

The Authority (Ofgem), the SEC Panel, SEC Parties
And other interested parties

6 November 2024

Dear Colleague,

Smart Metering Implementation Programme: Response to consultation on introducing an obligation for Trust Centre Swap Out proving in live and direction to re-designate the Network Evolution Transition and Migration Approach Document as version 4.0

The Department for Energy Security & Net Zero ('the Department') ran a consultation¹ on draft revisions to the Network Evolution Transition and Migration Approach Document (NETMAD)² between 31 July 2024 and 11 September 2024 which included a proposed obligation on Large Supplier Parties to carry out Trust Centre Swap Out (TCSO) proving. A summary of consultation responses and our response to comments made by respondents can be found in **Annex 1** to this letter. A reporting template containing the reporting requirements is included in **Annex 2**.

Having considered the responses to the consultation, the Department has concluded that only minor editorial changes will be made to the NETMAD draft. The Department is now re-designating the revised NETMAD for incorporation into the SEC as Appendix AU version 4.0. The direction can be found in **Annex 3** and Appendix AU version 4.0 in **Annex 4**.

Yours faithfully,



Jim Cosgrove

Deputy Director and Head of Delivery

Smart Metering Implementation Programme

Annex 1 Response to consultation

¹ <https://smartenergycodecompany.co.uk/documents/sec/20240731-consultation-on-netmad-changes-to-introduce-an-obligation-for-trust-centre-swap-out-proving-in-live/>

² <https://smartenergycodecompany.co.uk/documents/sec/20240731-annex-2-netmad-drafting>

Annex 2 Reporting template

Annex 3 Direction

Annex 4 Appendix AU – Network Evolution Transition and Migration Approach Document
Version 4.0

Annex 1: Response to consultation

Overview of consultation responses

1. The 31 July 2024 consultation closed on 11 September 2024 and we received a total of nine written responses from Large Supplier Parties and DCC.
2. Eight out of nine respondents agreed with our proposed changes to the NETMAD. One respondent disagreed with the principles and one respondent agreed to the principles with caveats.

Overview of government response

3. The Department for Energy Security & Net Zero ('the Department') notes agreement from eight out of nine respondents with the proposed changes to the NETMAD set out in the 31 July 2024 consultation. Several changes to the NETMAD legal drafting were proposed, however, for the reasons detailed in the following section, we have chosen not to incorporate these apart from minor editorial changes.
4. We will now re-designate for incorporation into the SEC the NETMAD included in **Annex 4** of this letter using powers under condition 22 of the DCC licence and section X5 of the SEC.

Responses to the consultation questions

- 1) Do you have any comments on the principles of the proposed changes to the Network Evolution Transition and Migration Approach Document?

Overview of responses

5. Eight out of nine respondents agreed with the principles of the proposed changes to the NETMAD. One respondent disagreed with the principles and one respondent agreed to the principles with caveats. Five respondents made additional suggestions which are presented below.

Detailed comments and government response and decision

6. One respondent didn't agree with obligating Large Supplier Parties to take part in the TCSO proving exercise as there are already other obligations and commercial drivers that ensure TCSO proving would be achieved by most energy suppliers.

Government response: Experience to date suggests that the number of suppliers willing to undertake voluntary TCSO proving was insufficient to ensure confidence in time for the mass rollout of 4G Communication Hubs. A regulatory obligation provides certainty that this activity will occur, supporting knowledge about the underlying technical capability and uncovering any operational issues that might exist. Providing a timeframe ensures that TCSO proving will take place ahead of the forthcoming mass rollout of 4G Communication Hubs and ensures there is time to resolve any potential issues that are uncovered.

7. One respondent requested a template that could be used to capture the reporting requirements and feedback engineers' findings and observations, as well as an indication of how quickly these results will be expected following the proving period to plan resources accordingly.

Government response: A template has been developed which includes the reporting requirements. The template is included in **Annex 2**. Results from the TCSO proving in live obligation are expected to be sent to the Department (smartmetering@energysecurity.gov.uk) by **5pm on 6 May 2025**, six months from when Clause 10.1 of the re-designated NETMAD provided in **Annex 4** takes effect.

