

F SMART METERING SYSTEM REQUIREMENTS

F1. TECHNICAL SUB-COMMITTEE

Establishment of the Technical Sub-Committee

- F1.1 The Panel shall establish a Sub-Committee in accordance with the requirements of this Section F1, to be known as the “**Technical Architecture and Business Architecture Sub-Committee**”.
- F1.2 Save as expressly set out in this Section F1, the Technical Architecture and Business Architecture Sub-Committee shall be subject to the provisions concerning Sub- Committees set out in Section C6 (Sub-Committees).
- F1.3 Membership of the Technical Architecture and Business Architecture Sub-Committee shall be determined by the Panel:
- (a) having regard to the need to provide an appropriate level of technical and business architecture expertise in the matters that are the subject of the Technical Architecture and Business Architecture Sub-Committee’s duties; and
 - (b) otherwise in accordance with Section C6.7 (Membership).

Duties of the Technical Architecture and Business Architecture Sub-Committee

- F1.4 The Technical Architecture and Business Architecture Sub-Committee shall undertake the following duties on behalf of the Panel:
- (a) to provide the Panel, the Change Sub-Committee, the Change Board and Working Groups with technical and business architecture support and advice in respect of Draft Proposals and Modification Proposals that provide for variations to the Technical Code Specifications (or variations to other parts of this Code that affect the End-to-End Technical Architecture and/or the Business Architecture);
 - (b) to provide the Panel, the Change Sub-Committee, the Change Board and Working Groups with technical and business architecture support and advice in respect of Draft Proposals and Modification Proposals that are identified as likely (if approved) to require changes to the End-to-End Technical Architecture and/or to the Business Architecture;
 - (c) to provide the Authority (on request) with such information as the Authority may request regarding the technical aspects of any Notification (or potential Notification);
 - (d) to provide the Panel with technical and business architecture support and advice in respect of Disputes for which the Panel is required to make a determination, insofar as such Disputes relate to the Technical Code Specifications (or other parts of this Code that affect the End-to-End Technical

Architecture and/or the Business Architecture);

- (e) to review (where directed to do so by the Panel) the effectiveness of the End-to- End Technical Architecture (including so as to evaluate whether the Technical Code Specifications continue to meet the SEC Objectives), and report to the Panel on the outcome of such review (such report to include any recommendations for action that the Technical Architecture and Business Architecture Sub-Committee considers appropriate);
 - (f) to review (where directed to do so by the Panel) the effectiveness of the Business Architecture (including their assessment against the SEC Objectives), in consultation with Parties and Competent Authorities (but without engaging directly with Energy Consumers), and report to the Panel on the outcome of such review (such report to include any recommendations for action that the Technical Architecture and Business Architecture Sub-Committee considers appropriate);
 - (g) to review (where directed to do so by the Panel) the effectiveness of the HAN Requirements (including their assessment against the SEC Objectives), in consultation with Parties and Competent Authorities (but without engaging directly with Energy Consumers), and report to the Authority and the Panel on the outcome of such review;
 - (h) to support the Panel in the technical and business architecture aspects of the annual report which the Panel is required to prepare and publish under Section C2.3(h) (Panel Duties);
 - (i) to develop and thereafter maintain the Technical Architecture Document and the Business Architecture Document, and arrange for their publication on the Website;
 - (j) to provide the Panel with support and advice in respect of any other matter (not expressly referred to in this Section F1.4) which is concerned with the End-to- End Technical Architecture and/or the Business Architecture;
 - (k) (to the extent to which it reasonably considers that it is necessary to do so) to liaise and exchange information with, provide advice to, and seek the advice of the Alt HAN Forum on matters that relate to the End-to-End Technical Architecture and/or the Business Architecture; and
 - (l) to perform any other duties expressly ascribed to the Technical Architecture and Business Architecture Sub-Committee elsewhere in this Code.
- F1.5 In undertaking its duties under Section F1.4(e) to (g), the Technical Architecture and Business Architecture Sub-Committee shall not review the Alt HAN Arrangements but may have regard to any impact of the provision of Alt HAN Services on the End-to- End Technical Architecture and/or the Business Architecture.
- F1.6 The Technical Architecture and Business Architecture Sub-Committee shall establish a process whereby the Code Administrator monitors Draft Proposals and Modification Proposals with a view to identifying (and bringing to the Technical Architecture and Business Architecture Sub-Committee's attention) those proposals that are likely to affect the End-to-End Technical Architecture and/or the Business Architecture. The Code Administrator shall comply with such process.
- F1.7 The Panel shall make each report produced pursuant to Section F1.4 available to the Parties, subject to

any redactions it considers necessary to avoid a risk of Compromise to the DCC Total System, User Systems, RDP Systems and/or Devices.

DCC Obligations

- F1.8 The DCC shall provide all reasonable assistance and information to the Technical Architecture and Business Architecture Sub-Committee in relation to the performance of its duties as it may reasonably request, including by providing the Technical Architecture and Business Architecture Sub-Committee with any requested Solution Architecture Information.

Provision of Information in respect of HAN Requirement Reviews

- F1.9 Each Party shall provide to the Technical Architecture and Business Architecture Sub-Committee all such information as it may reasonably request in relation to its reviews of the HAN Requirements.

F2. CENTRAL PRODUCTS LIST

Central Products List

- F2.1 The Panel shall establish and maintain a list (the "**Central Products List**") of:
- (a) the SMETS2+ Device Models for which the Panel has received all the Assurance Certificates required for the Physical Device Type relevant to that Device Model (known as the Certified Products List); and
 - (b) in the case of SMETS1 Device Models, those Device Models for which the Panel has received all the information required in accordance with the CPL Requirements Document (which does not require any certification of SMETS1 Devices under the CPA or any other assurance scheme).
- F2.2 The Panel shall ensure that the Central Products List identifies the Data required in accordance with the CPL Requirements Document, and that the Central Products List is updated to add and remove Device Models in accordance with the CPL Requirements Document (including as described in Section F2.7A).
- F2.2A Where a Party disagrees with any decision of the Panel to add, remove, not remove, reinstate, or not reinstate a SMETS1 Device Model to or from the Central Products List, that Party may refer the matter to the Authority for its determination, which shall be final and binding for the purposes of this Code.

Background to Assurance Certificates

- F2.2B For SMETS1 Device Models, there are no required Assurance Certificates for any of the Physical Device Types.
- F2.3 The Technical Specification relevant to the Physical Device Type sets out which Physical Device Types require Assurance Certificates from one or more of the following persons (each being an "**Assurance Certification Body**"):

- (a) the ZigBee Alliance;
- (b) the DLMS User Association; and
- (c) NCSC.

F2.4 The following Assurance Certification Bodies issue the following certificates in respect of Device Models of the relevant Physical Device Types (each being, as further described in the applicable Technical Specification, an “**Assurance Certificate**”):

- (a) the ZigBee Alliance issues certificates which contain the ZigBee certified logo and interoperability icons;
- (b) the DLMS User Association issues certificates which include the conformance tested service mark (“**DLMS Certificates**”); and
- (c) NCSC issues commercial product assurance scheme certificates (“**CPA Certificates**”).

F2.5 An Assurance Certificate will not be valid unless it expressly identifies the Device Model(s) and the relevant Physical Device Type to which it applies. An Assurance Certificate will not be valid if it specifies an expiry date that falls more than 6 years after its issue.

Expiry of CPA Certificates

F2.6 As CPA Certificates will contain an expiry date, the following Parties shall ensure that a replacement CPA Certificate is issued in respect of Device Models for the following Physical Device Types before the expiry of such CPA Certificate (to the extent Device Models of the relevant Physical Device Type require CPA Certificates in accordance with the applicable Technical Specification):

- (a) the DCC for Communications Hubs; and
- (b) the Import Supplier and/or Gas Supplier (as applicable) for Device Models of all other Physical Device Types.

F2.7 The Panel shall notify the Parties on or around the dates occurring 12 and 6 months prior to the date on which the CPA Certificate for any Device Model is due to expire. The Panel shall also provide to the Parties any notice concerning CPA Certificates which the NCSC asks the Panel to provide to the Parties.

Consequence of Expiry, Withdrawal or Cancellation of Assurance Certificates

F2.7A Where:

- (a) a CPA Certificate for a Device Model expires or is withdrawn or cancelled by the NCSC, then the Security Sub-Committee shall determine whether to remove that Device Model from the Central Products List in accordance with the CPL Requirements Document, which may provide for a CPA Certificate Remedial Plan to be imposed;
- (b) any other type of Assurance Certificate for a Device Model is withdrawn or cancelled by the Assurance Certification Body that issued the certificate, then the Panel shall remove that Device Model from the Central Products List.

F2.7B Where a Party disagrees with any decision of the Security Sub-Committee made in accordance with the CPL Requirements Document:

- (a) to remove or not remove a Device Model from the Central Products List;
- (b) to not approve the Party's CPA Certificate Remedial Plan (where the Security Sub-Committee has determined that a CPA Certificate Remedial Plan is to be imposed on the Party),

that Party may refer the matter to the Authority for its determination, which shall be final and binding for the purposes of this Code.

Publication and Use by the DCC

F2.8 Subject to the requirements of the CPL Requirements Document, the Panel shall (within one Working Day after being required to add or remove Device Models to or from the Central Products List in accordance with the CPL Requirements Document):

- (a) provide the updated Central Products List to the DCC (by way of an extract containing such subset of the information contained within the Central Products List as the DCC reasonably requires from time to time);
- (b) publish a copy of the updated Central Products List on the Website; and

- (c) notify the Parties that the Central Products List has been updated.

F2.9 Subject to the requirements of the CPL Requirements Document, the DCC shall, from time to time, use and rely upon the Central Products List most recently received by the DCC from the Panel at that time, provided that the DCC shall be allowed up to 24 hours from receipt to make any modifications to the Smart Metering Inventory that are necessary to reflect the updated Central Products List.

Deployed Products List

F2.10 The DCC shall create, keep reasonably up-to-date and provide to the Panel (and the Panel shall publish on the Website) a list (the "**Deployed Products List**") of all the combinations of different Device Models that comprise a Smart Metering System (together with Associated Type 2 Devices) that exist from time to time (to the extent recorded by the Smart Metering Inventory).

