part G. Amendments after this Section Comes into Force

A4.12 Where the Secretary of State has determined, and given all Supplier Parties notice of, a date in accordance with Section A4.7, he may subsequently (whether before or after that date has passed) determine and give all Supplier Parties notice of a later date.

A4.13 Any date determined and included in a notice given in accordance with Section A4.12 shall have effect for the purposes of Section A4.7 in replacement for the date that was previously determined by the Secretary of State.

A4.14 The Secretary of State may at any time:

- (a) amend any statement published in accordance with Section A4.9, in which case the amended statement shall have effect for the purposes of Section A4.10 in replacement for the one that was previously published;
- (b) in respect of the Derogation granted to any Supplier Party, vary:
 - (i) the Alternative Installation End Date, by specifying a date later than that previously specified;
 - (ii) any conditions to which the Derogation is subject, by imposing new or amended conditions.

A4.15 The Secretary of State may exercise the powers set out at Sections A4.12 and A4.14 on more than one occasion.

Part H. Revocation of Derogations

A4.16 The Secretary of State may at any time, by notice to the Supplier Party to which it was granted, revoke any Derogation granted by him in accordance with this Section A4.

Part I. Effect of a Derogation

A4.17 Where a Derogation is granted to a Supplier Party in accordance with this Section A4 and has not been revoked, then:

- (a) for the purposes of the installation or provision by or on behalf of that Supplier Party of any Device or apparatus; and
- (b) in so far as any conditions of that Derogation are satisfied, the Alternative Installation End Date specified in the Derogation shall have effect in accordance with Section A3.15 (The Installation End Date).

Part J. Publication of Derogations

A4.18 Where the Code Administrator is provided by the Secretary of State with a copy of a Derogation that has been granted by him to a Supplier Party, it shall:

- (a) maintain a copy of that Derogation on the Website;
- (b) if it is notified by the Secretary of State that the Derogation has been amended and provided by him with a copy of the amended Derogation, publish and maintain a copy of that amended Derogation on the Website;
- (c) if it is notified by the Secretary of State that the Derogation has been revoked, publish on the Website, together with that Derogation, a statement of the fact that it has been revoked and the date of its revocation.

A4.19 For the purposes of Section A4.18, any reference to a copy of a Derogation provided to the Code Administrator by the Secretary of State shall, where that copy has been redacted by the Secretary of State to exclude any commercially sensitive information, be treated as a reference to the copy of that Derogation in its redacted form.

This document is classified as **Clear** in accordance with the Panel Information Policy. Recipients can distribute this information to the world, there is no limit on disclosure. Information may be shared without restriction subject to copyright.

MP242 ‘Change to Operational Metrics to Measure on Success’

Annex B

Legal text – version 0.1

About this document

This document contains the redlined changes to the SEC that would be required to deliver this Modification Proposal.

Section H ‘DCC Services’

These changes have been redlined against Section H version 20.0.

Amend Section H13 as follows:

H13. PERFORMANCE STANDARDS AND REPORTING

Code Performance Measures

H13.1 Each of the following performance measures constitute a Code Performance Measure (to which the following Target Service Level and Minimum Service Level will apply, measured over the following Performance Measurement Period):

No.	Code Performance Measure	Performance Measurement Period	Target Service Level	Minimum Service Level
1	Percentage of On-Demand Service Responses delivered within the applicable Target Response Time.	monthly	99%	96%
2	Percentage of Future-Dated Service Responses delivered within the applicable Target Response Time.	monthly	99%	96%

3	Percentage of Alerts delivered within the applicable Target Response Time (including the Alerts which are subject to Sections H3.14(i) and (j). Alerts consolidated in accordance with the Alert Management Mechanism will not be counted.	monthly	99%	96%
3A	For those Alerts which are subject to Section H3.14(i), percentage of Alerts delivered within the applicable Target Response Time.	monthly	As set out in the Power Outage & Restoration Alerts Delivery Management Document	As set out in the Power Outage & Restoration Alerts Delivery Management Document
4	Percentage of Incidents which the DCC is responsible for resolving and which fall within Incident Category 1 or 2 that are resolved in accordance with the Incident Management Policy within the Target Resolution Time.	monthly	100%	85%
5	Percentage of Incidents, measured and reported as a separate Code Performance Measure for each of Incident Categories 3, 4 and 5, which the DCC is responsible for resolving that are resolved in accordance with the Incident Management Policy within the Target Resolution Time.	monthly	90%	80%
5A	Percentage of Incidents which fall within Incident Category 3, 4 or 5 that are recorded on the Incident Management Log and assigned to a resolver within the Target Initial Response Time.	monthly	90%	80%
6	Percentage of time (in minutes) during which each DCC Interface (excluding the one listed in paragraph (f) of the definition of DCC Interface) is available during the Target Availability Period. There shall be a separate Code Performance Measure for each combination of DCC Interface, Region and the two relevant times of day (the first such relevant time of day being Monday-Friday 08.00-20.00 and Saturday 08.00-12.00; the second being every other time). For this purpose, a DCC Interface is only considered to be available where it and the DCC Systems on which it relies are fully available, such that those persons which are intended to be able to use the DCC Interface can use the full functionality which is intended to be available to them.	monthly	99.5%	98%
6A	Percentage of each of the Business Processes described in Section H13.1A which is delivered within the applicable Target Response Time. There shall be a separate Code Performance Measure for each combination of Business Processes and either Region (for SMETS2+) or SMETS1.	monthly	99%	96%

~~H13.1A—The Business Processes referred to in Code Performance Measure 6A above are a combination of Service Reference Variants as set out in the table below. The percentage of each~~

Business Process which is delivered within the Target Response Time shall be measured and calculated by reference to whether the messages that together comprise that Business Process were sent and received within the required Target Response Time. For this purpose, a Service Response will not be considered to have been received if the Service Response contains an error Response Code relating to a communications failure or timeout (E20 or E21).

Business Process	Service Reference Variant	Description	SMETS1 applicable
Install and Commission	8.11	Update HAN Device Log	Yes
	6.21	Request Handover of DCC Controlled Device (Update Supplier Certificates)	No
	8.1.1	Commission Device	Yes
	8.7.2	Join Service (Join GPF with GSME)	Yes
	6.20.1	Set Device Configuration (Import MPxN)	No
	1.1.1	Update Import Tariff (Primary Element)	Yes
	6.8	Update Device Configuration (Billing Calendar)	Yes
	8.14.1	Communications Hub Status Update Install Success	No
Change of Supplier (Gain)	6.23	Update Security Credentials (CoS)	Yes
	1.1.1	Update Import Tariff (Primary Element)	Yes
	6.8	Update Device Configuration (Billing Calendar)	Yes
Change of Tenancy	3.2	Restrict Access for Change of Tenancy	Yes
Tariff Updates	1.1.1	Update Import Tariff (Primary Element)	Yes
Pre-Payment	1.6	Update Payment Mode (Payment Mode = Prepayment)	Yes
	2.1	Update Prepay Configuration	Yes
	2.2	Top Up Device (Update Balance with positive value)	Yes
Security and Key Management	6.15.2	Update Security Credential (Device) — Credential Type = Digital Signature	No
	6.15.2	Update Security Credential (Device) — Credential Type = Key Agreement	No
	6.17	Issue Security Credentials — Credential Type = Digital Signature	No
	6.17	Issue Security Credentials — Credential Type = Key Agreement	No
Update Device Firmware	11.1	Update Firmware Note: In respect of SMETS2+ Devices the DCC must ensure that the associated firmware update has been delivered to all relevant Communications Hub Functions within five days of receipt of the Service Request.	Yes
	11.3	Activate Firmware (Individual SR for each GUID for firmware activation)	Yes

Managed by

		Note: SMETS1 five-day Target Response Time.	
Logistics CH Ordering and Returns	8.14.3	Communications Hub Status Update— Fault Return	No
	8.14.4	Communications Hub Status Update— No Fault Return	No
Distribution Networks Post I&C Activity	6.15.1	Update Security Credentials (Update Network Operator Certificates)	Yes
	6.5	Update Device Configuration (Voltage)	Yes
	6.22	Configure Alert Behaviour (Update ENO Alter Configuration)	No
Meter Reads	4.6.1	Retrieve Import Daily Read Log	Yes
	4.6.2	Retrieve Export Daily Read Log	No
	4.8.1	Read Active Import Profile Data	Yes
	4.8.2	Read Reactive Import Profile Data	Yes
	4.8.3	Read Export Profile Data	Yes
	4.10	Read Network Data	Yes
	4.17	Retrieve Daily Consumption Log	No

~~Note, where the response for the ‘Update Security Credentials (CoS)’ Service Request erroneously reports a failure, the presence of subsequent Critical and Non-Critical Service Requests sent by the gaining supplier will be used as an indicator of success.~~

~~H13.1B—~~

Service Provider Performance Measures

H13.2 The DCC may modify the Reported List of Service Provider Performance Measures where it has:

- undertaken reasonable consultation with the Parties regarding the proposed modification;
- given due consideration to, and taken into account, any consultation responses received; and
- provided to the Panel, the Parties, the Authority and (on request) the Secretary of State a statement of its reasons for the modification together with copies of any consultation responses received,

and as soon as reasonably practicable following any such modification, the DCC shall provide an up-to-date copy of the Reported List of Service Provider Performance Measures to the Panel, the Parties, the Authority and (on request) the Secretary of State.

H13.3 Prior to agreeing any changes to the DCC Service Provider Contracts that will alter the Service Provider Performance Measures, the DCC shall:

- undertake reasonable consultation with the Panel and Parties regarding such changes;
- give due consideration to, and take into account, any consultation responses received; and
- provide to the Panel, the Parties, the Authority and (on request) the Secretary of State a statement of its reasons for proposing to agree such changes.

Reporting

H13.4 The DCC shall, within 10 Working Days following the end of each Performance Measurement Period, produce a report setting out the Service Levels achieved in respect of each Performance Measure. Such report must identify:

- (a) those Performance Measures (if any) for which the Service Level was less than the Target Service Level and/or the Minimum Service Level;
- (b) where a Service Level is less than the Target Service Level, the reason for the Service Level achieved;
- (c) where a Service Level is less than the Minimum Service Level, the steps the DCC is taking to prevent the re-occurrence or continuation of the reason for the Service Level achieved; and
- (d) any anticipated reductions in the DCC's Internal Costs and/or External Costs (as both such expressions are defined in the DCC Licence) arising as a consequence of the DCC Service Providers failing to achieve the Target Service Levels in respect of the Service Provider Performance Measures.

H13.5 A copy of the report produced pursuant to Section H13.4:

- (a) shall be provided by DCC, immediately following its production, to the Panel, the Parties, the Authority and (on request) the Secretary of State; and
- (b) may be provided by the Panel, at its discretion, to any other person.

Report on Performance Indicators

H13.5A At the same time as the report required under Section H13.4, the DCC shall also report on its performance against the Performance Indicators for the same period.