8. One respondent emphasised the need for DCC to make available the expected services for Initial Pallet Validation (IPV), and share meter firmware versions known to support TCSO, on time to ensure TCSO proving can be completed successfully.

Government response: We acknowledge that some suppliers plan to use IPV to undertake TCSO Visits to meet the TCSO proving obligations being introduced. DCC has indicated that they will share an updated TCSO guidance documentation with IPV participants, which will be published on the SECAS website, to clarify meter firmware versions when planning TCSO Visits. Although it remains the responsibility of the Supplier Party to ensure devices are on firmware that is compliant with relevant technical specifications.

9. One respondent suggested that Small Supplier Parties should be included in the obligation, to share industry TCSO proving responsibility and ensure that all Supplier Parties are prepared for implementing TCSOs. Another respondent suggested that having the same quota of TCSO pilots is not proportionate to the different relevant market shares of Large Supplier Parties organisations.

Government response: The obligation only includes Large Supplier Parties as they have greater resource capacity compared to Small Supplier Parties to undertake 40 TCSO Visits. The decision to have the same quota of TCSO Visits ensures that there is a consistent approach to monitoring and enforcement and this ensures each Large Supplier Party has clarity of their responsibilities. The quota of 40 TCSO Visits is relatively small and achievable regardless of the size of the Large Supplier Party. It is also the case that the reason for the obligations is not primarily to test the ability of particular suppliers to be able to carry out the TCSOs, but instead to gain information about the TCSO process in general, and to learn from any successes and issues arising. Any previous TCSO Visits that have been completed in accordance with requirements of the new obligations as well as TCSO Visits attempted during IPV, will count towards the 40 TCSO proving obligation.

10. One respondent raised the risk that specific defects may be missed by not requiring TCSOs to be completed in different CSP (Communications Service Provider) Regions.

Government response: We acknowledge that the obligation does not require TCSO proving in specific CSP Regions, however we are confident that TCSO Visits will be undertaken in multiple CSP Regions due to the range of CSP Regions covered by Large Supplier Parties. We can confirm that TCSO Visits in all CSP Regions count towards meeting the obligations.

11. One respondent raised whether the Communication Hubs returns process and charging arrangements applied to Suppliers carrying out this obligation are appropriate.

Government response: Given that the quota is 40 TCSO Visits per Large Supplier, we consider that any adjustments to the returns process or charging rules for the purpose of the TCSO proving obligation would be disproportionate, and therefore that the current returns process and charging arrangements remain appropriate.

- 2) Do you have any comments on the legal drafting of the proposed additions to NETMAD?

Overview of responses

11. All respondents were in agreement that the legal drafting conveyed the principles of the proposed changes to the NETMAD. Three respondents made additional suggestions which are presented below.

Detailed comments and government response and decision

12. One respondent suggested amending the wording to include whether or not any replacement of the SMETS2+ Communications Hub at the premises during the TCSO Visit was successful.

Government response: Under the reporting requirements in Annex 3 Clause 10.3 (c), the Department requests details as to whether or not the SMETS2+ Communications Hub installed at the premises was replaced with another SMETS2+ Communications Hub during the TCSO Visit and if not the reasons for being unable to make the replacement.

13. One respondent suggested that two additional data points should be added to the required reporting in Annex 4 Clause 10.3, including the 'Time for Physical Install' and 'Time for Full Reconnection'.

Government response: The reporting requirements in Annex 4 Clause 10.3 (b) allow Supplier Parties to choose the methodology used to calculate and determine the duration of each TCSO Visit. An example of how to measure a TCSO Visit time is included in the reporting template shared alongside this document. However, Supplier Parties are welcome to include additional information in the report and to support optimisation of the operational process by sharing thoughts at the TCSO Issues Resolution Group (TIRG), a sub-group of the SEC Operations Group (OPSG).