SMETS1 Lists

F2.10A The DCC shall create, keep up-to-date and provide to the Panel (and the Panel shall publish on the Website) lists of:

- (a) each combination of SMETS1 Device Models and communication services provider in relation to which the DCC has demonstrated through testing (which may include testing of a different combination that the DCC considers to be substantively equivalent) that it is able to successfully process SMETS1 Service Requests and relevant SMETS1 Alerts (the "**SMETS1 Eligible Product Combinations**"), including the date on which each entry was first added to the list; and
- (b) each combination of SMETS1 Device Models and communication services provider) in relation to which the DCC is at that time:
 - (i) considering whether testing or development is required to demonstrate the capability; or
 - (ii) developing and/or testing the capability,

to successfully process SMETS1 Service Requests and relevant SMETS1 Alerts (the "**SMETS1 Pending Product Combinations**"), provided that the DCC shall not add a Device Model combination to the SMETS1 Pending Product Combinations where the relevant Testing Participant has indicated pursuant to clause 9 (SMETS1 Pending Product Combinations Tests) of the Enduring Testing Approach Document that such information should be treated as confidential.

F2.10B The obligation of the DCC under Section F2.10A(a) shall only apply once the DCC is first permitted

under the Transition and Migration Approach Document to add a combination of Device Models to the SMETS1 Eligible Product Combinations.

Technical Specification Compatibility

F2.11 The Panel shall create, keep reasonably up-to-date and publish on the Website a matrix specifying:

- (a) which Versions of each Technical Specification are compatible with which Versions of the other Technical Specification; and
- (b) which Versions of each part(s) of the SMETS are compatible with which Versions of each other part(s) of the SMETS.

F2.12 For the purposes of Section F2.11:

- (a) 'compatible' means:
 - (i) in respect of a Version of one Technical Specification, that Devices or apparatus which comply with that Version are designed to inter-operate with Devices or apparatus that comply with the specified Version of the other Technical Specification; and
 - (ii) in respect of a Version of one part(s) of the SMETS, that Devices or apparatus which comply with that Version are designed to inter-operate with Devices or apparatus that comply with the specified Version of each of the other part(s) of the SMETS;
- (b) each reference to a Version of a Technical Specification shall be read as being to that Version taken together with any relevant Version of the GB Companion Specification (as identified in the TS Applicability Tables), so that if there is more than one relevant Version of the GB Companion Specification for any Version of a Technical Specification, the matrix shall make separate provision for each of them;
- (c) a 'part(s) of the SMETS' means each of the following:
 - (i) the part(s) identified in the SMETS as applying to 'Electricity Smart Metering Equipment';
 - (ii) the part(s) identified in the SMETS as applying to 'Gas Smart Metering Equipment';

- (iii) the PPMID Technical Specification;
 - (iv) the HCALCS Technical Specification; and
 - (v) the IHD Technical Specification; and
- (d) the matrix need not specify:
- (i) which Versions of the part(s) of the SMETS identified as applying to 'Electricity Smart Metering Equipment' are compatible with which Versions of the part(s) of the SMETS identified as applying to 'Gas Smart Metering Equipment'; and
 - (ii) which Versions of the part(s) of the SMETS identified as applying to 'Gas Smart Metering Equipment' are compatible with which Versions of:
 - (A) the part(s) of the SMETS identified as applying to 'Electricity Smart Metering Equipment'; or
 - (B) the HCALCS Technical Specification.

F2.13 The Panel shall, as soon as reasonably practicable after it makes a change to such matrix, notify all the Parties that a change has been made.

Firmware Information Repository

F2.14 The Panel shall establish and maintain a list of firmware releases, updates, and corresponding Manufacturer contact details (the “**Firmware Information Repository**”).

F2.15 The Panel shall ensure that the Firmware Information Repository contains a minimum of three fields:

- (a) A number which uniquely identifies a record on the Central Products List, which is a mandatory field;
 - (b) Manufacturer contact details, which is a mandatory field, to include email address, telephone number and business address; and
 - (c) A free text field for release notes that Manufacturers can record against, which is a mandatory field for completion but the content is at the discretion of the Manufacturers.
- F2.16 The Firmware Information Repository will be updated alongside the Central Products List, with the number which uniquely identifies a record on the Central Products List providing a cross reference.
- F2.17 The Party or any other person submitting Device details for addition to the Central Products List shall also supply the details listed in F2.15 for the same Device.

F3. PANEL DISPUTE RESOLUTION ROLE

- F3.1 Where a Party considers that a device which is required under the Energy Licences to meet the requirements of the Technical Specifications does not meet the applicable requirements of the Technical Specifications, then that Party may refer the matter to the Panel for its determination. For the purposes of this Section F3, the relevant licence requirements are Condition 39 of the Electricity Supply Licences, Condition 33 of the Gas Supply Licences, and Condition 17, Part E of the DCC Licence.
- F3.2 The devices to which this Section F3 applies need not form part of Enrolled Smart Metering Systems.
- F3.3 The DCC shall retain evidence to demonstrate that the Communications Hubs (as defined in the DCC Licence) meet the DCC's obligations under the DCC Licence to ensure compliance with the CHTS. The DCC shall make that evidence available to the Panel or the Authority on request.
- F3.4 Save to the extent the DCC is responsible under Section F3.3, each Supplier Party shall retain evidence to demonstrate that the Devices for which it is responsible under the Energy Licences for ensuring Technical Specification compliance do so comply. Each Supplier Party shall make that evidence available to the Panel or the Authority on request.
- F3.5 Where the Panel determines that any device or devices that were intended to meet the requirements of a Technical Specification do not meet the applicable requirements of the Technical Specification, the Panel may (to the extent and at such time as the Panel sees fit, having regard to all the circumstances and any representations made by any Competent Authority or any Party) require the relevant Supplier Party or the DCC (as applicable under Section F3.3 or F3.4) to give effect to a reasonable remedial plan designed to remedy and/or mitigate the effect of such non-compliance within a reasonable timescale.
- F3.6 Where a Party disagrees with any decision of the Panel made pursuant to Section F3.5, that Party may refer the matter to the Authority for its determination, which shall be final and binding for the purposes of this Code.

- F3.7 Subject to any determination by the Authority pursuant to Section F3.6, where the Panel requires a Supplier Party to give effect to a remedial plan in accordance with Section F3.5 and where that Supplier Party fails in a material respect to give effect to that remedial plan, then such failure shall constitute an Event of Default for the purposes of Section M8 (Suspension, Expulsion and Withdrawal).
- F3.8 For the avoidance of doubt, no decision of the Panel pursuant to this Section F3 is intended to fetter the discretion of the Authority to enforce any breach of any Energy Licence.

F4. OPERATIONAL FUNCTIONALITY, INTEROPERABILITY AND ACCESS

Operational Functionality

- F4.1 The Responsible Supplier for each Enrolled Smart Metering System shall ensure that the Smart Metering System (excluding the Communications Hub Function) is not configured in a way that restricts the minimum functions that the Smart Metering System is required to be capable of providing in order that the DCC can provide the Services in accordance with this Code.
- F4.1A The Lead Supplier for a SMETS1 CH shall take all reasonable steps to ensure that the SMETS1 CHF forming part of that SMETS1 CH is not configured in a way that restricts the minimum functions that any Smart Metering System of which the SMETS1 CHF forms part is required to be capable of providing in order that the DCC can provide the Services in accordance with this Code.
- F4.1B Subject to Section F4.1C, where the Lead Supplier for a SMETS1 CH upgrades the firmware for or replaces the SMETS1 CHF and/or SMETS1 GPF comprising that SMETS1 CH, then the Lead Supplier shall take reasonable steps to ensure that the upgraded/replacement SMETS1 CHF and/or SMETS1 GPF is compatible with any and all other Devices that formed part of a Smart Metering System of which the SMETS1 CHF and/or SMETS1 GPF that have been upgraded/replaced also formed part. For the purposes of this Section F4.1B, 'compatible' means that the Devices are of Device Models identified as a combination of Device Models in the then current SMETS1 Eligible Product Combinations.
- F4.1C The obligation under Section F4.1B is subject to the Lead Supplier's obligations under its Energy Supply Licence with respect to the installation and maintenance of Smart Metering Systems (as defined in its Energy Supply Licence).

Interoperability of SMETS2+ Communications Hubs with DCC Systems

- F4.2 Pursuant to the DCC Licence, the DCC has certain obligations to ensure that SMETS2+ Communications Hubs are interoperable with the DCC Systems.
- F4.3 Save to the extent the DCC is responsible as described in Section F4.2, the Responsible Supplier for each Enrolled Smart Metering System (but not SMETS1 SMSs) shall ensure that all the Devices forming part of that Smart Metering System are interoperable with the DCC Total System to the extent necessary to enable those Devices to respond to Commands received from or via the DCC in accordance with the

requirements defined in the GB Companion Specification.

F4.4 The DCC and each Supplier Party shall:

- (a) ensure that testing has been undertaken to demonstrate its compliance with the obligations set out in or referred to in Section F4.2 or F4.3 (as applicable); and
- (b) retain evidence of such testing, and make such evidence available to the Panel and the Authority on request.

Remote Access by DCC

- F4.5** Subject to Section F4.5A, the Responsible Supplier for each Enrolled Smart Metering System shall ensure that the DCC is allowed such remote access to the Smart Metering System as is reasonably necessary to allow the DCC to provide the Services and any other services permitted by the DCC Licence in respect of that Smart Metering System (including the right to send communications to, to interrogate, and to receive communications and obtain Data from that Smart Metering System).
- F4.5A** In the case of SMETS1 CHs, the Supplier Party or Supplier Parties which own or are renting the SMETS1 CH (which may or may not be the Responsible Supplier) shall be obliged to comply with Section F4.5 in respect of the SMETS1 CH.

Physical Access to Devices by Parties

- F4.6** Where a Party is expressly required or permitted by this Code to interfere with a SMETS2+ Communications Hub, then the DCC hereby consents to the Party interfering with that Communications Hub in that way (and shall ensure that all persons with a legal interest in the Communications Hub have also so consented).
- F4.7** Where a User is expressly required by this Code to interfere with a Device forming part of a Smart Metering System (other than the Devices comprising a SMETS2+ Communications Hub), then the Party which owns that Device (or has made arrangements with its owner for its provision) hereby consents to the User interfering with that Device in that way (and shall ensure that all persons with a legal interest in that Device have also so consented).

Communications with Communications Hubs by DCC over the SM WAN

- F4.8** Except where expressly permitted or obliged by this Code, the DCC shall ensure that the only Devices with which it communicates over the SM WAN are those listed in the Smart Metering Inventory. Where a Communications Hub Function or Gas Proxy Function has an SMI Status of 'suspended', the DCC shall only initiate a communication with that Device (where it is the target device) if following the successful execution of such communication the DCC can reasonably expect that the associated Communication Hub's Device Model will become one that is listed on the Central Product List.