H13.5B The Panel shall establish and periodically review, in consultation with the Parties and the Authority, a document (to be known as the DCC Performance Indicators Document) which lists the reasonable service metrics which are to constitute the Performance Indicators, and which are therefore to be measured and reported on by the DCC. The DCC Performance Indicators Document shall include the Performance Indicators described in Section H13.5C and shall require these to be included in the report required under Section H13.5A and may request other individual Performance Indicator(s) to be included in the report, including:

- (a) graphs of daily performance in respect of delivery of each of the Business Processes;
- (b) monthly median figures for performance in respect of delivery of each of the Business Processes;
- (c) the total number of each of the Business Processes delivered each month;
- (d) for each DCC Interface separately, the average amount of downtime per Incident; and
- (e) for each DCC Interface separately, the mean amount of time between Incidents.

H13.5C When looked at on an Alert type basis (as opposed to when aggregated with other Alert types pursuant to row 3 of the table in Section H13.1), the performance of the Alerts which are subject to Section H3.14(j) against the relevant Target Response Time set out in the DCC's Power Outage & Restoration Alerts Delivery Management Document shall be Performance Indicators.

Performance Measurement Methodology

H13.6 The DCC shall:

- (a) establish and periodically review the Performance Measurement Methodology in accordance with Good Industry Practice and in consultation with the Panel, the Parties and the Authority;
- (b) seek approval from the Panel for any proposed changes that the DCC wishes to make to the Performance Measurement Methodology; and
- (c) as soon as reasonably practicable following any modification which the Panel approves, provide an up to date copy of the Performance Measurement Methodology to the Panel, the Parties, the Authority and (on request) the Secretary of State.

DCC Performance Indicators Document

This modification will also result in changes to the DCC Performance Indicators Document. The proposed changes can be found below. This will result in an uplift from the current version to v1.1.

This document is classified as **Clear** in accordance with the Panel Information Policy. Recipients can distribute this information to the world, there is no limit on disclosure. Information may be shared without restriction subject to copyright.

DCC Performance Indicators Document – v1.10

Purpose

This document contains the Data Communications Company (DCC) Performance Indicators produced in accordance with Smart Energy Code (SEC) Section H 'DCC Services' H13.5B.

The DCC shall provide metrics on the Performance Indicators within this document in its Performance Measurement Report (PMR).

Definitions

Performance Indicator: means an indicator of service performance from time to time determined by the Panel under SEC Section H13.5B 'Performance Indicators', on which the DCC is to report but which does not constitute a Performance Measure.

Business Process Performance Indicators

For each Business Process referenced ~~in SEC Section H13.1A below~~, the DCC shall measure the combination of SRVs attempted by a Service User for an iteration of that process and report the percentage of those iterations across all Service Users that returned at least one failure Alert or that did not return a response. This metric would be defined as an Indicator.

The DCC shall also use non-communicating Devices identified during each Business Process as a proxy for gauging estate health.

Business Process Performance Indicators set out the percentage of each of the Business Processes described in the table below which is delivered within the applicable Round Trip Time (RTT).

Table 1: ???			
<u>Business Process</u>	<u>Service Reference Variant</u>	<u>Description</u>	<u>SMETS1 applicable</u>
<u>Install and Commission</u>	<u>8.11</u>	<u>Update HAN Device Log</u>	<u>Yes</u>
	<u>6.21</u>	<u>Request Handover of DCC Controlled Device (Update Supplier Certificates)</u>	<u>No</u>
	<u>8.1.1</u>	<u>Commission Device</u>	<u>Yes</u>
	<u>8.7.2</u>	<u>Join Service (Join GPF with GSME)</u>	<u>Yes</u>
	<u>6.20.1</u>	<u>Set Device Configuration (Import MPxN)</u>	<u>No</u>
	<u>1.1.1</u>	<u>Update Import Tariff (Primary Element)</u>	<u>Yes</u>

	6.8	Update Device Configuration (Billing Calendar)	Yes
	8.14.1	Communications Hub Status Update Install Success	No
Change of Supplier (Gain)	6.23	Update Security Credentials (CoS)	Yes
	1.1.1	Update Import Tariff (Primary Element)	Yes
	6.8	Update Device Configuration (Billing Calendar)	Yes
Change of Tenancy	3.2	Restrict Access for Change of Tenancy	Yes
Tariff Updates	1.1.1	Update Import Tariff (Primary Element)	Yes
Pre-Payment	1.6	Update Payment Mode (Payment Mode = Prepayment)	Yes
	2.1	Update Prepay Configuration	Yes
	2.2	Top Up Device (Update Balance with positive value)	Yes
Security and Key Management	6.15.2	Update Security Credential (Device) – Credential Type = Digital Signature	No
	6.15.2	Update Security Credential (Device) – Credential Type = Key Agreement	No
	6.17	Issue Security Credentials – Credential Type = Digital Signature	No
	6.17	Issue Security Credentials – Credential Type = Key Agreement	No
Update Device Firmware	11.1	Update Firmware Note: In respect of SMETS2+ Devices the DCC must ensure that the associated firmware update has been delivered to all relevant Communications Hub Functions within five days of receipt of the Service Request.	Yes
	11.3	Activate Firmware (Individual SR for each GUID for firmware activation) Note: SMETS1 five-day Target Response Time.	Yes
Logistics CH Ordering and Returns	8.14.3	Communications Hub Status Update – Fault Return	No
	8.14.4	Communications Hub Status Update – No Fault Return	No
Distribution Networks Post I&C Activity	6.15.1	Update Security Credentials (Update Network Operator Certificates)	Yes
	6.5	Update Device Configuration (Voltage)	Yes
	6.22	Configure Alert Behaviour (Update ENO Alter Configuration)	No
Meter Reads	4.6.1	Retrieve Import Daily Read Log	Yes
	4.6.2	Retrieve Export Daily Read Log	No
	4.8.1	Read Active Import Profile Data	Yes
	4.8.2	Read Reactive Import Profile Data	Yes
	4.8.3	Read Export Profile Data	Yes

	4.10	Read Network Data	Yes
	4.17	Retrieve Daily Consumption Log	No

Note, where the response for the 'Update Security Credentials (CoS)' Service Request erroneously reports a failure, the presence of subsequent Critical and Non-Critical Service Requests sent by the gaining supplier will be used as an indicator of success.

Specific Business Process Performance Indicators

The following section defines a set of Performance Indicators for each of the identified Business Processes defined in [SEC Section H13.1A](#)~~the table above~~.

These metrics are to be made available to Users ~~in addition to Code Performance Measure 6A in SEC Section H~~.

Table 2: Install and Commission metrics		
ID	Requirement	Definition
IC1	Provide a greater level of visibility for the time taken for the DCC Total System for the install and commission process. <i>Note: Install and Commission is a complex process and is orchestrated differently by each User making measurement of the end-to-end process challenging.</i>	Measure daily total volume of successful and failed installations broken down by CH/ESME/GSME and Region.
		Measure daily total volume of installs for the period against the predicted number of installs. This will be broken down by SEC Party and anonymised as a failure to meet historic install volumes could be due to issues outside DCC control. The predicted installations will be based on historic DCC recorded installation volumes data and therefore may only be used for informational purposes.
		Measure daily total volume of Install and Commission versus Install and Leave ¹ . The reporting is to include a category for any Communications Hubs awaiting a decision that are still within the 90-day investigation period for Install and Leave.
IC2	Provide information on the impact of service degradation and outage on the User.	The DCC uses predictive modelling techniques to record and predict behaviour of meter installations in near real-time. The deviation from the norm provides a good indicator of degradation in service and the volume of messages provides a proxy measure of impact on Users. In addition, Incident Category 1 and Incident Category 2 data can be combined to provide a more accurate reflection of the User's experience.

¹ Install and Leave shall include both Proactive Install and Leave and Reactive Install and Leave as defined under the Supply Standard License Conditions.

Table 3: Change of Supplier metrics

ID	Requirement	Definition
CoS1	Provide a measure of the success of the Change of Supplier Process.	Provide information on the reason for failure e.g. where a CoS database becomes unavailable or other Service Provider issue materialises.
		Measure the overall success of SRV 6.23 on a daily basis aggregated by each Supplier Party.

Table 4: Prepayment metrics

ID	Requirement	Definition
PP1	Provide a measure of the success of topping up a device remotely.	Provide information on the volumes of success and failures within the period.
		Provide a table showing the percentage attempts to top-up before success. Provide metric for the first and second attempts and the percentage of failures. Where failure is above 5%, provide further details on the reason for the failure.

Table 5: Update Device Firmware metrics

ID	Requirement	Definition
DF1	Provide information of the success of transferring the device images from CH to the device.	Measure Device image verification success (0x8F72) and verification failure (0x8F1c) responses to provide information on the percentage of images that are successfully transferred from the CH to the Device. Record Devices that did not issue an Alert after the SLA has elapsed to identify failure to transfer from CH to the Device.
DF2	Provide information on successful activation of device firmware image.	Measure the percentage of success and failure responses to the SRV 11.3 'Activate Firmware' request.

Table 6: Alerts metrics

ID	Requirement	Definition
A1	Provide a measure of the success of delivering Alerts.	Measure the total number of Alerts that fail to be delivered within the SLA time and a breakdown of the number of failures by Alert code to identify the type of Alert impacting overall performance.

Additional Performance Measurement Report metrics

The following monthly metrics are to be recorded and reported within the PMR:

Monthly Average and Median RTT Including HAN time

- An Indicator of the Monthly Average (Mean) and Median ~~Round Trip Time (RTT)~~ including time spent within the Home Area Network (HAN).

The Median is reported because, when compared to the average/mean, this measure is less likely to be skewed by extremely large or small numbers and therefore provides a better idea of the typical response time.

Indicator of the range of ~~RTT~~ values

- An Indicator of the range of RTT values measured within the month to show the longest and slowest response time recorded.

Indicator of SRV volumes

- An Indicator of the total number (volume) of SRV requests listed in SEC Section H13.5B, recorded for the period.

Indicator for Failed SRVs

- An Indicator of the percentage of SRVs that failed to be delivered due to a communications failure or timeout (E20 or E21).

Indicator for planned downtime

- An Indicator for Planned Maintenance to show what actual availability is for Service Users. It is acknowledged that the DCC is permitted under SEC Section H 'DCC Services' to carry out Planned Maintenance.

Note, Unplanned Maintenance will not be counted under this Indicator.

Business Process Success – Performance Indicators

The DCC shall report on the success / failure of the following SRVs contained within the following Business Processes in the table below.