14. One respondent requested that any changes to the reporting requirements in Annex 4 Clause 10.3 after re-designation of the NETMAD should be avoided as amendments may be problematic and be costly to deliver.

Government response: We do not intend to amend the reporting requirements in Annex 4 after re-designation of the NETMAD.

Next Steps

15. As set out previously, we will now re-designate for incorporation into the SEC the revised NETMAD as version 4.0 included in **Annex 4** of this letter using powers under condition 22 of the DCC licence and section X5 of the SEC.

Annex 2: Reporting template

Supplier name:	
Visit ID:	<i>An identifier to allow reference to a given visit</i>
Date:	<i>Date the CH exchange was attempted</i>
CSP Region:	<i>CSPC, CSPS or CSPN</i>
Single/Dual Fuel:	<i>Electricity only premises or dual fuel premises</i>
Happy Path Checked:	<i>Were pre-visit checks (such as those set out in the most recent TCSO guidance document) undertaken to check for known issues that could affect TCSO being attempted?</i>
Old CH Device Model:	<i>Make and model of old CH</i>
New CH Device Model:	<i>Make and model of new CH</i>
ESME Device Model:	<i>Make and model of ESME</i>
GSME Device Model:	<i>Make and model of GSME</i>
IHD/PPMID Device Model:	<i>Make and model of IHD/ PPMID</i>
CADs etc Device Model:	<i>Make and model of any addition devices</i>
Outcome:	<i>Please choose from: 1) all devices rejoin HAN via TCSO (SR8.12.1 and 8.12.2) 2) use of SR8.11 required (please specify which device) 3) Other</i>
ESME Rejoin Time:	<i>Time measured from point at which new CH births to when HAN alert from ESME received, if different methodology used, please specify. Please do not double count with other device rejoin times</i>
GSME Rejoin Time:	<i>Time measured from point at which new CH births to when HAN alert from GSME received, if different methodology used, please specify. Please do not double count with other device rejoin times</i>
IHD/ PPMID Rejoin Time:	<i>Time measured from point at which new CH births to when HAN alert from IHD/ PPMID received, if different methodology used, please specify. Please do not double count with other device rejoin times</i>
Overall Rejoin Time:	<i>Time measured from point at which new CH births to when the HAN alert from the last device to join the HAN received, if different methodology used, please specify. Please do not double count with other device rejoin times</i>
Observations:	<i>General comments, especially in the event TCSO failed please include details of any suspected root causes/ incidents raised etc</i>

Annex 3: Direction

Direction

This direction is made for the purposes of the smart meter communication licences granted under the Electricity Act 1989 and the Gas Act 1986 (such licences being the “DCC Licence”) and the Smart Energy Code designated by the Secretary of State pursuant to the DCC Licence (such code being the “SEC”).

Words and expressions used in this direction shall be interpreted in accordance with Section A (Definitions and Interpretation) of the SEC.

Pursuant to Condition 22 of the DCC Licence and Section X5 (Incorporation of Certain Documents into this Code) of the SEC, the Secretary of State directs that, with effect from 6 November 2024, the Network Evolution Transition and Migration Approach Document (NETMAD) previously designated and incorporated into the SEC as Appendix AU, is hereby re-designated and incorporated in the form set out in Annex 4 of this direction.

For the avoidance of doubt, the re-designation of the Network Evolution Transition and Migration Approach Document shall be without prejudice to anything done under the DCC Licence or SEC on or after this document was previously designated or re-designated, or to the continuing effectiveness of anything done under this document prior to its re-designation (which shall have effect as if done under the relevant designated or re-designated document).

This re-direction is also being notified to the SEC Administrator.