- F4.9 Where the DCC receives an Alert from a Communications Hub Function indicating that no power supply has been available to that Communications Hub Function for a period of at least three minutes, the DCC shall send a copy of the Alert to the Import Supplier (if any) and Electricity Distributor (if any) for that Communications Hub Function.

SMETS2+ Communications Hub Procurement

- F4.10 The DCC shall publish on the DCC Website the physical dimensions of the Communications Hub Device Models that are made available from time to time pursuant to the Communications Hub Services.

- F4.11 Within the relevant period established in accordance with this Section F4.11, the DCC shall consult the other Parties regarding the physical dimensions of the Communications Hub Device Models first made available pursuant to the Communications Hub Services (and shall give due consideration to any consultation responses received when considering the Communications Hubs to be made available in the future). For the purposes of this Section F4.11, the relevant period is the period of 18 months (or such shorter period as the Panel may determine) after the date from which Smart Meters are capable of being Commissioned pursuant to Section H5 (Smart Metering Inventory and Enrolment Services).

- F4.12 Prior to committing to the procurement of any Communications Hubs comprising:

- (a) HAN Variants and/or WAN Variants that have not previously been made available pursuant to the Communications Hub Services; and/or
- (b) Communications Hubs with physical dimensions that differ from the physical dimensions of any Communications Hubs that are (at the time of such proposed procurement) made available pursuant to the Communications Hub Services,

the DCC shall consult the other Parties regarding the physical dimensions of the Communications Hubs to be procured (and shall give due consideration to any consultation responses received).

- F4.13 Prior to committing to any arrangements (or any changes to arrangements) for the financing of any Communications Hub procurement, the DCC shall, to the extent such arrangements (or changes) might reasonably be expected to have a material effect on one or more of the other Parties, consult with the other Parties regarding the same. Such consultation shall include the DCC's explanation of how the arrangements (or changes) are consistent with the requirements of the DCC Licence and this Code.
- F4.14 In respect of each Dual Band Communications Hub that the DCC delivers pursuant to Section F6 (Delivery and Acceptance of Communications Hubs), the DCC shall ensure that the data items stored on the Communications Hub are (at the time of delivery) configured in accordance with the requirements of the DCC Dual Band Communications Hub Configuration Table.
- F4.15 In respect of each Smart Metering System which includes a Dual Band Communications Hub, the Lead Supplier from time to time shall ensure that the data items stored on the Communications Hub are (at

all times) configured in accordance with the requirements of the Lead Party Dual Band Communications Hub Configuration Table.

Preventing Unauthorised Access to Data

F4.16 The DCC and each other Party that is responsible from time to time for the risk of loss or destruction of or damage to a SMETS2+ Communications Hub shall take reasonable steps to ensure that Personal Data held on that Communications Hub is protected from unauthorised access during such period of responsibility.

F4.17 The Lead Supplier from time to time for each SMETS1 CH shall take reasonable steps to ensure that Personal Data held on that SMETS1 CH is protected from unauthorised access.

Annex to Section F4 - Dual Band Communications Hub Configuration Tables

Each data item in the first column is to be configured in accordance with third column.

DCC Dual Band Communications Hub Configuration Table

Data item	Reference	Default Value
Page 28 Mask	GBCS v2.0 Table 10.6.2.3	channels 0 to 26
Page 29 Mask	GBCS v2.0 Table 10.6.2.3	channels 27 to 34
Page 30 Mask	GBCS v2.0 Table 10.6.2.3	channels 35 to 48
Page 31 Mask	GBCS v2.0 Table 10.6.2.3	no channels to be used
Normal-Limited Duty Cycle Threshold	GBCS v2.0 Table 10.6.2.3	2.0%
Limited-Critical Duty Cycle Threshold	GBCS v2.0 Table 10.6.2.3	2.4%
Maximum Sub GHz Channel Changes Per Week	GBCS v2.0 Table 10.6.2.3	2 per week
GSME Curfew	GBCS v2.0 Table 10.6.2.3	5 hours
Channel Quieter Threshold	GBCS v2.0 Table 10.6.2.3	3 dB
Channel Noisier Threshold	GBCS v2.0 Table 10.6.2.3	3 dB
Non GSME Poor Communications Percentage Threshold	GBCS v2.0 Table 10.6.2.3	20%
Non GSME Poor Communications	GBCS v2.0 Table 10.6.2.3	50 periods

Thirty Minute Periods Measurement Periods		
Local CH Noise Measurement Period	GBCS v2.0 Table 10.6.2.3	2 hours
Local CH Failure Percentage	GBCS v2.0 Table 10.6.2.3	10%
Local CH Retry Percentage	GBCS v2.0 Table 10.6.2.3	30%

Lead Party Dual Band Communications Hub Configuration Table

Data item	Reference	Default Value
Page 28 Mask	GBCS v2.0 Table 10.6.2.3	channels 0 to 26
Page 29 Mask	GBCS v2.0 Table 10.6.2.3	channels 27 to 34
Page 30 Mask	GBCS v2.0 Table 10.6.2.3	channels 35 to 48
Page 31 Mask	GBCS v2.0 Table 10.6.2.3	no channels to be used
Normal-Limited Duty Cycle Threshold	GBCS v2.0 Table 10.6.2.3	2.0%
Limited-Critical Duty Cycle Threshold	GBCS v2.0 Table 10.6.2.3	2.4%
Maximum Sub GHz Channel Changes Per Week	GBCS v2.0 Table 10.6.2.3	2 per week
GSME Curfew	GBCS v2.0 Table 10.6.2.3	5 hours
Channel Quieter Threshold	GBCS v2.0 Table 10.6.2.3	3 dB
Channel Noisier Threshold	GBCS v2.0 Table 10.6.2.3	3 dB
Non GSME Poor Communications Percentage Threshold	GBCS v2.0 Table 10.6.2.3	20%
Non GSME Poor Communications Thirty Minute Periods Measurement Periods	GBCS v2.0 Table 10.6.2.3	50 periods
Local CH Noise Measurement Period	GBCS v2.0 Table 10.6.2.3	2 hours

Local CH Failure Percentage	GBCS v2.0 Table 10.6.2.3	10%
Local CH Retry Percentage	GBCS v2.0 Table 10.6.2.3	30%

F5. SMETS2+ COMMUNICATIONS HUB FORECASTS & ORDERS

All references to "Communications Hubs" in this Section F5 are references to "SMETS2+ Communications Hubs".

Availability of CH Variants

F5.1 The DCC shall ensure that Communications Hub Device Models are made available to be ordered by Parties under this Section F5 such that the Parties can order Communications Hubs that provide for each and every combination of HAN Variant and WAN Variant; save that:

- (a) this Section F5 does not apply to Special Installation Mesh Communications Hubs (and all references in this Section F5 to Communications Hubs shall be deemed to exclude Special Installation Mesh Communications Hubs); and
- (b) the DCC need not provide a 'Variant 450 Communications Hub' (as defined in the CH Installation and Maintenance Support Materials) that operates only with a HAN frequency within the 2400 – 2483.5 MHz harmonised frequency band (as further described in the CHTS).

Communications Hub Forecasts

F5.2 For the purposes of this Section F5, a “**Communications Hub Forecast**” means an estimate of the future requirements of a Party for the delivery to it of Communications Hubs by the DCC, which:

- (a) is submitted by that Party to the DCC;
- (b) covers the period identified in Section F5.3; and
- (c) complies with the requirements of Section F5.4.

F5.3 Each Communications Hub Forecast shall cover the period of 24 months commencing with the sixth month after the end of the month in which the forecast is submitted to the DCC.

F5.4 Each Communications Hub Forecast shall:

- (a) comprise a forecast of the number of Communications Hubs that the Party requires to be delivered to it in each month of the period to which it relates;
- (b) set out that forecast for each such month by reference to:
 - (i) the aggregate number of Communications Hubs to be delivered;
 - (ii) the number of Communications Hubs to be delivered in respect of each Region; and
 - (iii) (for the first 10 months of the period to which the forecast relates) the number of Communications Hubs of each HAN Variant to be delivered in respect of each Region; and
- (c) include such further information and be provided in such form as may be set out in the CH Handover Support Materials at the time of its submission.

Parties: Duty to Submit Communications Hub Forecasts

F5.5 Each Supplier Party, and each other Party that intends to order Communications Hubs in the future, shall:

- (a) submit a Communications Hub Forecast to the DCC by no later than the 5th Working Day prior to the last Working Day of each month;
- (b) submit each Communications Hub Forecast via the CH Ordering System;
- (c) take reasonable steps to ensure that the information contained in each Communications Hub Forecast is accurate and up to date; and
- (d) ensure that it submits a forecast that will enable it to submit a Communications Hub Order that meets the requirements of Section F5.12.

F5.6 A Party that has not submitted a Communications Hub Forecast for a Region during a month in accordance with this Section F5 shall be deemed to have submitted a forecast which specified:

- (a) for the first 23 months of the period covered by the forecast, the same number of Communications Hubs as the Party forecast for the corresponding month in its previous forecast;
- (b) for the first 9 months of the period covered by the forecast, the same number of each HAN Variant as the Party forecast for the corresponding month in its previous forecast;
- (c) for the 10th month of the period covered by the forecast, the number of each HAN Variant that results from applying the same proportions of each HAN Variant as applies to the 9th month of the period pursuant to paragraph (b) above; and
- (d) for the 24th month of the period covered by the forecast, zero Communications Hubs.

Communications Hub Orders

F5.7 For the purposes of this Section F5, a “**Communications Hub Order**” means an order by a Party for the delivery to it of Communications Hubs and/or Communications Hub Auxiliary Equipment by the DCC, which:

- (a) is submitted by that Party to the DCC; and
- (b) satisfies the requirements of Section F5.8.