<u>Table 7</u>		
<u>Process</u>	<u>SRV</u>	<u>Description</u>
<u>Install & Commission</u>	<u>8.11</u>	<u>Update HAN Device Log</u>
	<u>6.21</u>	<u>Request Handover of DCC Controlled Device (Update Supplier Certificates)</u>
	<u>8.1.1</u>	<u>Commission Device</u>
	<u>8.7.2</u>	<u>Join Service (Join GPF with GSME)</u>
	<u>6.20.1</u>	<u>Set Device Configuration' (Import MPxN)</u>
	<u>1.1.1</u>	<u>Update Import Tariff (Primary Element)</u>

	<u>6.8</u>	<u>Update Device Configuration (Billing Calendar)</u>
	<u>8.14.1</u>	<u>Communications Hub Status Update Install Success</u>
<u>Change of Supplier (Gain)</u>	<u>6.23</u>	<u>Update Security Credentials (CoS)</u>
	<u>1.1.1</u>	<u>Update Import Tariff (Primary Element)</u>
	<u>6.8</u>	<u>Update Device Configuration (Billing Calendar)</u>
<u>Pre-Payment</u>	<u>1.6</u>	<u>Update Payment Mode (Payment Mode = Prepayment)</u>
	<u>2.1</u>	<u>Update Prepay Configuration</u>
<u>Pre-Payment Top Up</u>	<u>2.2</u>	<u>Top Up Device (Update Balance with positive value)</u>
<u>Update Device Firmware</u>	<u>11.1</u>	<u>Update Firmware</u>
	<u>11.2</u>	<u>Read Firmware Version</u>
	<u>11.3</u>	<u>Activate Firmware (Individual SR for each GUID for firmware activation)</u>
	<u>11.4</u>	<u>Update PPMID Firmware</u>
<u>Meter Reads</u>	<u>4.6.1</u>	<u>Retrieve Import Daily Read Log</u>
	<u>4.6.2</u>	<u>Retrieve Export Daily Read Log</u>
	<u>4.8.1</u>	<u>Read Active Import Profile Data</u>
	<u>4.8.2</u>	<u>Read Reactive Import Profile Data</u>
	<u>4.8.3</u>	<u>Read Export Profile Data</u>
	<u>4.10</u>	<u>Read Network Data</u>
	<u>4.17</u>	<u>Retrieve Daily Consumption Log</u>
<u>Tariff Updates</u>	<u>1.1.1</u>	<u>Update Import Tariff (Primary Element)</u>
	<u>1.2.1</u>	<u>Update Price (Primary Element)</u>

The Business Processes in the table above shall be measured against the following conditions to determine success.

Table 8				
<u>Scenario</u>	<u>DUIS Response Code</u>	<u>GBCS Execution Status</u>	<u>DCC Outcome</u>	<u>Business Outcome</u>
<u>SRV passes DSP validation</u>	<u>I99</u>	<u>N/A</u>	<u>ACK</u>	<u>N/A</u>
<u>SRV fails DSP validation</u>	<u>E1 – E100*</u>	<u>N/A</u>	<u>Success</u>	<u>Failure</u>
<u>Failed to send request to CSP/S1SP</u>	<u>E20</u>	<u>N/A</u>	<u>Failure</u>	<u>Failure</u>
<u>No response from Device</u>	<u>E21</u>	<u>N/A</u>	<u>Failure</u>	<u>Failure</u>
<u>No response from Device at Future Dated execution time (T)</u>	<u>E30</u>	<u>N/A</u>	<u>Failure</u>	<u>Failure</u>
<u>Failed to send request to CSP/S1SP or No response from Device for Scheduled or Future Dated SRV (T)</u>	<u>E31</u>	<u>N/A</u>	<u>Failure</u>	<u>Failure</u>

Managed by

<u>Failed to send request to ECoS Party (T)</u>	<u>E66</u>	<u>N/A</u>	<u>Failure</u>	<u>Failure</u>
<u>No response from ECoS Party (T)</u>	<u>E67</u>	<u>N/A</u>	<u>Failure</u>	<u>Failure</u>
<u>Response received – GBCS Success</u>	<u>I0</u>	<u>Success</u>	<u>Success</u>	<u>Success</u>
<u>Response received – GBCS Failure</u>	<u>I0</u>	<u>Failure</u>	<u>Success</u>	<u>Failure</u>

Note: * excludes the E codes E20, E21, E30, E31, E66, E67

(T) indicates messages related to Timeouts

The four conditions will set out the criteria for determining the success or failure of the SRVs included within the Business Processes listed in table 1 above.

SEC Modification Proposal, SECMP0242

Change to Operational Metrics to Measure on Success

Full Impact Assessment (FIA)

Version:	0.3
Date:	26th January, 2024
Author:	DCC
Classification:	DCC Public

Contents

1	Executive Summary	4
2	Document History	5
2.1	Revision History	5
2.2	Associated Documents	5
3	Context and Requirements	6
3.1	Problem Statement	6
3.2	Business Context and Requirements	6
3.3	Business Requirements	6
4	Description of Technical Solution	10
4.1	DSP Solution Description	10
4.1.1	DSP Application Component Changes	11
4.2	DCC Teams	11
4.2.1	DCC Service Ownership	11
4.3	DS&A Solution Overview	11
4.3.1	Solution Methodology	14
4.3.2	Atomic Service Request Indicator	15
4.3.3	Business Process Indicators	15
4.3.4	Summary Views	16
4.3.5	Report Delivery Mechanism	19
4.4	DSP Testing	20
4.5	DS & A Testing	20
4.6	Future Scope Changes and Development	20
5	Impact on Systems, Processes and People	21
5.1	Working Methodology	21
5.2	Security Impact	21
5.3	Data Science & Analytics Team and Wider DCC Operations	21
6	Implementation Timescales and Approach	22
6.1	DSP Timescales	22
6.2	DS&A Development and Timescales	22
7	Costs and Charges	24
7.1	Application Support	24
7.2	Contract Amendments	24
	Appendix A: Glossary	25
	Appendix B: Journey Tracking Considerations	26

Appendix C: Future Options	27
---	-----------

1 Executive Summary

The Change Board are asked to approve the following:

- Total cost to implement SECMP0242, Change to Operational Metrics to Measure on Success, which comprises:
 - £262,079 in Design, Build, Testing, and Implementation
- Expected DCC effort to develop the Business Processes of 350 Working Days to complete, a duration of 110 Working Days. The reports will be available approximately seven (7) months from Approval.

An indicative first year Application Support cost has been estimated at £13,000 per month, or £156,000 per annum.

Problem Statement

Using a previous Modification, the Data Communications Company (DCC) reports on the Round Trip Times of messages sent across the DCC Total System. However, this reporting does not give any indication of whether a business process has completed successfully from the point of view of a customer, nor does it give a view of the detail of the delay associated with a particular point in the process.

The Operations Group (OPSG) and Performance Measures Review Group (PMRG) have requested monthly reports containing the Success or Failure and execution of each of the Business Process Service Request Variants broken down by DCC outcome and Business Process outcome. The overall volume of transactions for the Service Reference Variant (SRV) for that month should also be included.

Benefit Summary

This Modification will measure the 'success' of a Service Request (SR), Service Reference Variant (SRV), or Alert as well as the perceived success of selected Business Processes with a view to identify the basis of any failures, and potentially identify areas of investigation to remove problem causes.

By including Business Processes the impact on the customer, and a differentiation between processes impacted by DCC concerns or user error, can be identified and examined.

The inclusion of Future Dated information in the Service Audit Trail (SAT) will facilitate a significant improvement in DCC being able to track business processes where either a DSP Future Dated or Device Future Dated command or SRV is invoked.

DCC views this SEC Modification as a report to provide operational indicators of end consumer outcomes, which will be used by SEC Parties to identify issues in performance and assist in rectifying orchestrations and inventories. The reports will be graphical and tabular in their nature, and provided as single reports to each SEC Party, along with a view of aggregated results.

This is a new way of viewing Business Processes and provides a valuable opportunity to use DCC knowledge and insights to assist SEC Parties in identifying areas to investigate with the ultimate intention of improving performance and the end consumer experience.

2 Document History

2.1 Revision History

Revision Date	Revision	Summary of Changes
23/01/2024	0.2	DCC Internal Review
26/01/2024	0.3	Revised duration

2.2 Associated Documents

This document is associated with the following documents:

Ref	Title and Originator's Reference	Source	Issue Date
1	DP242 Modification Report v0.2	SECAS	13/06/2023
2	MP242 business requirements v0.4	SECAS	13/06/2023
3	SECMP0242 Change to Operational Metrics to Measure on Success, PIA	DCC	8/09/2023

References are shown in this format, [1].

The Proposer for this Modification is Rochelle Harrison from British Gas.

The initial Preliminary Impact Assessment was requested of DCC on 8th August 2023.

3 Context and Requirements

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

The problem statement and requirements have been provided by SECAS, the Working Group, and the Proposer.

3.1 Problem Statement

Smart Energy Code (SEC) Modification SECMP122A 'Operational Metrics' (implemented on 25 February 2021) introduced Target Response Times (TRTs) to the Operational Performance Regime (OPR).

However, the DCC is not currently able to measure TRTs, and instead can only measure Round Trip Times (RTTs). Without TRT data, only the RTTs can be reported against the targets captured in SEC Section H 'DCC Services', reducing the value of these reports generated as part of the OPR. Within the Proposed Solution for SECMP122A, it was agreed that the criteria for measuring the success or failure of an entire business process would be determined by the number of responses and those that returned a failed response. This would be assessed by the Operations Group (OPSG) upon the presentation of the Performance Measurement Report (PMR) based on commentary provided by the DCC on each failure.

3.2 Business Context and Requirements

The OPSG and PMRG have stated that it would be more beneficial if the DCC could measure the 'success' of a Service Request (SR), Service Reference Variant (SRV), or Alert. Where a corresponding 'failure' is not due to the DCC Total System, then exceptions will be allowed.

SRs, SRVs, and Alerts from both Smart Metering Equipment Technical Specifications (SMETS) 1 and SMETS 2+ Devices will be within scope of this proposal.

This SEC Modification provides an operational report to assist in observation and triaging to improve DCC Total System performance, consequently and improving customer efficiencies and effectiveness. For this Modification, the measures it will produce will be performance indicators only, and as such will form no part of DCC's incentive regime.

The Modification will produce reporting in addition to the existing formal reports produced by DCC. It is possible the OPSG and DCC will agree that certain reports provided under SECMP0122 may become redundant and can be removed with a reduction in DS&A operating costs, but this will be reviewed after an initial run of at least three months.

3.3 Business Requirements

Requirement 1: This modification will capture the consumer experience and pinpoint areas of concern through determining the success or failure of an agreed set of Service Reference Variants (SRVs).

The Proposer has stated that the current reporting captured under the PMR does not reflect the consumer experience. The intent of this Modification is to provide additional reporting from a consumer-centric perspective, to help identify areas where performance may be improved.

Requirement 2: The DCC is to measure the success and execution of an agreed set of Business Processes and SRVs. The agreed set of Business Processes are:

- **Install and Commission**
- **Change of Supplier (Gain)**
- **Pre-Payment**
- **Top Up Device**
- **Update Device Firmware**
- **Meter Reads**
- **Tariff Updates**

The Proposer has indicated that the following Business Processes and associated SRVs are critical to the end consumer experience.