Annex 4: Appendix AU – Network Evolution Transition and Migration Approach Document Version 4.0

Version 4.0

Appendix AU

Network Evolution Transition and Migration Approach Document

1. Introduction and General Obligations

- 1.1. This Appendix is the Network Evolution Transition and Migration Approach Document (NETMAD) developed by the DCC pursuant to Section F13 (Network Evolution Transition and Migration Approach Document) of the Code.
- 1.2. Where directed to do so by the Secretary of State from time to time, the DCC shall develop and consult upon a further draft or drafts of this NETMAD in accordance with Section F13.5 of the Code, and the DCC shall submit such further draft(s) to the Secretary of State in accordance with the process set out in Section F13.4 of the Code.
- 1.3. For the purposes of Section F13.8 (Expiry of the Network Evolution Transition and Migration Approach Document), this NETMAD will cease to apply on 30 June 2026 (or any such later date as the Secretary of State may direct following a consultation on a proposed alternative with the Parties and the Panel) and shall no longer have any effect from such date (but without prejudice to the rights and obligations arising prior to that date).

2. Defined Terms and Interpretation for the purpose of the NETMAD

- 2.1. The following definitions shall apply in the NETMAD:

Term	Meaning
4G Central/South	is a Region, and refers to the Geographical Regions covering central Great Britain and the south of Great Britain and the use of 4G mobile communications technology in those Geographical Regions.
4G Communications Hub	means a SMETS2+ Communications Hub that is designed to work with 4G mobile communications technology
4G SM WAN	means that part of the SM WAN that will utilise 4G mobile communications technology.
4G Test Communications Hub	means a device that is equivalent to a 4G Communications Hub but which contains such variations in functionality as the DCC reasonably considers appropriate to enable the device to be used for the purposes of testing, which device is provided (or to be provided) for the purpose of testing as described in Section F10 (SMETS2+ Test Communications Hubs).

Term	Meaning
Active Mesh Gateway Communications Hub	means a Mesh Communications Hub that is within range of mobile cellular radio technology and which connects to one or more other Mesh Communications Hubs that are outside the range of mobile cellular radio technology via wireless mesh radio technology for the purpose of connecting those Mesh Communications Hubs to the SM WAN.
Active Mesh Hop Communications Hub	means a Mesh Communications Hub that is outside range of mobile cellular radio technology and which connects to one or more other Mesh Communications Hubs that are also outside the range of mobile cellular radio technology via wireless mesh radio technology for the purpose of connecting those Mesh Communications Hubs to the SM WAN.
Carton	means a package of 14 4G Communication Hubs in a cardboard box.
Communications Technology	means each of the telecommunications technologies used to provide all or part of the SM WAN, including each of the following: (a) long-range radio; (b) 2G and/or 3G mobile communications technology; and (c) 4G mobile communications technology.
Completion Report	means the completion report for Initial Pallet Validation to be completed pursuant to Clauses 4.9 – 4.14 of this NETMAD.
Geographical Region	means each of the three regions of Great Britain recognised for the purposes of this Code, being north, central and south. The region into which a premises (or future potential premises) falls shall be identified by the DCC and confirmed to other Parties on request. Once a premises has been identified by the DCC as being in a particular region, the DCC shall not identify that premises as being in a different region (unless agreed by the Supplier Party or Supplier Parties Registered for the MPAN and/or MPRN at the premises and the Network Party or Network Parties for the network(s) to which the premises is, or is intended to be, connected).
Initial Pallet Manufacture (or IPM)	means the first date on which 4G Communications Hubs will be manufactured for the purpose of Initial Pallet Validation.
Initial Pallet Validation (or IPV)	means the initial trialling of 4G Communications Hubs by Supplier Parties in premises.