F5.8 Each Communications Hub Order shall (subject to any further requirements set out in the CH Handover Support Materials):

- (a) relate to a single Region, and identify the Region to which it relates;
- (b) relate to the delivery of Communications Hubs and/or Communications Hub Auxiliary Equipment in the 5th month after the end of the month in which that Communications Hub Order is submitted to the DCC (the “**Delivery Month**”);
- (c) specify the addresses of the location or locations (each a “**Delivery Location**”) at which the delivery of the Communications Hubs and/or Communications Hub Auxiliary Equipment is required, each of which locations must be in Great Britain but need not be in the Region to which the relevant Communications Hub Order relates;
- (d) specify, in accordance with Section F5.12, the number (if any) of Communications Hubs of each Device Model to be delivered to each Delivery Location (in each case, a “**Delivery Quantity**”);

- (e) specify the preferred date within the Delivery Month on which the delivery to each Delivery Location is required (provided that the actual delivery date within the Delivery Month for each Delivery Location (in each case, a “**Delivery Date**”) shall be determined in accordance with the CH Handover Support Materials);
- (f) specify the number and type of the Communications Hub Auxiliary Equipment (if any) to be delivered to each Delivery Location; and
- (g) include such further information and be provided in such form as may be set out in the CH Handover Support Materials at the time of its submission.

F5.9 In respect of each Communications Hub Order submitted in respect of a Region, the Communications Hubs and/or Communications Hub Auxiliary Equipment to be delivered to each Delivery Location on each Delivery Date shall be a “**Consignment**”.

F5.10 In order for a Communications Hub Order to be a compliant order, the order must comply with the requirements of this Section F5.10. A Party is not obliged to submit a compliant order, but a non-compliant order may be amended by the DCC in accordance with Section F5.17. The requirements of this Section F5.10 are, for each Communications Hub Order submitted by a Party in respect of a Region, that the aggregate (for all Consignments) of the Delivery Quantities of each HAN Variant for the Delivery Month must be:

- (a) greater than or equal to the higher of:
 - (i) 50% of the number of Communications Hubs of that HAN Variant forecast for that Delivery Month and Region in the Communications Hub Forecast submitted by that Party in the 10th month prior to the start of the Delivery Month; and
 - (ii) 80% of the number of Communications Hubs of that HAN Variant forecast for that Delivery Month and Region in the Communications Hub Forecast submitted by the Party in the 7th month prior to the start of the Delivery Month; and
- (b) less than or equal to the lower of:
 - (i) 120% of the number of Communications Hubs of that HAN Variant forecast for that Delivery Month and Region in the Communications Hub Forecast submitted by that Party in the 7th month prior to the start of the Delivery Month; and
 - (ii) 150% of the number of Communications Hubs of that HAN Variant forecast for that Delivery Month and Region in the Communications Hub Forecast submitted by that Party in the 10th month prior to the start of the Delivery Month.

F5.11 For the purposes of Section F5.10, in calculating, by reference to earlier forecast numbers:

- (a) the minimum aggregate of the Delivery Quantities, any fractions of a number shall be rounded down; and
- (b) the maximum aggregate of the Delivery Quantities, any fractions of a number shall be rounded up.

F5.12 For each Party's Communications Hub Order relating to a Region, the aggregate of the Delivery Quantities (for all Device Models taken together) that may be specified for each Consignment may not (unless such number is zero) be less than the minimum delivery quantity set out in the CH Handover Support Materials at the time at which the relevant Communications Hub Order is submitted.

Parties: Rights and Duties in relation to Communications Hub Orders

F5.13 Each Party other than the DCC:

- (a) may submit one Communications Hub Order in relation to each Region in any month;
- (b) shall submit a Communications Hub Order in relation to a Region in a month if the aggregate of the Delivery Quantities for one or more Device Models required for a compliant order in accordance with Section F5.10 is greater than zero; and
- (c) where it fails to submit an order where it is required to do so in accordance with Section F5.13(b), shall be deemed to have submitted a Communications Hub Order for a Delivery Quantity of Communications Hubs of each Device Model equal to the minimum aggregate Delivery Quantity required in respect of that Device Model for a compliant order in accordance with Section F5.10 (and the remaining details of such deemed order shall be determined by the DCC in accordance with the CH Handover Support Materials).

F5.14 Each Party shall ensure that any Communications Hub Order which it elects or is required to submit in any month is submitted by no later than the 5th Working Day prior to the last Working Day of that month.

F5.15 Each Party shall submit its Communications Hub Orders via the CH Ordering System.

DCC: Duties in relation to Communications Hub Orders

F5.16 Where the DCC receives a Communications Hub Order from a Party via the CH Ordering System, the DCC shall:

- (a) promptly acknowledge receipt of that order; and
- (b) within five Working Days of its receipt of the order, notify the Party either that:
 - (i) the order satisfies the requirements of Section F5.8, is a compliant order in accordance with Section F5.10 and was submitted in accordance with Section F5.14 (and is therefore accepted); or
 - (ii) the order does not satisfy some or all of the conditions in (i) above (and is therefore subject to Section F5.17).

F5.17 Where this Section F5.17 applies in respect of a Party's Communications Hub Order, the DCC shall (having regard to the nature, extent and effect of the Party's breach of this Section F5 and/or of the order's non-compliance under Section F5.10, and having regard to the requirements of the DCC Licence) take all reasonable steps to accommodate the order (in whole or part, or subject to amendments). The DCC shall, by the end of the month in which such order is received by the DCC, notify the Party (in each case giving reasons for its decision) that:

- (a) the order is accepted in its entirety;
- (b) the order is accepted in part or subject to amendment; or
- (c) the order is rejected.

DCC Policy

F5.18 The DCC shall develop and make available via the DCC Website a policy describing the circumstances in which it will accept (in whole or part, or subject to amendments) or reject Communications Hub Orders as described in Section F5.17.

Non-Standard Cancellation of Consignments

F5.19 Each Party that has had a Communications Hub Order accepted by the DCC may cancel one or more of the Consignments arising from that Communications Hub Order; provided that the Party must notify the DCC of such cancellation at least 48 hours in advance of the Delivery Date for the Consignment. A Party which cancels one or more Consignments in accordance with this Section F5.19 shall be liable to reimburse the DCC for all reasonable costs and expenses incurred by the DCC as a result of such cancellation. The DCC shall notify the Party of such costs and expenses as soon as reasonably practicable after notice of the cancellation is given. Such compensation shall be included in the next Invoice to be produced by the DCC following its calculation. The DCC shall, where requested not less

than 10 Working Days in advance of the Delivery Date, provide a non-binding estimate of the costs and expenses it is likely to incur in the event that a Party opts to cancel a Consignment (such estimate to be provided not less than 5 Working Days in advance of the Delivery Date). The DCC shall take all reasonable steps to ensure the estimate is accurate.

CH Ordering System

- F5.20 Subject to Section F5.23, the DCC shall make one or more systems (the **CH Ordering System**) available to other Parties, which Parties can access remotely (via such means, and subject to any security requirements, as are set out in the CH Support Materials).
- F5.21 The DCC shall ensure that the CH Ordering System is available in advance of the time from which other Parties are obliged to submit Data via the CH Ordering System, and at all times thereafter (subject to Planned Maintenance undertaken in accordance with Section H8.3).
- F5.22 The DCC shall ensure that the CH Ordering System allows each Party to:
- (a) submit details of its forecasts, orders and returns of Communications Hubs and/or Communications Hub Auxiliary Equipment, as required in accordance with this Section F5, Sections F6 (Delivery and Acceptance of Communications Hubs) and F8 (Removal and Return of Communications Hub), and the CH Support Materials;
 - (b) view Data regarding the status of such submissions (but only its own submissions), and (where relevant) receive responses from the DCC regarding such submissions; and
 - (c) view the SM WAN Coverage Database.

CH Order Management System Accounts

- F5.23 The DCC may, as further described in the CH Support Materials:
- (a) limit the number of accounts via which each Party is able to access the CH Order Management System without paying any additional Charges; and
 - (b) allow each Party additional accounts via which it is able to access the CH Order Management System, subject to such Party agreeing to pay the applicable Charges.

F6. DELIVERY AND ACCEPTANCE OF SMETS2+ COMMUNICATIONS HUBS

All references to "Communications Hubs" in this Section F6 are references to "SMETS2+ Communications Hubs".

Delivery

- F6.1 The DCC shall ensure that the applicable numbers of Communications Hub Products are delivered in accordance with Valid Communications Hubs Orders to the relevant Delivery Location on the relevant Delivery Date during the relevant Delivery Window.
- F6.2 The DCC shall ensure that the Communications Hub Products are delivered in accordance with the delivery requirements set out in the CH Handover Support Materials.
- F6.3 The Party assigned responsibility for doing so under the CH Handover Support Materials shall ensure that the Communications Hub Products are unloaded from the delivery vehicle at the Delivery Location in accordance with Good Industry Practice and the CH Handover Support Materials.
- F6.4 Delivery of Communications Hub Products pursuant to this Code shall occur on removal of the Communications Hub Products from the delivery vehicle at the Delivery Location (subject to any additional requirements in the CH Handover Support Materials).
- F6.5 Risk of loss or destruction of or damage to the Communications Hub Products shall transfer to the Party which submitted the Communications Hub Order on commencement of their unloading at the Delivery Location (where not unloaded by the DCC) or on completion of their unloading at the Delivery Location (where unloaded by the DCC).
- F6.6 Notwithstanding delivery, legal and beneficial ownership of the Communications Hub Products shall at all times (for the purposes of this Code) remain vested in the DCC, subject only to Section F7.10 (Ownership of and Responsibility for Communications Hub Auxiliary Equipment).

Confirmation of Delivery

- F6.7 The Party which submitted the Valid Communications Hub Order shall confirm whether or not a delivery of Communications Hub Products has been made in compliance with the order within five days after the applicable Delivery Date (such confirmation to be submitted in accordance with and contain the information specified in the CH Handover Support Materials and via the CH Ordering System).
- F6.8 Where a Party fails to submit a confirmation in accordance with Section F6.7, the Party shall be deemed to have confirmed that a delivery of Communications Hub Products has been made in compliance with the relevant order.
- F6.9 The only grounds for non-compliance under Section F6.7 are that:
- (a) no delivery was made to the relevant Delivery Location on the relevant Delivery Date, or the delivery was made but contained fewer Communications Hub Products of the applicable Device Model or type than the DCC was obliged to deliver;
 - (b) the delivery contained more Communications Hub Products of the applicable Device Model or type than the DCC was obliged to deliver to the relevant Delivery Location on the relevant Delivery Date;
 - (c) the delivered Communications Hub Products are (or reasonably appear on a visual inspection to be) damaged or have been (or reasonably appear on a visual inspection to have been) tampered with

(and such damage or tampering occurred prior to their delivery to the Party as described in Section F6.4); and/or

- (d) the Party is otherwise entitled to reject the Communications Hub Products in accordance with the CH Handover Support Materials.