Install and Commission	8.11 Update HAN Device Log
	6.21 Request Handover of DCC Controlled Device (Update Supplier Certificates)
	8.1.1 Commission Device
	8.7.2 Join Service (Join GPF with GSME)
	6.20.1 Set Device Configuration' (Import MPxN)
	1.1.1 Update Import Tariff (Primary Element)
	6.8 Update Device Configuration (Billing Calendar)
	8.14.1 Communications Hub Status Update Install Success.
Change of Supplier (Gain)	6.23 Update Security Credentials (CoS)
	1.1.1 Update Import Tariff (Primary Element)
	6.8 Update Device Configuration (Billing Calendar)
Pre-Payment	1.6 Update Payment Mode
	2.1 Update Prepay Configuration
Top Up Prepayment	2.2 Top Up Device (Update Balance with positive value)
Update Device Firmware	11.1 Update Firmware
	11.2 Read Firmware Version
	11.3 Activate Firmware (Individual SR for each GUID for firmware activation)
	11.4 Update PPMID Firmware
Meter Reads	4.6.1 Retrieve Import Daily Read Log
	4.6.2 Retrieve Export Daily Read Log
	4.8.1 Read Active Import Profile Data
	4.8.2 Read Reactive Import Profile Data
	4.8.3 Read Export Profile Data
	4.10 Read Network Data
	4.17 Retrieve Daily Consumption Log

Tariff Updates	1.1.1 Update Import Tariff (Primary Element)
	1.2.1 Update Price (Primary Element)

Requirement 3: The DCC will measure against the following conditions to determine success:

Scenario	DUIS Response Code	GBCS Execution Status	DCC Outcome	Business Outcome
SRV passes DSP validation	I99	N/A	ACK	N/A
SRV fails DSP validation	E1 – E100*	N/A	Success	Failure
Failed to send request to CSP/S1SP	E20	N/A	Failure	Failure
No response from Device	E21	N/A	Failure	Failure
No response from Device at Future Dated execution time (T)	E30	N/A	Failure	Failure
Failed to send request to CSP/S1SP or No response from Device for Scheduled or Future Dated SRV (T)	E31	N/A	Failure	Failure
Failed to send request to ECoS Party (T)	E66	N/A	Failure	Failure
No response from ECoS Party (T)	E67	N/A	Failure	Failure
Response received – GBCS Success	I0	Success	Success	Success
Response received – GBCS Failure	I0	Failure	Success	Failure

Table 1: Conditions to be Measured (Original)

Note: * excludes the E codes E20, E21, E30, E31, E66, E67

(T) indicates messages related to Timeouts

The four conditions will set out the criteria for determining the success or failure of the SRVs included within the seven Business Processes.

The Business Outcome indicates the outcome as seen by the end Consumer. Further notes on the DS&A solution for these, and the following requirements, are given in Updated Condition and Outcomes Table on page 13 following and subsequent sections.

Requirement 4: The conditional success / failure will be agreed by the Working Group before the commencement of the DCC Full Impact Assessment and any additional conditional status will be agreed by the Panel (delegated to the SEC Operations Group).

The Working Group reviewed the PIA to determine the criteria for the success or failure of an SRV delivered to the User. If the modification is approved and implemented into the SEC, SEC Panel, who are likely to delegate to the OPSG, may choose to add further conditional statuses. This will likely be through a guidance document and a DCC Change Request, to not require further amendments to the SEC.

Requirement 5: If a timeout occurs before an SRV is received by the User, it will automatically be categorised as a failure.

Requirement 6: When measuring the success and failure of the agreed Business Processes, the DCC is to provide reporting that includes retries, and also without, for transparency.

During discussion with the OPSG, it was agreed that the DCC will provide reporting that will factor in SEC User retries, and also report without them. This will provide transparency to SEC Parties on how retries impact DCC performance. An example of this is a Supplier Party sending the same SRV repeatedly to commission a newly installed Device. This will be displayed as a measurement of retries against each SRV.

Requirement 7: The data included in the report will be classified as a Business Process Indicator.

During the Refinement Process, the DCC has stated that categorising the data as measures will likely have high associated costs. As such, the data will remain as indicators.

4 Description of Technical Solution

Following analysis of the Requirements above, the DSP and DCC teams propose the following solution:

- The addition of Future Dated SRV information by the DSP to help the DCC DS&A team review and report on business processes overall.
- Creation of a dedicated data-model within the DCC production data platform.
- Using the data model to produce a simple summary report detailing the Success / Fail of the Business Process broken down by DCC Outcome and Business Process outcome as a percentage, volume of transactions for the combined Business Process SRVs will also be provided to help give context, and with no exclusions.
- Using the data model to produce a more detailed report containing the Success / Failure and execution of each of the Business Process SRVs broken down by DCC outcome and Business Process outcome. The overall volume of transactions for the SRV for that month will also be included.
- Journey tracking will be used to help explain gaps between the simple raw SRV reporting and E2E consumer and SEC Party experience of the success / failure and execution of the request ID within the business process, and it's associated journey using SRVs. Journey tracking will require much larger data models and processing.
- Reports will be compiled and shared with SEC Parties via SharePoint.

4.1 DSP Solution Description

Changes to the DSP are required to provide the execution date and time within the SAT log for Future Dated requests .

For DSP Future Dated requests, the first SAT log entry written for the request will have the northbound sent date and time populated with the execution date and time (instead of being empty). This will be the SAT record with:

- Mode of Operation = 10 (DSP Future Dated)
- Transaction status = 18 (Stored for Future Delivery)
- Report status id = 3 (DCC Only/Transform Complete)

For Device Future Dated requests, this will be the SAT record with:

- Mode of Operation = 4 (Device Future Dated)
- Transaction status = 1 (Pending Completion)
- Report status id = 1 (On Demand Southbound Pending Completion)

To minimise the change impact, the existing fields will be utilised for the date and time, and there will be no additional field added to SAT records.

Given the scope of the changes and DCC's desire to only use feature switches where necessary, it is proposed that the DSP application changes are not protected by a feature switch.

4.1.1 DSP Application Component Changes

Two small changes are being made to the DSP:

Request Management	When first logging a Future Dated request, populate the 'northbound sent time' field in the SAT entry with the future dated execution time.
Self Service Interface	For the two SAT log entry types where the 'northbound sent time' field contains the future dated execution time, the SSI application needs to ignore/remove this data (from display/downloaded file) so that the "response sent" data continues to reflect northbound sent time.

In addition, the Logging Functional Specification will be updated to define the contents of the 'northbound sent time' field for Future Dated requests.

No changes to the Security model, required infrastructure, performance, or other elements of the DSP are expected. There are no change to DUIS, GBCS, or any other Technical Specification.

4.2 DCC Teams

Both the DCC Data Science and Analytics (DS&A) and Service Ownership teams will be responsible for the reporting design, development, implementation, and Business as Usual (BAU) maintenance of the solution for this Modification.

4.2.1 DCC Service Ownership

DCC's Service Ownership (SO) function was formed in March 2023. It has particular focus on having accountability of performance management of End to End (E2E) Business Processes within the DCC. This means a focus on consumer and customer outcomes, so DCC can deliver optimal service. The SO team own and act as the experts of the E2E processes and controls that enable a seamless DCC managed Smart Meter experience, as well as translating Service and Technology into Operational insight, which enables in depth understanding of the factors that impact performance. The SO team will also drive proactive continuous improvement to deliver optimal end user outcomes, for future and current services.

4.3 DS&A Solution Overview

Utilising the data contained within the SAT and Inventory datasets received from the DSP, a bespoke data pipeline will be developed to produce a data model. The data model will be used to categorise and report on DCC and Business Process success or failure as per Requirement 3 above.

The categorisation of each individual Request in isolation may not give an accurate indication of the real-world end-user experience of performance.

This is where journey tracking comes into play. Journey tracking looks at the requests sent to a device and uses the SRVs and alert responses data to understand if the process was ultimately successful. A simplistic example of this could be SRV 8.11 used in the Install and Commission (I&C) process. It could be the outcome of the 8.11 was E20 or E21 but there

could still be a N24 Alert in close proximity to (but after) the 8.11 showing the join was successful, even if the outcome appeared to be a failure.

Journey tracking will also look to see if multiple similar SRVs were sent to a device in a short space of time. If one of the requests were to succeed and the rest were to fail, the outcome of the Journey would be considered a success.

Measurement of success of a journey and the data points that can be used will vary significantly. Prepayment SRV 2.2 is an example of where DS&A have data around the Unique Transaction Reference Number (UTRN) generation that can be combined with other alerts to not only identify the Journey outcome but also give a much better indication of where the cause of failure could be.

The output of Journey tracking will be broken down by Business Process. If Journey tracking indicates a journey was ultimately successful it will be broken down into categories and added to the baseline success figure defined in Requirement 2 of this document. The inclusion of the DSP Future Dated information will enhance the reporting accuracy wherever a Future Dated Service Request is used by a SEC party.

Notes on the requirements and solutions follow. It should be noted that any changes listed in the sections below have been reviewed and refined during the FIA development.

Requirement 1: This report will attempt to ensure the timescales align with Business Process Indicators.

Requirements 2 & 3 are part of the same dataset as the tabled criteria. For Device dated SRVs, a count of 8F66's will be considered execution success against the business outcome and 8F67 will be execution failure.

Requirement 3: In addition to stated conditions, DCC will add a "delayed success" in which evidence of the Service Request being successful is measured. This condition relates to DCC receiving an Unsolicited Service Response from the device post SRV completion which signals that the request was processed successfully by the device. This conflicts with Requirement 5 which should be removed as a requirement of the reporting.

Anomaly Detection Threshold and Attribute checks are completed on Service Request Variants included in the business processes. SEC Parties receive either an N46, N47 or N48 DCC Alert as a response to quarantine service requests. Therefore, an "Anomaly Detection Quarantine" condition will be included.

It is proposed that the "No response from Device at Future Dated execution time" condition is changed to a DCC Outcome of Success. For this condition to be true, the command must have been set up at the meter and for an unknown reason, the meter at the time of execution did not fully execute the command. This is therefore a Business Outcome failure but not a DCC failure as the command has been delivered.

It is further proposed that an additional scenario is added in which the DCC has successfully received a response to the service request, but the SEC Party systems have failed to acknowledge / rejected receipt of the response. This would be a DCC success but a business failure.

Table 2 shows the proposed revised Scenario and Outcomes table with changes and additions shown in **Red**.