Term	Meaning
Initial Pallet Validation Approach Document	means a document produced pursuant to Clause 4.4 of this NETMAD
Initial Pallet Validation Stage	means the period during which Initial Pallet Validation will be conducted.
JIP Milestone	means a milestone within the Joint Industry Plan.
Joint Industry Plan (JIP)	(in the context of this NETMAD) means the part of the joint industry plan that relates to the 4G Communications Hubs and Network Programme that is agreed at the Department for Energy, Security and Net Zero's smart metering design group.
DCC's Microsoft SharePoint	means a web-based collaborative platform that DCC uses to securely share and exchange information with individual Parties.
Region	means a combination of Geographical Region and Communications Technology as follows: (a) North; (b) 2G/3G Central; (c) 2G/3G South; and 4G Central/South.
Trust Centre Swap Out Visit (TCSO Visit)	means a visit to Designated Premises or Domestic Premises made by a Large Supplier Party (or their representative or agent) for the purposes of replacing a SMETS2+ Communications Hub installed at the premises with another SMETS2+ Communications Hub.
SMETS2+ SM WAN	means the means by which the DCC sends, receives and conveys communications to and from SMETS2+ Communications Hub Functions. The Communications Technology utilised for these purposes may differ from Region to Region, and there may be more than one Communications Technology utilised within a Geographical Region.
Special Installation Mesh Communications Hub	means a WAN Variant which is distinguishable from a standard Mesh Communications Hub by the existence of an additional external aerial port. These WAN Variants are only used for 2G/3G Central and 2G/3G South.

Term	Meaning
Transitional 4G Communications Hub Forecasting and Ordering Period	has the meaning given to that expression in Clause 6.1 of this NETMAD.
Relevant Period	means the period of six months commencing on the date that Clause 10.1 takes effect.

- 2.2. Additionally, where defined terms from specific parts of the Code are used, the relevant part of the Code is stated. Where no specific part of the Code is stated, a defined term shall have its Section A (Definitions and Interpretation) meaning.

3. Coverage Checker

- 3.1. Prior to the “LSC: Go-Live decision” JIP Milestone being met, the DCC shall make available to each Supplier Party through the DCC’s Microsoft SharePoint a searchable database with the capability to interrogate by post code and postal outcode whether a 4G Communications Hub installed in a premise at any given location:
- (a) is expected to be able to connect to the 4G SM WAN from the start of the Initial Pallet Validation Stage; or
 - (b) cannot be confirmed as being expected to be able to connect to the 4G SM WAN from the start of the Initial Pallet Validation Stage.
- 3.2. The database provided pursuant to Clause 3.1 shall be a CSV file which is searchable by users at postcode and outcode level and shall be kept up to date. Whenever the DCC makes available an updated version of the database it shall notify each Supplier Party that it has done so.

4. Initial Pallet Validation

- 4.1. A Supplier Party shall not enrol a Smart Metering System incorporating a 4G Communications Hub prior to the commencement of the Initial Pallet Validation Stage.
- 4.2. Each Supplier Party shall provide any information that the DCC reasonably requests in order to support the planning, coordination and undertaking of Initial Pallet Validation.

Initial Pallet Validation Approach Document

- 4.3. The DCC shall produce an Initial Pallet Validation Approach Document in accordance with Clause 4.4 which shall include the following:
- (a) the entry criteria that are required to be met before the Initial Pallet Validation Stage can commence;
 - (b) the process for resolving Incidents occurring in respect of Services pertaining to

the 4G mobile communications technology during the Initial Pallet Validation Stage, the applicable Incident thresholds that must not be exceeded in order for the Initial Pallet Validation Stage to complete successfully, and the process for excluding Incidents from counting towards those thresholds;

- (c) the other exit criteria that are required to be met in order for the Initial Pallet Validation Stage to successfully complete, including the minimum activity that must be undertaken before the Initial Pallet Validation Stage can complete; and
- (d) matters to be included in the completion report for the Initial Pallet Validation Stage.

4.4. The DCC shall submit a draft Initial Pallet Validation Approach Document to the Panel for review as soon as reasonably practicable (and such submission by the DCC and review by the Panel may take place prior to this Clause 4.4 coming into effect); and:

- (a) where the Panel and the DCC can reach an agreement, the draft Initial Pallet Validation Approach Document shall be updated by the DCC as necessary and deemed to be final; or
- (b) where the Panel and the DCC cannot reach an agreement, the matters of disagreement shall be referred by the DCC to the Secretary of State for determination. The Secretary of State's decision on such matters shall be final and binding for the purposes of this Code and the draft Initial Pallet Validation Approach Document shall be updated by the DCC as necessary and deemed to be final.