Rejected Communications Hub Products

- F6.10 Where a Party notifies the DCC under Section F6.7 that a delivery is non-compliant in accordance with Sections F6.9(b), (c) and/or (d), the Party thereby rejects the Communications Hub Products in question.
- F6.11 Where Section F6.10 applies, the Party to which the rejected Communications Hub Products were delivered shall make those Communications Hub Products available for collection by the DCC in accordance with the CH Handover Support Materials.
- F6.12 The Party assigned responsibility for doing so under the CH Handover Support Materials shall ensure that the rejected Communications Hub Products are loaded on to the DCC's vehicle in accordance with Good Industry Practice and the CH Handover Support Materials. Risk of loss or destruction of or damage to such Communications Hub Products shall transfer to the DCC on commencement of such loading (where loaded by the DCC) or on completion of such loading (where not loaded by the DCC).

Replacement Communications Hub Products

- F6.13 Where a Party notifies the DCC under Section F6.7 that a delivery is non-compliant in accordance with Sections F6.9(a), (c) and/or (d), the DCC shall ensure that replacement Communications Hub Products of the applicable Device Model or type and in the number necessary to make up the shortfall are delivered to the relevant Delivery Location as soon as reasonably practicable thereafter.
- F6.14 Where Section F6.13 applies, the DCC shall (via the CH Ordering System) notify the Party of the dates on which the DCC is able to deliver such replacement Communications Hub Products, and this Section F6 shall apply as if:
 - (a) the replacement Communications Hub Products to be delivered pursuant to this Section F6.14 were the subject of a Valid Communications Hub Order; and
 - (b) the date selected by the Party, out of the dates so notified by the DCC, was the Delivery Date for that order.

Access to Delivery Location

- F6.15 The Party which submitted the Communications Hub Order shall ensure that each of the DCC and its sub-contractors and its and their agents is allowed access to the Delivery Location for the purposes of

exercising the DCC's rights and performing the DCC's obligations under this Section F6.

- F6.16 The DCC shall ensure that each person that accesses a Delivery Location pursuant to Section F6.15 shall do so in compliance with Good Industry Practice and the site rules and reasonable instructions of the relevant Party (or its representatives).

Non-Standard Delivery Options

- F6.17 Each Party which submits a Communications Hub Order may specify non-standard delivery instructions where and to the extent provided for in the CH Handover Support Materials. Subject to such Party agreeing to pay any applicable Charges, the DCC shall comply with such delivery instructions.

Failure to Accept Delivery

- F6.18 Where the Party which submitted a Valid Communications Hub Order breaches its obligations under this Section F6 and/or the CH Handover Support Materials and as a result the DCC is not able to deliver the Communications Hub Products in accordance with this Code, that Party shall be liable to reimburse the DCC for all reasonable costs and expenses incurred by the DCC as a result. The DCC shall notify the Party of such costs and expenses as soon as reasonably practicable after the event. Such compensation shall be included in the next Invoice to be produced by the DCC following its calculation.

Special Installation Mesh Communications Hubs

- F6.19 Special Installation Mesh Communications Hubs are not ordered under Section F5 (Communications Hub Forecasts & Orders). Consequently, Special Installation Mesh Communications Hubs are not delivered under this Section F6. All references in this Section F6 to Communications Hubs shall be deemed to exclude Special Installation Mesh Communications Hubs.

Timing of CHTS Compliance

- F6.20 The DCC is obliged under the DCC Licence to deliver Communications Hubs that are within their Installation Validity Period and is thereafter subject to licence obligations relating to their maintenance. Nothing in this Section F6 (or elsewhere in this Code) is intended to require the DCC to ensure CHTS compliance at the time of a Communications Hub's installation.

F7. INSTALLATION AND MAINTENANCE OF SMETS2+ COMMUNICATIONS HUBS

All references to "Communications Hubs" in this Section F7 are references to "SMETS2+ Communications Hubs".

Installation

- F7.1 Each Supplier Party that installs a Communications Hub shall ensure that such Communications Hub is installed in accordance with the CH Installation and Maintenance Support Materials.
- F7.2 Where:

- (a) a Supplier Party is installing a Communications Hub for a premises; and
- (b) the Supplier Party knows (or should reasonably know) that the premises will also require a Communications Hub Function to form part of a Smart Metering System with a Smart Meter for which the Supplier Party is not a Responsible Supplier,

then that Supplier Party shall, to the extent that it is reasonably able to do so, install a Communications Hub such that the Communications Hub Function will be capable of forming part of a Smart Metering System with both the Smart Meter for which it is a Responsible Supplier and the Smart Meter for which it is not a Responsible Supplier.

F7.3 On completion of the installation of a Communications Hub in accordance with Section F7.1, risk of loss or destruction of or damage to the Communications Hub shall cease to vest in the Party which ordered the Communications Hub (or, in the case of Special Installation Mesh Communications Hubs, shall cease to vest in the Supplier Party which took delivery of the Communications Hub).

Risk in the Communications Hubs following Installation

- F7.4 Following completion of installation of a Communications Hub, risk of loss or destruction of or damage to the Communications Hub shall vest in the same or a different Party as follows:
- (a) where the Communications Hub is removed from a premises by a Supplier Party, then the risk of loss or destruction of or damage to that Communications Hub shall vest in that Supplier Party such that that Supplier Party is responsible for all such risk since installation of the Communication Hub until such risk transfers to the DCC under Section F8.11 (Acceptance of a Returned Communications Hub); or
 - (b) where a Communications Hub is lost or destroyed following completion of its installation at a premises and before commencement of its removal from a premises by a Supplier Party, then the Supplier Party that is obliged to notify the DCC of a Communications Hub's loss or destruction under Section F8.17(b) (Loss or Destruction of Communications Hubs) shall be deemed to bear the risk of such loss or destruction.

Special Installation Mesh Communications Hubs

- F7.4A Where it is determined in accordance with the CH Installation and Maintenance Support Materials that a Supplier Party is required to install a Special Installation Mesh Communications Hub in respect of a premises, then the following provisions shall apply:
- (a) the DCC shall (subject to Section F7.5) deliver a Special Installation Mesh Communications Hub to the Supplier Party at the premises;
 - (b) the DCC shall ensure that the Special Installation Mesh Communications Hub that is delivered is of the HAN Variant that the Supplier Party requests;

- (c) delivery, risk and ownership of the Special Installation Mesh Communications Hub shall be subject to the same principles as are described in Sections F6.5 and F6.6 (Delivery) by reference to the Supplier Party to which the Communications Hub is handed by the DCC and completion of such hand over (as completion of handover is further described in the CH Handover Support Materials);
- (d) following delivery of a Special Installation Mesh Communications Hub as referred to in this Section F7.4A, the Special Installation Mesh Communications Hub shall be subject to the provisions of this Section F7 and of Sections F8 (Removal and Return of Communications Hubs) and F9 (Categories of Communications Hub Responsibility), save as otherwise expressly provided;
- (e) in addition to the application of Section F8 (Removal and Return of Communications Hubs), a Supplier Party may return a Special Installation Mesh Communications Hub to the DCC while the Supplier Party and the DCC are still at the premises to which the Communications Hub was delivered, by handing the Communications Hub to the DCC (and the DCC shall accept handover of the Communications Hub, at which point risk of loss or destruction of or damage to the Communications Hub shall transfer to the DCC);
- (f) without prejudice to the other obligations of the DCC and the Responsible Suppliers under this Code in respect of Communications Hubs installed at premises, where a Responsible Supplier reasonably determines that an Incident is likely to require replacement or repair of the SIMCH Aerial, then the DCC shall (subject to Section F7.5) attend the premises and (where necessary) undertake such replacement or repair; and
- (g) each SIMCH Aerial shall be subject to Section F7.9 as if it was Communications Hub Auxiliary Equipment, save that no Party other than the DCC may replace or repair a SIMCH Aerial.

Special Installations & Modifications

- F7.5 Where the CH Installation and Maintenance Support Materials require the DCC to undertake works on behalf of a Supplier Party, and where such works require the consent or agreement of any person other than the Supplier Party or the DCC (including where the consent or agreement of the Energy Consumer and/or any landlord or other owner of premises is required), then that Supplier Party shall ensure that such consent or agreement is obtained in advance (and the DCC shall provide all information reasonably requested by the Supplier Party in relation to it obtaining such consent or agreement).
- F7.6 A Supplier Party responsible under Section F7.5 for obtaining a consent or agreement in relation to works shall take reasonable steps to obtain such consent or agreement in a form that permits the installation, operation, repair, modification, replacement and removal of the equipment.
- F7.7 Where the DCC attends any premises and/or undertakes any works in reliance on a consent or agreement obtained (or required to be obtained) by a Supplier Party under Section F7.5, the DCC shall do so:
 - (a) as the contractor of that Supplier Party;

- (b) in accordance with Good Industry Practice, the applicable consent or agreement obtained pursuant to Section F7.5 (and notified to the DCC), and the site rules and reasonable instructions of the owner and/or occupier of the relevant premises;
- (c) in compliance with all Laws and/or Directives applicable to the Supplier Party or its representatives (and notified to the DCC), including the requirements of the Supplier Party's Energy Licence concerning Supplier Party representatives who attend premises; and
- (d) in compliance with all reasonable requests of the Supplier Party.

F7.8 Not used

Ownership of and Responsibility for Communications Hub Auxiliary Equipment

- F7.9 In respect of those types of Communications Hub Auxiliary Equipment that are designed to be installed at premises, such Communications Hub Auxiliary Equipment shall be deemed to form part of the Communications Hub, and the provisions of this Section F7 and of Sections F8 (Removal and Return of Communications Hubs) and F9 (Categories of Communications Hub Responsibility) shall be construed accordingly.
- F7.10 In respect of those types of Communications Hub Auxiliary Equipment to which Section F7.9 does not apply:
- (a) legal and beneficial ownership of such Communications Hub Auxiliary Equipment shall vest in the Party that ordered it on risk in such equipment transferring to that Party under Section F6.5 (Delivery); and
 - (b) legal and beneficial ownership of such Communications Hub Auxiliary Equipment shall (where applicable) revert to the DCC on risk in such equipment transferring to the DCC under Section F6.12 (Rejected Communications Hub Products).