Scenario	DUIS Response Code	GBCS Execution Status	DCC Outcome	Business Outcome
SRV passes DSP validation	I99	N/A	ACK	N/A
SRV fails DSP validation	E1 – E100*	N/A	Success	Failure
SRV fails Anomaly Detection checks	N/A	N/A	Success	Failure
Failed to send request to CSP/S1SP	E20	N/A	Failure	Failure
No response from Device	E21	N/A	Failure	Failure
Delayed Response from Device	I0	N/A	Success	Success**
No response from Device at Future Dated execution time (T)	E30	N/A	Success	Failure
Failed to send request to CSP/S1SP or No response from Device for Scheduled or Future Dated SRV (T)	E31	N/A	Failure	Failure
Failed to send request to ECoS Party (T)	E66	N/A	Failure	Failure
No response from ECoS Party (T)	E67	N/A	Failure	Failure
Response received – User Rejection	NA	NA	Success	Success**
Response received – GBCS Success	I0	Success	Success	Success
Response received – GBCS Failure	I0	Failure	Success	Failure

Table 2: Updated Condition and Outcomes Table

Note: * excludes the E codes E20, E21, E30, E31, E66, E67

Note: ** for any configuration state change this will be seen as Journey success, for any read related responses this will be seen as a Journey failure.

(T) indicates messages related to Timeouts

Requirement 4 – Journey Tracking is defined as a review of the end-to-end execution of the successful outcome of the business process and the associated SRVs. Included in the Journey Tracking are:

- Looking at unsolicited SRVs to understand the outcome of a transaction outside of the response window.
- Looking at subsequent success – so the first request may fail but if there is a success within a reasonable time window the journey is considered a success.
- Where an SRV can be utilised for purposes other than the specific business process DS&A will look to allocate the SRV to the appropriate process. An example of this is 1.1.1 which can be used for I&C, Change of Tariff and CoS.

SECMP0242 is looking at reporting the ultimate outcome of a Business Process. The report will consider timeout to be deemed a failure in the context of understanding the number of attempts required for a Successful outcome.

The end-to-end execution will look at the intent of the specific business process and whether it ultimately succeeded. Failures will be broken down into buckets of likely DCC or non-DCC

responsibility. For instance, an E4 is likely to be non-DCC while an E66 is likely to be DCC's responsibility.

Due to the complexity of defining and building Journey outcome measurements, defining all conditional measurements across the seven business processes was not in the scope of the FIA. DCC has focused on detailing the Change of Supplier (CoS) process as an example of how Service Requests within Journeys will be associated to produce the Journey outcome, and this has been used as a sizing template to assess the expected duration and cost of the development as a whole.

For all other business processes except CoS, during the Detailed Design phase the Working Group and DCC Development team will agree the method by which they wish to handle the timelines for agreement of success statuses.

Requirement 5 – Timeouts categorised as failures

DCC cannot currently measure TRTs accurately and as such, timeliness of Service Requests will not be included within the reporting outputs beyond retries and timeouts. Only the success metrics will be included in the outputs.

There is a scenario in which a meter does not respond back to a command within the allotted Service Request timeout limit. For these requests, DCC does see evidence of a successful command despite the timeout and return of a DUIS error code to the SEC Parties. For any configuration state change, SRVs such as 1.6, 8.11 or 1.1.1 will be considered as a DCC and Business Outcome success. For read requests such as 4.6.1, 4.8.1 and 4.10, these will be considered as a DCC outcome success but a Journey outcome failure because the intended purpose of those commands has not been met.

The benefit of using a delayed success measure is that it provides an indication of when activities as part of the Journeys that are thought initially to have failed have, with delay, succeeded at the meter. This will give an additional view never provided before of meter delay which may be used to assist in identifying and investigating issues. If not included, this detail would be lost in a generic E21 failure bucket.

The proposed solution provides more detailed information than a straightforward compliance with Requirement 5.

Requirement 6 -- Retry Tracking

DCC will factor retry tracking into all Business Process Journeys which will give an indication of first time and subsequent success and how many attempts it took to complete. It will also provide a view of SEC Party orchestrations that include multiple attempts to send, and SRV's which lead to redundantly sending multiple attempts after a success.

This methodology provides transparency to SEC Parties on how retries impact DCC performance. An example of this is a SEC Party sending the same SRV repeatedly to commission a newly installed Device. This would be reporting at the atomic level as the number of attempts and at the Journey level as one install.

For **Requirement 7**, all the relevant service requests, and any re-submissions within the end-to-end process will be included.

4.3.1 Solution Methodology

Following analysis of the requirements above, the DCC solution will focus on:

- Creation of new logic relating to aggregation of Service Requests into Business Processes to give a new view of consumer experience.
- Creation of reporting output of Service Request level and Journey level indicators for each SEC Party, along with an aggregated view of all outputs. This will assist SEC Parties in identifying operational issues and where improvements may be available.

For this scope to be realised the DCC proposes the outputs for each of the seven Business Processes be metric indicators with no exclusions, provided at:

- Atomic Service Request level, as defined in section 4.3.2 following; and
- Business Process Indicator level, as defined in section 4.3.3

Indicators will be calculated based only on success and not related to timeliness metrics. To calculate success metrics, SRV status flags within the SAT will be utilised to determine the terminal status of each attempt.

A report should be made available to all SEC Parties covering their own individual activities as well as an aggregated view.

In the following sections, the Change of Supplier (CoS) Journey is used for illustrative purposes unless otherwise stated.

4.3.2 Atomic Service Request Indicator

Atomic Service Request Indicators relate to metrics on an SRV-by-SRV basis including all unique attempts for that individual SRV. A success percentage based on the scenario table in Table 2 will then be calculated to provide DCC Outcome and Business Outcome indicators of success.

The Change of Supplier process will include Atomic SRV metrics for:

- 6.23 – Update Security Credentials (CoS)
- 1.1.1 – Update Import Tariff (Primary Element)
- 6.8 - Update Device Configuration (Billing Calendar)

4.3.3 Business Process Indicators

The categorisation of each individual Request at an atomic level may not give an accurate indication of the genuine end consumer experience.

Business Process Indicators relate to aggregating multiple service requests into one combined Journey metric. Business Process Indicators will contain the SRVs specified in section 3.2 requirement 2.

Measurement of success of a Journey is based on if the intended purpose of the journey initialisation was realised. For example, in Change of Supplier the intended purpose is to replace meter or GPF in-use supplier certificates, update the tariff and set up a billing calendar. If all these criteria are successful, then that Journey has been successful.

The data points will vary significantly across Business Processes. For example, the prepayment top-up SRV 2.2 is an example of where DCC has UTRN generation information

that can be combined with other alerts to not only identify the Journey outcome but also give an improved indication of potential causation of outcomes.

The following are examples of how Business Process Indicators will be processed during Change of Supplier include:

- If a meter had a 6.23, 1.1.1 and 6.8 and each SRV was successful, this would be considered as one successful Journey.
- If a meter had two 6.23s and only the second one was successful, as well as successful 1.1.1, this would be considered as one successful Journey, as the meter has ultimately undergone a successful Change of Supplier.
- If a meter had a successful 6.23 but an unsuccessful 1.1.1 this would be considered as a failed Change of Supplier as the Journey has not completed with the fallout being the 1.1.1.

If an SRV has not been attempted as part of a business process, then it shall not be counted towards the success of a Journey. An example for Change of Supplier would be if a 6.8 had not been attempted to set up the billing calendar, then a lack of 6.8 will not influence the Journey outcome and only the 6.23 and 1.1.1 would be used to calculate the indicator.

The benefit of joining and aggregating SRVs at a device level into Journeys is that it provides a more reflective indicator of genuine end consumer experience with process fallout created, rather than a simplistic view of total counts of unique service request attempts at the atomic service request level.

An example of indicator processing for the CoS could be:

1. 1,000 unique 6.23 attempted.
2. 980 had been assigned successful under DCC Outcome measures.
3. 950 had been assigned successful under Business Outcome measures.
4. DCC Outcome Indicator calculated at 98%
5. Business Outcome Indicator calculated at 95%

Business Process Indicator reporting requires larger data processing capabilities as well as a larger data model than seen in previous reporting Modifications. This is due to the requirement to process and aggregate multiple Service Requests as well as processing the aggregated Journeys.

4.3.4 Summary Views

DCC has created some exemplar mock-ups of reporting outputs to show both Business Process and Atomic Service Request indicators. During the development lifecycle specified in Figure 20 on page 22 these are subject to change in line with SEC Party feedback.

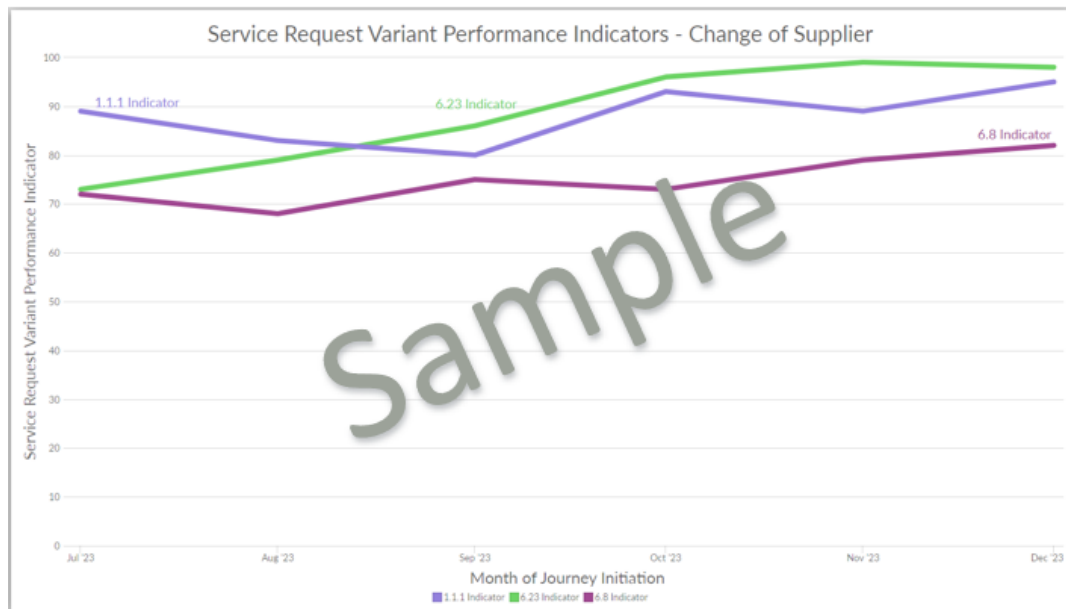
The mock ups below are provided for illustrative purposes only, with the final outputs to be developed alongside SEC Parties to ensure effectiveness.

Summary views will be provided for each SEC Party of Business Process Indicators over the previous six (6) months and a graph showing the same month the previous year with the

Journey indicator success percentage as a line view and volume of initialised Journeys across the bars. An aggregated view of all indicators across all SEC parties will also be provided. Note the first set of reports provided are likely to not show data prior to the solution implementation.



A similar format will be used for the Atomic Service Request indicators with each individual SRV success indicator having its own line view as displayed.