4.5. Revisions to the Initial Pallet Validation Approach Document finalised pursuant to Clause 4.4:

- (a) may, from time to time, be submitted by the DCC to the Panel in accordance with the provisions of Clause 4.4, and the provisions of Clause 4.4 shall apply (again) to the revised version of the document; or
- (b) shall be made by the DCC in accordance with any direction to do so issued by the Secretary of State. The DCC shall consult with the Panel concerning any such proposed revision in accordance with any direction to do so issued by the

Secretary of State.

- 4.6. The DCC shall comply with the Initial Pallet Validation Approach Document.

Start of Initial Pallet Validation

- 4.7. Initial Pallet Validation shall only commence once the Panel has determined that the Initial Pallet Validation entry criteria have been met.

Completion of Initial Pallet Validation

- 4.8. Initial Pallet Validation shall only complete once the Panel has determined that the exit criteria for completion as set out in the Initial Pallet Validation Approach Document have been met.
- 4.9. When the DCC considers that Initial Pallet Validation completion ought to occur, the DCC shall prepare a Completion Report. The DCC shall:
- (a) notify the Secretary of State, the Authority, the Panel, and the Parties that the DCC considers that Initial Pallet Validation has completed;
 - (b) provide the Authority, the Panel, and the Secretary of State with copies of the Completion Report and a list of the sections of such report that the DCC considers should be redacted prior to publication; and
 - (c) review the supporting documentation and evidence with regards to the relevant exit criteria with the Panel.
- 4.10. The Panel shall confirm the completion of Initial Pallet Validation or shall highlight where it believes the exit criteria have not been met.
- 4.11. Where the Panel confirms the completion of Initial Pallet Validation (subject to the Panel and the DCC reaching an agreement regarding resolution of any issues raised by the Panel), the Completion Report shall be updated by the DCC as necessary and deemed to be final.
- 4.12. Where the Panel declines to confirm the completion of Initial Pallet Validation, the DCC shall update the relevant Completion Report to reflect resolution of any issues where the DCC and the Panel reached an agreement, and the DCC shall then either:

- (a) refer the matters where the Panel and the DCC are in disagreement to the Secretary of State for determination; or
 - (b) continue with the Initial Pallet Validation Stage (and Clause 4.9 shall apply again).
- 4.13. Where a referral has been made by the DCC pursuant to Clause 4.12, the determination of the Secretary of State shall be final and binding for the purposes of this Code as follows:
 - (a) where the Secretary of State agrees that Initial Pallet Validation has completed, the relevant Completion Report shall be updated by the DCC as necessary and the contents shall be deemed to be final; or
 - (b) where the Secretary of State disagrees that Initial Pallet Validation has completed, the DCC shall continue with the Initial Pallet Validation Stage (and Clause 4.8 onwards shall apply again).
- 4.14. The DCC shall publish the final Completion Reports for Initial Pallet Validation as soon as reasonably practicable on the DCC Website, which shall be anonymised and redacted where directed by the Panel. The DCC shall notify the Panel, the Secretary of State, the Authority and the Parties of the publication of the report.

5. Ordering of 4G Communications Hubs for Initial Pallet Validation

- 5.1. Each Supplier Party shall be entitled to order 4G Communications Hubs intended for use in the Initial Pallet Validation Stage in accordance with this Clause 5.
- 5.2. 4G Communications Hubs orders shall be supplied by the DCC in Cartons. Each Supplier Party may place a request for a minimum order of 1 Carton and a maximum order of 64 Cartons during the calendar month prior to the "Initial Pallet Orders" JIP Milestone. The DCC shall ensure that there are in total 640 Cartons (8,960 4G Communication Hubs) available for ordering by Supplier Parties.
- 5.3. The DCC shall make available to Supplier Parties at least one DCC contact telephone number and one DCC email address for the purposes of order requests for 4G Communications Hubs. A Supplier Party shall place any order request in writing by email by completing a template provided by the DCC for this purpose.