CH Support Materials Compliance and Access to Premises

- F7.11 The DCC shall reply to any reasonable request from a Party for information pertaining to compliance by the DCC with the CH Support Materials.
- F7.12 Each Party shall reply to any reasonable request from the DCC for information pertaining to compliance by that Party with the CH Support Materials.
- F7.13 Where the DCC wishes to attend a premises at which a Communications Hub is installed in order to assess a Party's compliance with the CH Support Materials in respect of that Communications Hub, the DCC may request access from the Responsible Supplier for the Smart Metering System(s) of which the Communications Hub forms part (or, where there is more than one such Responsible Supplier, from either or both of them as further described in the CH Support Materials).

- F7.14 Where a Responsible Supplier consents to a request under Section F7.13, the Responsible Supplier shall take all reasonable steps to obtain the consent of the Energy Consumer to the DCC attending the premises.
- F7.15 Where a Responsible Supplier does not consent to a request under Section F7.13, the DCC may refer the matter to the Panel. The Panel shall determine whether it is reasonably necessary for the DCC to attend the premises in order to assess (in general) a Party's compliance with the CH Support Materials. Where the Panel determines that it is, the Responsible Supplier shall take all reasonable steps to obtain the consent of the Energy Consumer to the DCC attending the premises.
- F7.16 Where the Energy Consumer's consent is obtained pursuant to Section F7.14 or F7.15, the Responsible Supplier and the DCC shall follow the relevant procedure for attending the premises set out in the CH Support Materials.
- F7.17 Where the DCC attends any premises in reliance on a consent obtained by a Supplier Party pursuant to Section F7.14 or F7.15, the DCC shall do so:
- (a) as the contractor of that Supplier Party;
 - (b) in accordance with Good Industry Practice, the applicable consent (as notified to the DCC), and the site rules and reasonable instructions of the owner and/or occupier of the relevant premises;
 - (c) in compliance with all Laws and/or Directives applicable to the Supplier Party or its representatives (and notified to the DCC), including the requirements of the Supplier Party's Energy Licence concerning Supplier Party representatives who attend premises; and
 - (d) in compliance with all reasonable requests of the Supplier Party.

Resolution of SMETS2+ SM WAN Coverage Incidents

- F7.18 Where a Communications Hub is installed at a premises in accordance with this Code but does not connect to the SM WAN, and the SM WAN Coverage Database indicated (at any time during the 30 days prior to the date of installation) that the SM WAN is (or would be) available in the area in which the premises is located on the installation date, then the DCC shall (within 90 days after having been notified in accordance with the CH Installation and Maintenance Support Materials):
- (a) provide a response to the installing Supplier Party that either (i) confirms that the SM WAN is now available in the relevant area such that Communications Hubs installed at premises in that area can be expected to be able to connect to the SM WAN; or (ii) provides reasons why the SM WAN is not so available; and
 - (b) (subject to Section F7.20) ensure that, in the case of at least 99% of all Communications Hubs for which the DCC is required to give such a response in each calendar quarter, the SM WAN is made available in the relevant area such that Communications Hubs installed at premises in that area can

be expected to be able to connect to the SM WAN (but excluding for this purpose those locations where SM WAN connectivity is affected by problems with access pursuant to Section F7.5 which arise otherwise than as a result of the DCC's breach of this Code).

- F7.19 Where a Communications Hub is installed at a premises in accordance with this Code but does not connect to the SM WAN (in circumstances where Section F7.18 does not apply), and the SM WAN Coverage Database is updated after installation to indicate that the premises is within an area in which the SM WAN is available, then (provided the DCC has been notified of the installation in accordance with the CH Installation and Maintenance Support Materials) the DCC shall (within 90 days after such update occurs):
- (a) provide a response to the Supplier Party which installed the Communications Hub that either (i) confirms that the SM WAN is now available in the relevant area such that Communications Hubs installed at premises in that area can be expected to be able to connect to the SM WAN; or (ii) provides reasons why the SM WAN is not so available; and
 - (b) (subject to Section F7.20) ensure that, in the case of at least 99% of all Communications Hubs for which the DCC is required to give such a response in each calendar quarter, the SM WAN is available in the relevant area such that Communications Hubs installed at premises in that area can be expected to be able to connect to the SM WAN (but excluding for this purpose those locations where SM WAN connectivity is affected by problems with access pursuant to Section F7.5 which arise otherwise than as a result of the DCC's breach of this Code).
- F7.20 Until 1 January 2021, Sections F7.18(b) and F7.19(b) do not apply to Communications Hubs installed at premises within a geographic area that is subject to a Network Enhancement Plan. Such Communications Hubs shall, until 1 January 2021, be excluded from the calculations under Sections F7.18(b) and F7.19(b).
- F7.21 Within a reasonable period of time following each calendar quarter that ends prior to 1 January 2021, the DCC shall produce a report which identifies:
- (a) any new Network Enhancement Plans that have been created during that quarter, any Network Enhancement Plans that were completed during that quarter, and any ongoing Network Enhancement Plans; and
 - (b) for each such Network Enhancement Plan:
 - (i) an overview of the geographic area that is subject to the plan;
 - (ii) the premises (by postcode) that fall within that area; and
 - (iii) the scheduled date for completion of the planned works (or, where applicable, the actual date

of completion).

F7.22 A copy of the report produced under Section F7.21 shall be provided by the DCC to the Parties, the Panel, the Authority and (on request) the Secretary of State.

F8. REMOVAL AND RETURN OF SMETS2+ COMMUNICATIONS HUBS

All references to "Communications Hubs" in this Section F8 are references to "SMETS2+ Communications Hubs".

Product Recall / Technology Refresh

F8.1 The DCC's rights under this Section F8.1 are in addition to (and separate from) the rights of the DCC (and the obligations of the other Parties) to remove and/or return Communications Hubs under other provisions of this Code (including pursuant to the Incident Management Policy and the CH Support Materials). The DCC has the right to request (in reliance on this Section F8.1) that Parties return to the DCC one or more Communications Hubs. Following receipt of such a request:

- (a) in respect of Communications Hubs that have been delivered but have not yet been installed at premises, the Party which ordered those Communications Hubs shall return them to the DCC;
- (b) in respect of Communications Hubs that have been installed at premises and not yet removed from that premises, the Lead Supplier for those Communications Hubs shall remove them from the premises and return them to the DCC (and this obligation shall apply whether or not such Lead Supplier is a User); and
- (c) in respect of Communications Hubs that have been removed from a premises and not yet returned to the DCC, the Supplier Party that removed the Communications Hub from the premises shall return them to the DCC.

F8.2 Where Section F8.1 applies, the DCC shall provide to Supplier Parties all such information as they or their Energy Consumers reasonably require in respect of the situation. Those Supplier Parties to whom Section F8.1(b) applies shall issue to affected Energy Consumers such information as is provided by the DCC concerning the situation.

Removal of Communications Hubs

F8.3 Each Supplier Party that:

- (a) is a Responsible Supplier for the Communications Hub Function forming part of a Communications Hub, is entitled to remove that Communications Hub from the premises at which it is installed (but must install a replacement Communications Hub);
- (b) Decommissions a Communications Hub Function, shall remove the Communications Hub of which

the Communications Hub Function forms part from the premises at which it is installed; and

- (c) is a Responsible Supplier for the Communications Hub Function forming part of a Communications Hub, may also be obliged under another provision of this Code to remove a Communications Hub, including where it is obliged to do so in accordance with the Incident Management Policy or the CH Support Materials.

F8.4 Where a Supplier Party removes a Communications Hub from a premises, it shall do so in accordance with the CH Installation and Maintenance Support Materials.

F8.5 Where a Communications Hub is removed by a Supplier Party from a premises at which it was previously installed, then the risk of loss or destruction of or damage to that Communications Hub shall vest in that Supplier Party as set out in Section F7.4(a) (Risk in the Communications Hubs following Installation).

Return of Communications Hubs

F8.6 Where a Communications Hub is removed by a Supplier Party from a premises at which it was previously installed, the Supplier Party shall return the Communications Hub to the DCC within 90 days after the date of its removal. This obligation to return a Communications Hub only applies where the Communications Hub Function which forms part of that Communications Hub has at any time had an SMI Status of 'installed not commissioned' or 'commissioned'.

F8.7 A Party that wishes to return a Communications Hub to the DCC shall be entitled to do so at any time. A Party that ceases to be a Party shall return to the DCC all the Communications Hubs that have been delivered to that Party and not yet installed at premises or reported as lost or destroyed.

F8.8 The DCC shall publish on the CH Ordering System the following information:

- (a) the addresses of no more than two locations in respect of each Region to which Communications Hubs can be returned (which locations must be in Great Britain), making clear which Device Models may be returned to which locations;
- (b) the operating hours of each such location during which returns can be made (which operating hours must be reasonable); and
- (c) any changes to the information required to be published under (a) and (b) above, for which at least four months' advance notice must be given (unless the Panel approves a shorter period).

F8.9 A Party required or opting to return one or more Communications Hubs to the DCC shall:

- (a) notify the DCC of the number of Communications Hubs to be returned, of the location to which they are to be returned (being one of the locations published for the relevant Region in accordance with Section F8.8), of the date on which they are to be returned, and of any further information required in accordance with the CH Installation and Maintenance Support Materials;

- (b) return those Communications Hubs to the location and on the date notified in accordance with (a) above during the applicable operating hours for that location published in accordance with Section F8.8;
- (c) otherwise comply with the return requirements set out in the CH Installation and Maintenance Support Materials; and
- (d) be liable to pay the applicable Charges in the event that it returns one or more Communications Hubs to the wrong returns location.

Acceptance of Returned Communications Hubs

- F8.10 The Party assigned responsibility for doing so under the CH Handover Support Materials shall ensure that the returned Communications Hubs are unloaded from the vehicle in which they have been returned, and that they are unloaded in accordance with Good Industry Practice and the CH Installation and Maintenance Support Materials.
- F8.11 Risk of loss or destruction of or damage to returned Communications Hubs shall transfer to the DCC on commencement of such unloading (where unloaded by the DCC) or on completion of such unloading (where not unloaded by the DCC).

Access to Returns Locations

- F8.12 The DCC shall ensure that each Party (and its sub-contractors and its and their agents) is allowed access to the locations published pursuant to Section F8.8 for the purposes of exercising the Party's rights and performing the Party's obligations under this Section F8.
- F8.13 The relevant Party shall ensure that any person that accesses a location pursuant to Section F8.14 shall do so in compliance with Good Industry Practice and the site rules and reasonable instructions of the DCC (or its representatives).