Tabular breakdowns per Business Process and per atomic service request as well as multiple success measures including overall success and first-time success will be shown as below:

SRV	Attempted in Journey	DCC Success	1st Time Success DCC	Business Success	1st Time Success Business	Avg Attempts
6.23	100%	95%	85%	91%	82%	1.1
1.1.1	90%	98%	89%	97%	88%	1.03
6.8	85%	96%	90%	94%	87%	1.2

Further metrics such as subsequent success and delayed success are also in the reporting to provide a more detailed breakdown.

One of the purposes of this modification is to provide Business Process Indicators. It is proposed that as an optional extra requirement, a breakdown of error fallout could be provided as part of the reporting. The view of Journey fallout would be a flying brick with success metrics along the x-axis, initial bricks showing success, and subsequent bricks of fallout which have caused the impacted Journeys to be assigned as failures. A mock up flying brick view is displayed below.

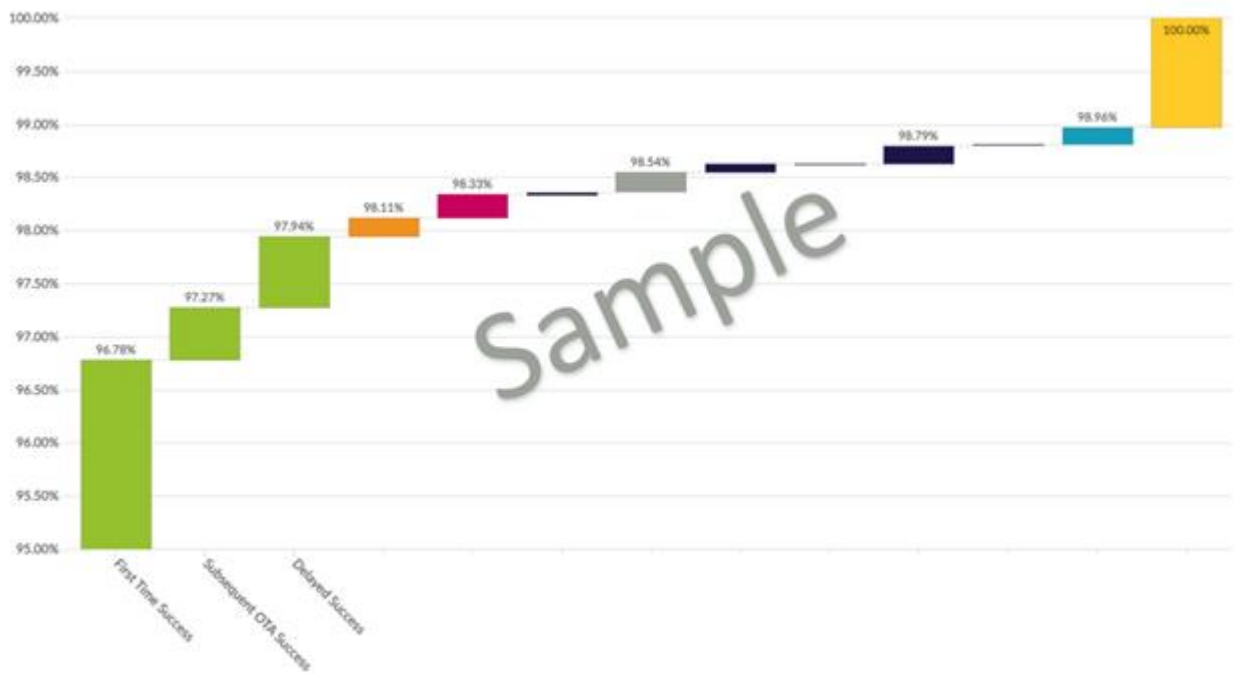


Figure 1: Sample Flying Brick View

For each business process, the buckets of fallout would vary significantly but with some shared categories. For example, a Change of Supplier view could have ECoS certificate fallout whilst Prepay top-up could have duplicate UTRN entries. Both criteria are subject only to their business processes and as such will not appear in others. Examples of shared buckets would be validation failures such as E4 – invalid User and E5 – Invalid device status.

The buckets of fallout for each business process will be defined in the development / SEC Party feedback steps of the development cycle in Figure 2 on page 22.

The flying brick views will be accompanied by a tabular view of the bricks (categories) detailing the associated error. The following shows a sample tabular view.

Category	DUIS Response Code	Journeys Impacted
First Time Success	IO	2400
Success Failed GBCS Execution	IO	100
Delayed Success	n/a	302
Anomaly Detection	N46, N47, N48	480
Device in Incorrect State	E5	23
CH Exclusion	n/a	34
Failed to send to CSP/S1SP	E20	67
No response from Device	E21	1000
No Response at Future Dated time of Execution	E30	89
Failed to send to CSP/S1SP or no device response at scheduled or future dated time of execution	E31	774
Failed to send to ECOS	E66	2
No response from ECOS	E67	2

Table 3: Sample Tabular View for a Business Process

Both the flying brick and tabular fallout breakdown will cover only the most recent month of data to ensure information consumed is relevant and not related to historical issues.

Note that the full list of planning considerations, constraints, and design decisions for the Journey Tracking is included in Appendix B: Journey Tracking Considerations near the end of this document.

4.3.5 Report Delivery Mechanism

The initial plan is that reports for each SEC Party will be added to SharePoint.

Given the recent approval of SECMP0176, Customer Analytics Reporting where each SEC Party will have their own login and Portal to view DS&A reporting, the optimal location for sharing each Parties' reports will be the Portal landing area. This option will be considered due to the detailed planning stage, and if implemented would reduce application support costs.

Based on requirement 6 above, DCC can generate the Business Process Indicators by the 3rd Monday of each month.

4.4 DSP Testing

The development and testing will not follow the Pre-Integration Testing (PIT), System Integration Testing (SIT), and User Integration Testing (UIT) pattern associated with a "standard" SEC Release, and will not require the testing services of the System Integrator or CSPs.

For the DSP changes, As the generation, format, and content rules of the files will be validated in the PIT environment the SIT team will not repeat this testing in the SIT environment. SIT will focus on the integration aspects of the change.

The following total test volumes and test throughputs are the basis of the pricing estimate for the DSP change in this Modification. 27 tests will be carried out over a period of 18 Working Days, with no specific testing required.

No new devices are required for this change as the Maintenance environment uses the existing Maintenance Release devices for SIT-A.

The new behaviour does not introduce any changes to system integrations within the DCC Toal System since the changes to the functionality are entirely within the DSP component. Any testing executed as UIT would be a repeat of a subset of the testing executed under other phases of testing covered by this Modification, therefore, no UIT execution is proposed or recommended.

4.5 DS & A Testing

Note that the development will include selected SEC Party participation working in sprints, and validating the progress of the reports through the development phase as described in sections 5.1 and 6.2 following. This will be run by the DS&A team and will act as an extra form of user validation.

PIT will be provided and carried out by the Service Provider and assured by DCC Testing Assurance. SIT will be carried out in a similar way, but User Acceptance Testing will replace the "standard" UIT be carried out with participation from a subset of SEC Parties as described in section 6.2.

4.6 Future Scope Changes and Development

It should be noted that only the seven business processes stated in Requirement 2:

- **Install and Commission**
- **Change of Supplier (Gain)**
- **Pre-Payment**
- **Top Up Device**
- **Update Device Firmware**
- **Meter Reads**
- **Tariff Updates**

are in scope for this Modification. It will require a DCC Change Request and agreed costs and durations agreed between OPSG and DCC to add further processes, individual SRs, SRVs, or other functionality.

A list of further, potential changes is given in Appendix C: Future Options, at the end of this document. These have not been included as part of the FIA costs and durations.

5 Impact on Systems, Processes and People

As defined the change included in this document is mostly confined to data already within DCC and available to DS&A, with no expected changes impacting SMETS1 or SMETS2 Service Providers.

5.1 Working Methodology

During the requirement gathering and refinement, principally as part of the SECMP0122 process which drove the original SECMP0122 and 176 requirements, DCC and SECAS hosted workshops with the Working Group. These workshops aimed to validate the proposals in the Operational Metrics Review (OMR) in terms of the viability of implementing the recommendations, to refine the requirements further, and to enable fast delivery of new requirements and improvements.

It is proposed that the reporting as specified within this Modification will be delivered by DS&A via an iterative delivery mechanism, whereby a Minimum Viable Product (MVP) will be available in a first Sprint in the Implementation phase as shown in Figure 2. Following consultation with the Working Group, further functionality can be delivered in a fast and frequent continuous delivery mechanism until the final product is complete. This is considered the fastest and most exact method in ensuring the requirements are fulfilled and is described further in Section 6.

5.2 Security Impact

The solution will be designed and implemented to ensure that only data related to the relevant SEC Party is made available and will be security assured during the implementation phase through standard DCC reviews. No impact from such assessments is anticipated. Penetration testing will be required and is included in the costs following.

The solution will be security assured during the implementation phase and will comply with standard DS&A reviews, however no impact from such assessments is anticipated.

5.3 Data Science & Analytics Team and Wider DCC Operations

The full range of activities required to implement these requirements including design, development, testing, and implementation would be performed by DCC utilising in-house contractors and permanent staff. There will be a slight increase in the Full Time Equivalents (FTEs) required to do this and support, maintain, and deliver the reporting monthly. These Application Support efforts are costed in section 7 below.

6 Implementation Timescales and Approach

A key factor in planning and delivering this Modification's implementation and is that the reporting is not part of the Smart Metering System, and that the DSP and reporting changes do not impact any Technical Specifications, such that they can be implemented separate from the now-standard SEC Release dates. In an ideal scenario the DSP changes would be implemented in a Maintenance Release early in the DCC development cycle such that the additional SAT data is available for the DCC teams to code and test against.

Once this Modification is Approved, detailed planning of the implementation will take place, with a view to providing the quickest path to delivery.

6.1 DSP Timescales

From CAN approval to the completion of testing and implementation in a maintenance release, a period of four (4) months is anticipated.

6.2 DS&A Development and Timescales

The scope of SECMP242 is the creation of new Journey tracking logic for use in the Business Process Indicators, as well as building reporting output for those indicators at the Atomic Service Request level.

DCC is committed to working with SEC Parties, some of whom have already expressed an interest with working in partnership throughout the development. SEC Party feedback will be vital in testing logic and output for accuracy and usability.

A high-level development pipeline is proposed:

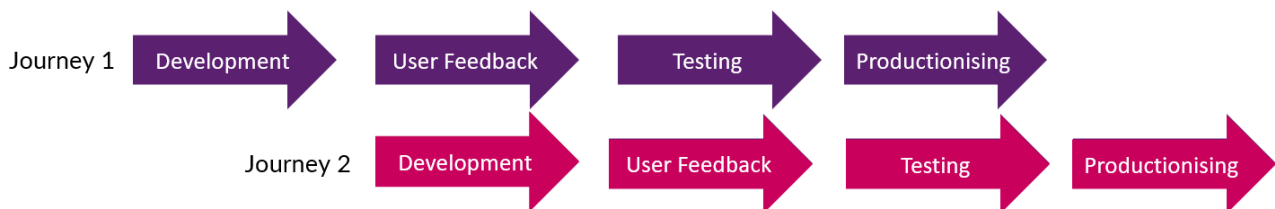


Figure 2: Development Cycle for Operational Metrics Reporting

A pipeline approach has been chosen to allow time for User feedback on the development of Journey logic and reporting output without halting further development work on other processes while waiting. The first Journey attempted will be CoS as agreed with the Business Proposer, but the order for the remaining Journey development will be agreed during the planning stage. As I&C is the most complex, DCC request that this is left to the last to enable DCC to take advantage of the lessons learned from implementing the previous six Journeys, in order to maximise benefit and knowledge.