- 5.4. The template provided by the DCC pursuant to Clause 5.3 shall include:
- (a) the number of Cartons of 4G Communications Hubs being ordered (which, in accordance with Clause 5.2, shall be between 1 and 64 Cartons);
 - (b) one Delivery Location for the order, including the following information for the Delivery Location:
 - (i) the full delivery address (including postcode);
 - (ii) days of the week and hours within those days that deliveries can be made;
 - (iii) a preferred delivery date within one month preceding the “Initial Pallet Supply” JIP Milestone; and
 - (iv) the name, email address, and telephone number for a nominated contact in relation to each Communications Hubs order.
- 5.5. Where a Supplier Party does not provide an order request in a number of Cartons or where the order request is more than 64 Cartons, DCC shall amend that element of the request at its discretion to comply with the requirements set out in this Clause 5.
- 5.6. Where the DCC receives a Communications Hub order request from a Supplier Party, the DCC shall:
- (a) promptly acknowledge receipt of the request; and
 - (b) within five Working Days of its receipt, notify the Supplier Party in writing via email either that:
 - (i) the request satisfies the requirements of Clause 5.4 and is therefore being processed; or
 - (ii) the request does not satisfy the requirements of Clause 5.4 with respect to the minimum or maximum number of Cartons therefore that the DCC has amended the order request pursuant to Clause 5.5, provide the details of the amendment and state that the request is being processed on that basis; and/or

- (iii) the request does not satisfy the other requirements of Clause 5.4 in which case the Supplier Party shall revise the request within [5] Working Days so that it does so satisfy those requirements, in order for it to be eligible for processing by the DCC.
- 5.7. Following completion of the steps in Clause 5.6, the DCC shall process each Supplier Party's order request in accordance with the rules set out in Clauses 5.8 – 5.15.
- 5.8. Where the aggregate of the order requests pursuant to Clause 5.6 exceeds 640 Cartons, the following rules shall apply and the DCC shall adjust each Supplier Party's order request accordingly:
 - (a) each order request for 16 Cartons or fewer shall be accepted. Each order request for more than 16 Cartons shall be reduced by one Carton. This process shall be repeated until the aggregate number of order requests does not exceed 640 Cartons, provided that the DCC shall not reduce a Supplier Party's order request below 16 Cartons; and
 - (b) once the rules in Clause 5.8(a) have been applied, any remaining Cartons that are available to be ordered shall be randomly allocated to individual order requests that were reduced pursuant to Clause 5.8(a).
- 5.9. Where the aggregate of order requests pursuant to Clause 5.6 equals 640 Cartons, no further adjustment shall be made by the DCC to each Supplier Party's order request.
- 5.10. Where the aggregate of order requests pursuant to Clause 5.6 is fewer than 640 Cartons, the DCC shall send an email to each Supplier Party that submitted an order request to invite them to increase their order request through an additional round of requests, stating the total amount of Cartons that are available for ordering in that additional round that have not yet been requested. Each Supplier Party shall have 5 Working Days to respond in writing via email to the DCC stating whether it wants to additionally request Cartons and if so, the number that it wishes to additionally request. Where a Supplier Party does not submit an additional order request, its order request shall not be amended.
- 5.11. In respect of those Supplier Parties that do submit additional order requests, where the aggregate of the additional order requests received pursuant to Clause 5.10 does not

exceed the total Cartons that were available for ordering in the additional round, the DCC shall adjust each relevant Supplier Party's order request to reflect the additional amount requested by that Supplier Party.