Reconditioning or Disposal of Communications Hubs by the DCC

- F8.14 The DCC shall take all reasonable steps to recondition and redeploy each Communications Hub that is returned to the DCC (having regard to the requirements of the DCC Licence).
- F8.15 Before a Communications Hub that has been returned to the DCC is delivered to a Party pursuant to Section F6 (Delivery and Acceptance of Communications Hubs), the DCC shall ensure that all Data relating to one or more Energy Consumers is permanently erased from that Communications Hub in accordance with the standard referred to in Section G2.18 (Management of Data).
- F8.16 Unless the Communications Hub is reconditioned and redeployed in accordance with Sections F8.14 and F8.15, the DCC shall ensure that each Communications Hubs that has been returned to the DCC is disposed of in accordance with Good Industry Practice and the standard referred to in Section G2.18 (Management of Data).

Loss or Destruction of Communications Hubs

F8.17 Where a Communications Hub has been lost or destroyed (save where such loss or destruction occurs while the risk of loss or destruction was the responsibility of the DCC), the following Party shall notify the DCC of such loss or destruction (via the CH Ordering System):

- (a) where such loss or destruction occurs prior to completion of the Communications Hub's installation at a premises by a Supplier Party, the Party that ordered that Communications Hub (or, in the case of Special Installation Mesh Communications Hubs, the Supplier Party which took delivery of the Communications Hub);
- (b) where such loss or destruction occurs after completion of such installation and before commencement of the Communications Hub's removal from a premises by a Supplier Party, the Supplier Party responsible under the Incident Management Policy for resolving the relevant Incident; or
- (c) where such loss or destruction occurs after commencement of the Communications Hub's removal from a premises by a Supplier Party, the Supplier Party which undertook such removal.

F8.18 Where a Communications Hub is lost or destroyed following completion of its installation at a premises by a Supplier Party and before commencement of its removal from a premises by a Supplier Party, then the Supplier Party that is obliged to notify the DCC of such loss or destruction under Section F8.17(b) shall be deemed to bear the risk of such loss or destruction as described in Section F7.4(b) (Risk in the Communications Hubs following Installation Installation).

F9. CATEGORIES OF SMETS2+ COMMUNICATIONS HUB RESPONSIBILITY

All references to "Communications Hubs" in this Section F9 are references to "SMETS2+ Communications Hubs".

Overview

- F9.1 The reason for the return of each returned Communications Hub, or for its loss or destruction, shall be determined in accordance with this Section F9.
- F9.2 The Party which returns a Communications Hub to the DCC shall specify the reason for the Communications Hub's return. The Party which notifies the DCC of a Communications Hub's loss or destruction shall specify the reason it was lost or destroyed. In any such case, such Party shall specify the reason in accordance with the CH Support Materials.
- F9.3 The reason specified by the relevant Party pursuant to Section F9.2 shall be subject to any contrary determination in accordance with this Section F9.
- F9.4 The reason for the return of a Communications Hub, as finally determined in accordance with this Section F9, shall be used to determine the applicable category of responsibility (as described in Section F9.4), which is then used for the purposes of calculating the Charges (or adjustments to the Charges in accordance with this Section F9).

Reasons

F9.5 The reasons that apply for the purposes of this Section F9 are as follows:

- (a) [not used];
- (b) return of a Communications Hub to the DCC due to a Special Second-Fuel Installation;
- (c) return of a Communications Hub to the DCC due to a Special WAN-Variant Installation;
- (d) loss or destruction of or damage to a Communications Hub, which occurred while the relevant Party was responsible for such risk and which was caused otherwise than by a breach of this Code by the DCC or a CH Defect;
- (e) return of a Communications Hub to the DCC, other than where another reason under this Section F9.5 applies;
- (f) that the Communications Hub has a CH Defect;
- (g) loss or destruction of or damage to a Communications Hub caused by a breach of this Code by the DCC;
- (h) rejection of a Communications Hub in accordance with Section F6.10 (Rejected Communications Hub Products); and
- (i) return of a Communications Hub to the DCC where requested by the DCC under Section F8.1 (Product Recall / Technology Refresh).

Categories of Responsibility

F9.6 For the purposes of this Section F9 and the Charging Methodology:

- (a) each of the reasons described in Sections F9.5(d) and (e) constitute a “**CH User Responsibility**”, and where the Party required to do so under Section F9.2 fails to specify a reason in accordance with that Section the reason shall be deemed to be a CH User Responsibility;

- (b) each of the reasons described in Sections F9.5(f) and (g) (where they apply prior to completion of the installation of the Communications Hub at a premises in accordance with the CH Installation and Maintenance Support Materials) and Section F9.5(h) constitute a “**CH Pre-Installation DCC Responsibility**”;
- (c) each of the reasons described in Sections F9.5(f) and (g) (where they apply following completion of the installation of the Communications Hub at a premises in accordance with the CH Installation and Maintenance Support Materials) constitute a “**CH Post-Installation DCC Responsibility**”;
- (d) the reason described in Sections F9.5(i) constitute a “**Product Recall or Technology Refresh**”; and
- (e) the reasons described in Sections F9.5(b) and (c) do not need to be categorised, as they do not directly give rise to a Charge or an adjustment to the Charges under this Section F9.

CH Fault Diagnosis

- F9.7 The DCC has the right to examine and test returned Communications Hubs and to investigate the cause of any damage to or loss or destruction of Communications Hubs to verify whether the reason given by a Party pursuant to Section F9.2 is correct (being “**CH Fault Diagnosis**”).
- F9.8 The DCC shall undertake CH Fault Diagnosis in accordance with the process for the same described in the CH Installation and Maintenance Support Materials (which may include sampling and extrapolation of results based on sampling).
- F9.9 The DCC shall, within 10 days after the return of Communications Hubs or notification of their loss or destruction by a Party, notify that Party (via the CH Ordering System) if the DCC intends to undertake any CH Fault Diagnosis in respect of those Communications Hub.
- F9.10 In the absence of a notification in accordance with Section F9.9, the reason given by a Party in accordance with Section F9.2 in respect of the Communications Hubs in question shall be deemed to be correct.
- F9.11 Provided the DCC has first given notice in accordance with Section F9.9, where the DCC disputes the reason given by a Party pursuant to Section F9.2 in respect of any Communications Hubs, the DCC shall provide to the Party a report setting out the DCC’s analysis of why the reason given by the Party is not correct.
- F9.12 Where the DCC does not provide a report to the Party in accordance with Section F9.11 within 35 days after the DCC’s notice to a Party under Section F9.9, the reason given by the Party in accordance with Section F9.2 in respect of the Communications Hubs in question shall be deemed to be correct.
- F9.13 Unless the Party notifies the DCC of the Party’s objection to the DCC’s analysis within 35 days after receipt of a report in accordance with Section F9.11, the analysis set out in the report shall be deemed to be correct.
- F9.14 Where the Party notifies the DCC of an objection within the time period required by Section F9.13, then

either of them may refer the matter to the Panel for determination (which determination shall be final and binding for the purposes of this Code). Where the Panel is unable to determine the reason for a Communications Hub's return, then the reason given by the relevant Party under Section F9.2 shall be deemed to be correct.

Reporting on DCC Faults

F9.15 The DCC shall report to the Panel and the other Parties on the number of Communications Hubs for which the reason for return, loss or destruction is determined in accordance with this Section F9 to have been a CH Pre-Installation DCC Responsibility or a CH Post-Installation DCC Responsibility. The DCC shall report in respect of successive periods of three months (starting with the month in which Communications Hubs are first delivered pursuant to this Section F). Such report shall include a supporting explanation of the circumstances that gave rise to such instances of CH Pre-Installation DCC Responsibility or CH Post-Installation DCC Responsibility. Where the DCC is disputing (under CH Fault Diagnosis) whether an instance of CH Pre-Installation DCC Responsibility or CH Post-Installation DCC Responsibility has arisen, the DCC shall not include those instances until the matter is finally resolved (under CH Fault Diagnosis).

Compensation for CH Type Faults

F9.16 Where the reason for a Communications Hub's return, loss or destruction is determined in accordance with this Section F9 to have been a CH Post-Installation DCC Responsibility, then a "CH Type Fault" shall be said to have occurred in respect of that Communications Hub (at the time of such return or notification, and in respect of the Party making such return or notification).

F9.17 Section F9.18 shall apply in respect of a Region and a calendar year, where the number of CH Type Faults relating to that Region and occurring during that calendar year exceeds 0.5% of the total number of Communications Hubs that are installed at premises within that Region as at the end of that calendar year.

F9.18 Where this Section F9.18 applies in respect of a Region and a calendar year, the DCC shall be liable to pay to Parties collectively an amount of liquidated damages equal to the positive amount (if any) calculated as follows:

- (a) £50.00; multiplied by
- (b) the Consumer Prices Index for April of that calendar year, divided by the Consumer Prices Index for September 2013; multiplied by
- (c) (i) the number of CH Type Faults relating to that Region and occurring during that calendar year; less (ii) 0.5% of the total number of Communications Hubs that are installed at premises within that Region as at the end of that calendar year; less (iii) the number of CH Type Faults relating to that Region and occurring during that calendar year for which the DCC is liable to pay a CH Batch Fault Payment.

F9.19 The aggregate amount (if any) payable by the DCC under Section F9.18 in respect of a Region and a

calendar year shall be payable by the DCC to each Party (the amount payable to each Party being a “**CH Type Fault Payment**”) pro-rated in proportion to:

- (a) the number of CH Type Faults (across all Regions) which occurred in respect of that Party during that calendar year, less the number of CH Type Faults (across all Regions) which occurred in respect of that Party during that calendar year for which the DCC is liable to pay a CH Batch Fault Payment; as compared to
- (b) the total number of CH Type Faults (across all Regions) which occurred in respect of all Parties during that calendar year, less the number of CH Type Faults (across all Regions) which occurred in respect of all Parties during that calendar year for which the DCC is liable to pay a CH Batch Fault Payment.

Compensation for Batch Faults

F9.20 A “**CH Batch Fault**” shall occur in respect of a Delivery Batch where:

- (a) the number of CH Type Faults which occur in respect of a Communications Hub forming part of that Delivery Batch, and which occur within 12 months following completion of the installation of that Communications Hub; exceeds
- (b) 10% of the number of Communications Hubs comprising that Delivery Batch.

F9.21 Where a CH Batch Fault occurs in respect of a Delivery Batch, the DCC shall be liable to pay to each Party an amount of liquidated damages (being a “**CH Batch Fault Payment**”) equal to:

- (a) £50.00; multiplied by
- (b) the Consumer Prices Index for April of that calendar year, divided by the Consumer Prices Index for September 2013; multiplied by
- (c) the number of CH Type Faults which occurred in respect of that Party and a Communications Hub which formed part of that Delivery Batch, and which occur within 12 months following completion of the installation of that Communications Hub.