The development and testing of Business Process tracking logic and reporting does not require testing in the PIT, SIT, or UIT pattern associated with a "conventional" SEC Release, and will not require the testing services of the System Integrator or CSPs.

The timescale to complete the implementation of each Business Process will be on average 50 Working Days (WD), and there are seven Business Processes. This is equivalent to an elapsed 350 WD with a development duration of 110 WD, or approximately five (5) months. User Acceptance testing will be completed by working with volunteering Service Users as indicated in Figure 2. These timescales assume no significant delays are encountered within review phases.

Figure 3 gives an indicative plan of the order of work and expected durations for the whole Modification. The Detailed Planning phase would identify the order of Business Process work, along with expected dates for Service User involvement.

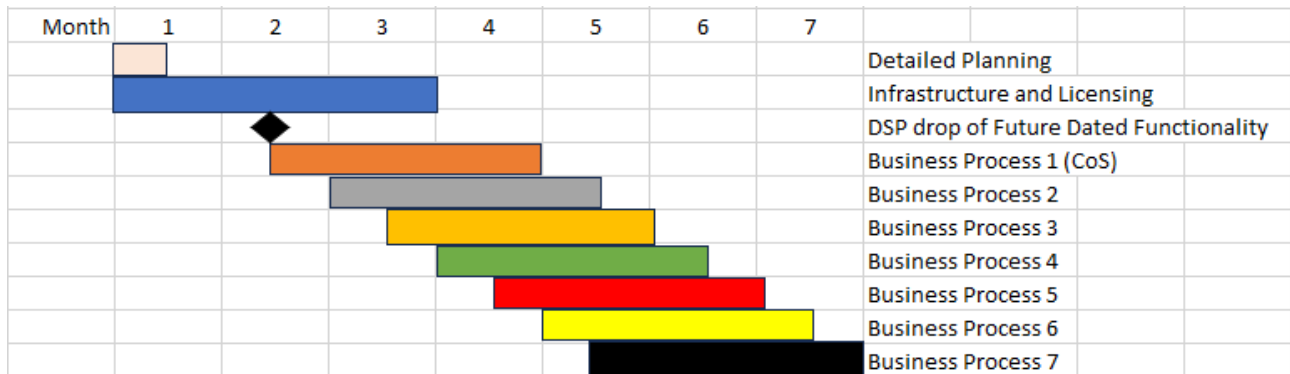


Figure 3: Indicative Plan for Implementing SECMP0242

7 Costs and Charges

This section indicates the total quote for the application development stage for this modification. Note these costs assume a standalone release of just this SEC Modification without any other Modifications or Change Requests.

Design, build, testing and implementation will attract one off cost as identified and will not follow the PIT, SIT, and UIT pattern associated with a "conventional" SEC Release.

£	Design, Build, and Implementation
Metric Development (SO)	£90,000
Report Production (DS &A)	£110,000
Additional Future Dated SAT Data (DSP)	£62,079
Totals	£262,079

7.1 Application Support

Application Support refers to keep the application maintained and running. It is quoted as a monthly cost and incorporates Full Time Employee (FTE) effort, additional infrastructure, and software licensing costs. An indicative first year cost has been estimated at £13,000 per month, or **£156,000 per annum**. Subsequent Application Support costs will be considered as part of Business as Usual, and will be covered as part of the annual DS&A costs.

Futures changes in the reporting or additional data requested by SEC Parties would be directed to the DS&A team, and would be assessed on a case-by-case basis.

7.2 Contract Amendments

The DSP changes require approval through a CAN. The contract updates for this Modification will be detailed within the CAN and will impact the following schedules:

- Schedule 2.1 (DCC Requirements): update to reflect the addition of new DCC Requirements
- Schedule 3 (DCC Responsibilities): update to reflect the addition of new DCC Responsibilities
- Schedule 4.1 (Contractor Solution): Solution Design documents updates
- Schedule 6.1 (Implementation Planning): addition of new Milestones
- Schedule 7.1 (Charges and Payment): revisions to incorporate the charges and payment applicable

There will be no updates to any other schedules not listed above d this Modification, including Schedule 2.2 (Performance Measures and Monitoring).

Appendix A: Glossary

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

Acronym	Definition
BAU, BaU	Business As Usual
CAN	Contract Amendment Note
COS	Change of Supplier
CSP	Communication Service Provider
DCC	Data Communications Company
DSP	Data Service Provider
DS&A	DCC Data Science and Analytics
DUIS	DCC User Interface Specification
ECOS	Enduring Change of Supplier
ESME	Electricity Smart Metering Equipment
E2E	End to End
FIA	Full Impact Assessment
FTE	Full Time Employees
GBCS	Great Britain Companion Specification
GPF	Gas Proxy Function
GSME	Gas Smart Metering Equipment
I&C	Install(ation) and Configuration
MVP	Minimum Viable Product
OMR	Operational Metrics Review
OPR	Operational Performance

	Regime
OPSG	Operations Group
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
PMR	Performance Measurement Report
PMRG	Performance Measures Review Group
PPMID	Payment Meter Interface Device
RTT	Round Trip Times
SAT	Service Audit Trail
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SO	DCC Service Ownership
SLA	Service Level Agreement
SMETS	Smart Metering Equipment Technical Specification
SR	Service Request
SRV	Service Reference Variant
SSI	Self-Service Interface
S1SP	SMETS1 Service Provider
TRT	Target Response Times
UIT	User Integration Testing
UTRN	Unique Transaction Reference Number

Appendix B: Journey Tracking Considerations

There are several aspects that should be considered while mapping out Journey logic:

- Where an SRV is DCC only – 8.14.1 for instance – only the success (response Code) will be used to calculate success as it does not execute on the meter.
- For install and commission, only installs initiated between 7am – 7pm Monday – Saturday will be included within the reporting metrics.
- For Change of Supplier, DCC intend to determine the purpose of the request. Only Journeys where an end-user is moving from one Energy Supplier to another will be included.
- For service requests that appear in multiple Business Processes, the requests will be assigned to the Business Process they relate to. For example, SRV1.1.1 appears in I&C, COS, and the Tariff Change Journey.
- For device future dated SRVs, a count of 8F66's should be considered execution success against the business outcome and 8F67 will be execution failure.
- DCC will leverage this Modification to reduce the current overhead on reporting and after completing development, will seek guidance from OPSG on measures that are no longer required and can be removed.
- Once these performance indicators are produced, consistently poor performing processes leading to consistent failure within the business processes must be addressed by helping SEC Parties take the necessary action to improve.
- DCC and the SEC Parties will, as part of the Journey mapping, agree what good success measures look like and agree the minimum targets within each individual Journey.
- DCC expect to identify areas of performance that might require investigation in the infrastructure. Infrastructure investigation is out of scope for this Modification, but will need to be taken into account.

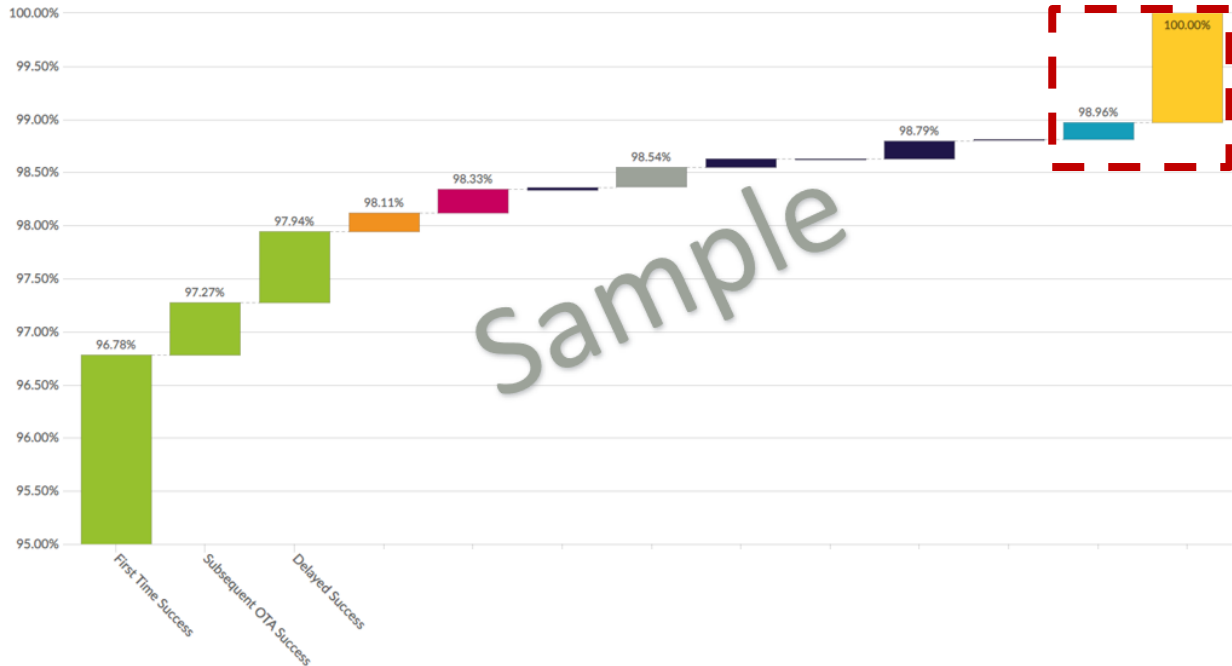
In terms of Journey tracking constraints:

- Journey tracking will be calculated based on the DSP SAT and Inventory datasets, rather than any CSP or adaptor data.
- As part of the implementation phase of Journey Tracking, DCC may identify Journeys that cannot be fully tracked. The inclusion of additional requested DSP data points would significantly improve accuracy, above what is currently available. However, these additions are out of scope for this FIA and Modification as a whole.
- Some key business processes have significant differences in the way SEC Parties deploy into the estate. DCC cannot measure every variance in these processes and in line with development of this Modification, the scope is strictly limited to that specified in the Requirements above.

Appendix C: Future Options

This section includes potential future additions to the Operational Metrics reporting.

1. The red dotted boxed buckets shown in the flying brick diagram below are a granular view of E21s. These are outside the scope of this Modification due to the need for CSP network level data associated with E21s being needed to break down this bucket into actionable owners



for triage and resolution.

2. For use alongside the SECMP242 reporting, DCC could produce additional technical specifications per Business Process to support each output. This could be focused on the optional waterfall and fallout views provided. The intention being to assist SEC Parties in understanding their service request / Journey indicators and identifying where improvements may be made.
3. In these additional technical specifications could be included knowledge articles detailing what makes up fallout buckets and, where available, how to resolve issues using existing handling strategies or best practise documents.
4. A further enhancement to SECMP242 reporting could be the addition of CSP level information in relation to breaking down the E20 and E21 errors. If made available, information from CSPs including last CHF time of communication at the network level would enhance reporting. A new fallout bucket would become available relating to whether a CHF attached to the meter is communicating and as such provide additional insight into the status of meters on the estate. Using these, SEC Parties could look to target problem meters and clean up inventories where devices are no longer "on-the-wall".
5. Active Schedule/ Meter Read Information; an additional data source for enhancement of Journey tracking in the meter reads Journey. This change would consist of DCC receiving DCC schedule information for all active schedules including:

- Device Id

- Schedule Type (Service Request Variant)
- Schedule Start/ End Date
- Schedule Frequency (daily, weekly, monthly etc)
- Schedule execution time
- Start and End date offsets.

In addition to this schedule information a further entry in the SAT for start and end date offsets would need to be added for any meter read SRV sent as on-demand or future dated. This information would enhance the meter reads Journey by indicating success based on length of read and being able to tie on-demand attempts to previous schedules for Journey tracking. This is beneficial for determining best chance of success as different types of Users utilise different lengths of read. For example, an Energy Supplier may use one day reads, while a DNO may read a week or a month at once.

This would be an enhancement similar to UTRN identification for prepayment top-up which DCC already receives.

6. Device Certificate Information would be an additional data source for enhancement of the flying brick view of fallout with device certificate information similar to that of supplier certificate information that DCC already possesses.

Included in this extract would be:

- Device Id
- Device Certificate serial numbers
- Certificate Status (pending/ in-use)
- Status Change datetimes
- Certificate type (DS/ KA)

By receiving in-use and latest device certificate information, DCC can tie device certificate misalignments to failed Journeys and display as a fallout view in the Journey Indicator outputs. DCC can then provide guidance on this bucket as to steps to help resolve issues.

7. CSP Information; the addition of CSP level information in relation to breaking down the E20 and E21 errors. If available, information from CSPs including last CHF time of communication at the network level would enhance reporting.

A new fallout bucket would become available relating to whether a CHF attached to the meter is communicating and as such provide additional insight into the status of meters on the estate. Using these, SEC Parties could look to target problem meters and clean up inventories where devices are no longer “on-the-wall”.

8. As part of the solution DCC could look to provide a mechanism to introduce additional datasets that can be used to understand lower than expected success rates. This could be SRVs sent during maintenance windows, as well as SRVs sent to ‘non-communicative’ or

non-compliant devices. Some of these datasets might require new supply, others might use data within the existing data warehouse.

This document is classified as **Clear** in accordance with the Panel Information Policy. Recipients can distribute this information to the world, there is no limit on disclosure. Information may be shared without restriction subject to copyright.

MP242 ‘Change to Operational Metrics to Measure on Success’

Annex D

Refinement Consultation responses

About this document

This document contains the full collated responses received to the MP242 Refinement Consultation.

Question 1: Do you agree that the solution put forward will effectively resolve the identified issue?

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
Utilita	Large Supplier	Yes	We agree that the solution will resolve the issue identified, however, we believe that simply reporting on success or failure does not give a full picture of the performance of the network as a whole and believe that the existing time-based reporting should be retained alongside the success reporting as the two-work hand in hand to give a complete picture of performance. These paired reports can also help identify and pinpoint issues across the network, and as the time-based reports are already being produced, this should not increase costs.	SECAS will discuss the possibility of retaining the two sets of reporting metrics with the Proposer and the DCC.
British Gas	Large Supplier	Yes	-	N/A
Ovo Energy	Large Supplier	Yes	-	N/A
Octopus Energy	Large Supplier	Yes – partially	The proposed solution provides a more distinguishable breakdown between what DCC and Users define as a ‘Success’ or ‘Failure’ by Business Process which helps create a view of success that aligns with different perspectives. However, we believe that the solution proposed still does not seem to fully answer the question of TRTs vs RTTs as an appropriate means of reporting on the DCC Service which can be used in the Ofgem	SECAS will discuss the provided feedback with the Proposer and the DCC.

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			Operational Performance Regime and that the DCC and their Service Providers are held accountable for on performance.	

Question 2: Do you agree that the legal text will deliver MP242?

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
Utilita	Large Supplier	Yes	No further comments	N/A
British Gas	Large Supplier	Yes	-	N/A
Ovo Energy	Large Supplier	Yes	-	N/A
Octopus Energy	Large Supplier	Yes, Agree	The Legal text appropriately covers the requirements sent out to deliver MP242. However, we note that the legal text still refers to RTT: “Business Process Performance Indicators set out the percentage of each of the Business Processes described in the table below which is delivered within the applicable Round Trip Time (RTT).” yet success in the attached table does not seem to include reference to time anymore, simply response code and there are also no ‘applicable RTT’ defined in the SEC.	SECAS will discuss the provided feedback with the Proposer and the DCC.

Question 3: Do you agree with the proposed implementation approach?

Question 3				
Respondent	Category	Response	Rationale	SECAS Response
Utilita	Large Supplier	No	While the proposed approach makes sense, we question whether a three-month lead time would give the DCC enough time to undertake the development and testing work required to implement the reports in co-operation with Suppliers.	SECAS will discuss the potential amendment of the implementation approach with the Proposer and DCC.
British Gas	Large Supplier	Yes	-	N/A
Ovo Energy	Large Supplier	Yes	-	N/A
Octopus Energy	Large Supplier	Yes	The current success metric using round trip times is not appropriate for monitoring DCC success. The proposed solution regarding measuring success of 7 key business processes is a much better way of monitoring the overall success of the DCC.	N/A

Question 4: Will there be any impact on your organisation to implement MP242?

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
Utilita	Large Supplier	Yes	As part of this modification, the DCC have requested that Utilita cooperate in the production of these reports. We are happy to participate and provide key expertise	N/A
British Gas	Large Supplier	No	It will just be an additional report we receive. It will be for SEC Ops to manage.	N/A
Ovo Energy	Large Supplier	Yes	Positively. Success reporting will be far more valuable.	N/A
Octopus Energy	Large Supplier	No	As this is a reporting metric for DCC to be measured upon, it will not impact on our organisation to implement this.	N/A

Question 5: Will your organisation incur any costs in implementing MP242?

Question 5				
Respondent	Category	Response	Rationale	SECAS Response
Utilita	Large Supplier	Less than £25k	Only costs associated with providing FTE as part of the report development process. It is currently unclear how much FTE commitment would be required.	N/A
British Gas	Large Supplier	No costs	It will just be an additional report we receive. It will be for SEC Ops to manage.	N/A
Ovo Energy	Large Supplier	No costs	None other than the cost of the modification.	N/A
Octopus Energy	Large Supplier	No	As this is a reporting metric for DCC to be measured upon, it will not cost us anything as an individual supplier to implement this beyond the shared costs to industry.	N/A

Question 6: How long from the point of approval would your organisation need to implement MP242?

Question 6				
Respondent	Category	Response	Rationale	SECAS Response
Utilita	Large Supplier	N/A	There would be no impacts to our systems as part of this modification.	N/A
British Gas	Large Supplier	No time required	It will just be an additional report we receive. It will be for SEC Ops to manage.	N/A
Ovo Energy	Large Supplier	Immediately	-	N/A
Octopus Energy	Large Supplier	No Time	As this is a reporting metric for DCC to be measured upon, it will not require anything from us as a supplier once approved for implementation.	N/A

Question 7: Do you believe that MP242 would better facilitate the General SEC Objectives?

Question 7				
Respondent	Category	Response	Rationale	SECAS Response
Utilita	Large Supplier	Yes	We believe that this modification will better facilitate General SEC Objectives (e) and (g). These reports will allow the identification of areas of operation that are not performing as expected, allowing investigation into the root causes to determine solutions, whilst also allowing innovation to flourish as business processes can now be put under a microscope to determine areas of inefficiency.	N/A
British Gas	Large Supplier	Yes	Definitely General SEC Objectives (b) and (g), and also General SEC Objective (a) over time.	N/A
Ovo Energy	Large Supplier	Yes	A	N/A
Octopus Energy	Large Supplier	Yes	SEC objectives A, B, C, E and G will be better facilitated by the implementation of this proposal by ensuring a good level of service and better ways to measure this. By being able to measure this more accurately it will ensure that the level of service is maintained which supports the provision of smart meter systems and ensures that customers can manage their energy usage.	N/A

Question 8: Do you believe there will be any impacts on or benefits to consumers if MP242 is implemented?

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
Utilita	Large Supplier	Yes	If we can identify processes that are failing we can take steps to correct this, which would have a knock-on impact on consumer experience as the success rate of those processes increases. This will be especially felt in the prepay sector as any issues with vend successes can be identified early and resolved.	N/A
British Gas	Large Supplier	Yes	The reporting covers deliverables that are important to consumers and will have the highest consumer impact. The reporting will enable us to see points of favour, enabling the whole industry to investigate and improve, thus improving the consumer experience of smart.	N/A
Ovo Energy	Large Supplier	Yes	-	N/A
Octopus Energy	Large Supplier	Yes	Whilst not a direct impact of the change in reporting mechanism, we would expect that customers will be provided with a more reliable service as any drop-in service will be more closely measured under the new mechanism	N/A

Question 9: Noting the costs and benefits of this modification, do you believe MP242 should be approved?

Question 9				
Respondent	Category	Response	Rationale	SECAS Response
Utilita	Large Supplier	Yes	We believe that the ability to accurately report on the success rate of the business processes outlined in the modification report is critical and as such, believe that this modification should be approved.	N/A
British Gas	Large Supplier	Yes	And as soon as possible, ideally before April 2024.	N/A
Ovo Energy	Large Supplier	Yes	-	N/A
Octopus Energy	Large Supplier	Yes	We believe that the modification should be approved, however we feel the costs are high considering the impacted areas are the DCC's Data Science and Analytics with no system changes required to implement this. £200k+ seems excessive given the PA states that 'the largest component of the change is the work associated with designing the full business logic associated with each business process.' which seems to be largely driven by time and effort from DCC resources. We also believe that elements of this reporting already exist. This seems to be a relatively minor change in reporting logic which costs £200k+ and does not bode well for any potential reporting changes in the future.	SECAS will discuss the provided feedback with the Proposer and the DCC.

Question 10: Please provide any further comments you may have.

Question 10			
Respondent	Category	Comments	SECAS Response
Utilita	Large Supplier	No further comments	N/A
British Gas	Large Supplier	-	N/A
Ovo Energy	Large Supplier	-	N/A
Octopus Energy	Large Supplier	-	N/A