Payment of Type Fault and Batch Fault Compensation

F9.22 The DCC shall include each CH Type Fault Payment and each CH Batch Fault Payment payable to a Party as a credit in favour of that Party under the DCC’s Invoices (so as to reduce the Charges payable by that Party).

Compensation for Product Recall or Technology Refresh

F9.23 Where the reason for a Communications Hub's return is determined in accordance with this Section F9 to have been a Product Recall or Technology Refresh, then the DCC shall (notwithstanding Section M2.8 (Exclusion of Other Liabilities)) be liable to each other Party for the reasonable costs and expenses incurred by that Party in:

- (a) any corrective action taken by that Party in accordance with this Code or other Laws and/or Directives (including any withdrawal or recall activities); and/or
- (b) notifying or warning Energy Consumers of any corrective action taken by the DCC and/or any other Party (and providing Energy Consumers with relevant information regarding such corrective action).

Damage Caused by Defective Communications Hubs

F9.24 Where a CH Defect causes loss of or damage to physical property (including loss of or damage to Systems, and loss or corruption of Data), such loss or damage shall be deemed to have been caused by a breach of this Code by the DCC, including for the purposes of M2.5 (Damage to Physical Property).

Exclusive Remedies for Site Visits

F9.25 Notwithstanding Sections F9.24 and M2.6(a) (Recovery of Loss which is Expressly Permitted), no Party shall be entitled to recover from the DCC any costs or expenses incurred in attending a premises for the purposes of repairing or replacing any Devices damaged or destroyed as a result of a CH Defect. This Section F9.25 is without prejudice to the CH Type Fault Payments, CH Batch Fault Payments, and compensation under Section F9.23 in respect of Product Recall or Technology Refresh.

Exclusive Remedy for Damaged or Lost Communications Hubs

F9.26 No Party shall have any liability to the DCC for damage to, or loss or destruction of, Communications Hubs. This Section F9.26 is without prejudice to the Charges payable in respect of the Communications Hub Services.

F10. SMETS2+ TEST COMMUNICATIONS HUBS

Overview

F10.1 Unless expressly stated otherwise, the references in this Code to Communications Hubs do not include Test Communications Hubs.

F10.2 Without limiting the generality of Section F10.1, because Test Communications Hubs are not to be treated as Communications Hubs, Test Communications Hubs shall:

- (a) not be included in Communications Hub Forecasts or Communications Hub Orders;
- (b) not be subject to Sections F5 (Communications Hub Forecasts & Orders) to F9 (Categories of Communications Hub Responsibility);
- (c) not be (or be capable of being) Commissioned; and
- (d) only be populated with Test Certificates (and not actual Organisation Certificates or Device Certificates).

Prototype Communications Hubs

F10.3 Where the DCC provides a Prototype Communications Hub as a Test Communications Hub (in accordance with the definition of Test Communications Hub), the DCC shall provide details of the manner in which the Prototype Communications Hub does not comply with CHTS. For the purposes of this Section F10.3 and the definition of Prototype Communications Hub, until such time as the CHTS forms part of this Code, the references to the CHTS shall be construed by reference to the draft of the CHTS that the Secretary of State directs from time to time for the purposes of this Section F10.3.

Provision of Test Communications Hubs

F10.4 The DCC shall, from the relevant date set out in the End-to-End Testing Approach Document, provide Test Communications Hubs to other Parties and to any other person that requests them (in each case in accordance with the other provisions of this Section F10). The DCC shall take reasonable steps to provide Test Communications Hubs from an earlier date. Where the DCC is able to make Test Communications Hubs available from an earlier date, the DCC shall publish a notice to that effect on the DCC Website.

F10.5 Where a person that is not a Party wishes to order Test Communications Hubs, the DCC shall offer terms upon which Test Communications Hubs may be ordered. Such offer shall be provided as soon as reasonably practicable after receipt of the request, and shall be based on the Specimen Enabling Services Agreement (subject only to such variations from such specimen form as are reasonable in the circumstances). A person that is bound by an agreement entered into with the DCC pursuant to this Section F10.5 shall be a "**TCH Participant**". The DCC shall not provide Test Communications Hubs to a person that is not a Party or a TCH Participant.

F10.6 The DCC shall allow Parties and TCH Participants to order and return Test Communications Hubs via a reasonable means.

F10.7 The DCC shall publish on the DCC Website a guide describing the process by which Parties and other

persons may obtain and return Test Communications Hubs.

Ordering, Delivery, Rejection and Returns

F10.8 Where a Party or a TCH Participant has ordered one or more Test Communications Hubs via the means described in Section F10.6:

- (a) the person that ordered the Test Communications Hubs shall be liable to pay the applicable Charge;
- (b) the DCC shall deliver the Test Communications Hubs to the location in Great Britain requested by the person that ordered the Test Communications Hubs, on the date requested by that person (provided that the DCC shall have no obligation to deliver Test Communications Hubs earlier than the date 18 weeks after the date on which the Test Communications Hubs were ordered);
- (c) delivery of the Test Communications Hubs shall occur on their removal from the delivery vehicle at the delivery location;
- (d) legal and beneficial ownership of (and responsibility for loss or destruction of or damage to) the Test Communications Hubs shall vest in the person that ordered them on commencement of their unloading at the delivery location (where not unloaded by the DCC) or on completion of their unloading at the delivery location (where unloaded by the DCC);
- (e) the person that ordered the Test Communications Hubs shall be entitled to reject a delivery and arrange for the return of the rejected Test Communications Hubs to the DCC on the following basis (and only where notified to the DCC within five days of the delivery date):
 - (i) to the extent the delivery contained more Test Communications Hubs than were ordered; and/or
 - (ii) to the extent the Test Communications Hub Products are (or reasonably appear on a visual inspection to be) damaged or have been (or reasonably appear on a visual inspection to have been) tampered with (and such damage or tampering occurred prior to their delivery);
- (f) the person that ordered the Test Communications Hubs shall be entitled to return them to the DCC where a CH Defect arises within 6 months following their delivery, but not thereafter (for which purpose, the definition of CH Defect shall be construed by reference to the requirements for Test Communications Hubs rather than those for Communications Hubs);
- (g) a person wishing to return a Test Communications Hub to the DCC pursuant to (e) or (f) above shall return it to the DCC in accordance with the relevant rules applicable to Communications Hubs under Section F8 (Removal and Return of Communications Hubs); and
- (h) legal and beneficial ownership of (and responsibility for loss or destruction of or damage to) the Test Communications Hubs rejected or returned pursuant to this Section F10.8 shall revert to the DCC on completion of their unloading at the returns location (where not unloaded by the DCC) or on commencement of their unloading at the returns location (where unloaded by the DCC).

- F10.9 The rejection and/or return of Test Communications Hubs by a Party or TCH Participant pursuant to Section F10.8 is relevant in determining the Charges payable by that Party or TCH Participant. Where the DCC wishes to do so, it may undertake physical and electronic analysis in respect of Test Communications Hubs rejected or returned, in which case the process for CH Fault Diagnosis shall apply, but:
- (a) by reference to the reason for rejection and/or return given pursuant to Section F10.6 (rather than by reference to the reason given pursuant to Section F9 (Categories of Communications Hub Responsibility)); and
 - (b) without the DCC's ability to apply sampling and extrapolation to the extent that such an ability is set out in the CH Installation and Maintenance Support Materials.

Use of Test Communications Hubs

- F10.10 The Party or TCH Participant that ordered a Test Communications Hub shall (unless or until it is returned pursuant to Section F10.8) ensure that the Test Communications Hub shall:
- (a) only be used by Parties or TCH Participant for the purposes of tests undertaken under this Code, or for the purposes of testing Devices or Systems to be used in relation to this Code; and
 - (b) be used and maintained in accordance with Good Industry Practice, and the requirements of this Code applicable to Test Communications Hubs.
- F10.11 Where a CH Defect in a Test Communications Hub (for which purpose, the definition of CH Defect shall be construed by reference to the requirements for Test Communications Hubs rather than those for Communications Hubs) causes loss of or damage to physical property (including loss of or damage to Systems, and loss or corruption of Data), such loss or damage shall be deemed to have been caused by a breach of this Code by the DCC, including for the purposes of M2.5 (Damage to Physical Property).

Availability of Test CH Variants

- F10.12 The DCC shall ensure that the Test Communications Hubs made available pursuant to this Section F10 represent SMETS2+ Communications Hubs that provide for each and every combination of HAN Variant and WAN Variant; subject to Section F10.15.
- F10.13 The DCC shall not be obliged to make one or more Test Communications Hub variants available pursuant to this Section F10 where it is not cost effective to do so (having regard to the obligations of Supplier Parties under this Code, including under Section F4.4 (Interoperability with DCC Systems)).
- F10.14 Where the DCC seeks to rely on Section F10.13 in respect of one or more variants, the DCC shall publish notice of that fact on the DCC Website, including within such notice the DCC's justification for why it is not cost effective to make that variant available pursuant to this Section F10. Where a Party disagrees with the DCC's justification in respect of one or more variants, that Party may refer the matter to the Panel to determine whether the DCC's justification is valid. Where the DCC or any other Party disagrees

with the Panel's determination, the DCC or such other Party may refer the matter to the Authority for its determination (which shall be final and binding for the purposes of this Code).

F10.15 Where the DCC seeks to rely on Section F10.13 in respect of one or more variants, the DCC shall not be obliged to make the Test Communications Hub variant available pursuant to this Section F10 until either:

- (a) the Panel has determined that the DCC is obliged to make the variant available, and the DCC has not referred the matter to the Authority within 20 Working Days following the Panel's determination; or
- (b) the Authority has determined that the DCC is obliged to make the variant available.

F11. ALCS/HCALCS LABELS LIST

ALCS/HCALCS Labels List

F11.1 The Panel will establish and maintain a list of ALCS/HCALCS labels which provide a standardised naming convention for all possible ALCS and HCALCS (the "**ALCS/HCALCS Labels List**").

F11.2 The Panel will agree updates to the ALCS/HCALCS Labels List as proposed by Parties.

F11.3 Within one working day after the ALCS/HCALCS Labels List is updated, the Panel will:

- (a) Publish a copy of the updated list on the website; and
- (b) Notify the Parties that the list has been updated.