- 5.12. In respect of those Supplier Parties that do submit additional order requests, where the aggregate of the additional order requests received pursuant to Clause 5.10 exceeds the total Cartons that were available for ordering in the additional round, then the following rules shall apply and the DCC shall adjust each relevant Supplier Party's order request to reflect the additional amount allocated to that Supplier Party:
- (a) the DCC shall reduce the Supplier Party's additional order request by a single Carton. This process shall be repeated until the aggregate number of additional order requests does not exceed the total number of Cartons that were available for ordering in the additional round; and
 - (b) once the rules in Clause 5.12(a) have been applied, any remaining Cartons that are available shall be randomly allocated to individual additional order requests that were reduced pursuant to Clause 5.12(a).
- 5.13. In the event that a Supplier Party's order request or additional order request is amended pursuant to Clause 5.8 or Clause 5.12, the DCC shall contact that Supplier Party by email, to inform them of the amendment, setting out the reason for the change.
- 5.14. Each Supplier Party's accepted order for 4G Communications Hubs will be set at the amount of Cartons established pursuant to completion of the process set out in Clauses 5.8 – 5.12 (inclusive). The DCC shall notify each Supplier Party in writing via email of its accepted order amount by the "Initial Pallet Orders" JIP Milestone.
- 5.15. The DCC shall deliver to each Supplier Party its accepted order of 4G Communications Hubs to the location set out in the order request, within the opening hours of that location and on the delivery date established pursuant to Clause 5.4(b)(iii).
- 5.16. The DCC and each Supplier Party acknowledges that the DCC Licence and other parts of this Code (including Section A, Section F, the CH Handover Support Materials and the CH Installation and Maintenance Support Materials) shall be amended prior to delivery to apply in respect of the 4G Communications Hubs ordered pursuant to this Clause 5 and in respect of the Services that the DCC shall be required to provide in

relation to those Communications Hubs.

6. Transitional 4G Communications Hub Forecasts and Ordering: Application of Section F (Smart Metering System Requirements)

6.1. The Transitional 4G Communications Hub Forecasting and Ordering Period is the inclusive period starting on 1 October 2024 and ending on 30 November 2025.

6.2. During the Transitional 4G Communications Hub Forecasting and Ordering Period, Sections F5.3 and F5.4 of this Code shall apply subject to the following variations in respect of forecasts for 4G Communications Hubs for the 4G Central/South Region (only):

- (a) Each Party that intends to order 4G Communications Hubs for delivery in the Delivery Months of either July 2025 or August 2025 shall submit a single submission for the forecasts in respect of each of those Delivery Months on or before 24 October 2024;
- (b) Each Party that intends to order 4G Communications Hubs for delivery in the Delivery Month of September 2025 shall submit a forecast on or before 22 November 2024;
- (c) Each Party that intends to order 4G Communications Hubs for delivery in the Delivery Months of either October 2025 or November 2025 shall submit a single submission for the forecasts for each of those Delivery Months on or before 20 December 2024;

6.3. During the Transitional 4G Communications Hub Forecasting and Ordering Period, Sections F5.7 to F5.15 shall apply subject to the following variations in respect of orders for 4G Communications Hubs for the 4G Central/South Region (only):

- (a) In respect of 4G Communications Hubs orders for any Delivery Month from July 2025 onwards, each Party shall only be entitled to submit an order once the Code is modified to remove this Clause 6.3(a), which is intended to occur following a decision by the Secretary of State to enable volume manufacturing as referenced in the “LSC: Volume M/f decision” JIP Milestone;
- (b) Once this Code is so modified, each Party that intends to order 4G

Communications Hubs for delivery in one or more of the Delivery Months of July 2025, August 2025 and/or September 2025 shall submit a single submission for the orders in respect of each of those Delivery Months no later than 11 April 2025. Where a Party has chosen to submit an intended order prior to this Code being so modified, the submitted intended order shall be treated as an order once this Code has been modified and shall be treated as if it had been made subsequent to such modification;

- (c) An order of 4G Communications Hubs for delivery in the Delivery Month of July 2025 shall have the tolerances specified in Section F5.10 applied to the forecast for this Delivery Month submitted in accordance with Clause 6.2(a) above;
- (d) An order of 4G Communications Hubs for delivery in the Delivery Month of August 2025 shall have the tolerances specified in Section F5.10 applied to the forecast for this Delivery Month submitted in accordance with Clause 6.2(a) above;
- (e) An order of 4G Communications Hubs for delivery in the Delivery Month of September 2025 shall have the tolerances specified in Section F5.10 applied to the forecast submitted for this Delivery Month in accordance with Clause 6.2(b) above;
- (f) An order of 4G Communications Hubs for delivery in the Delivery Month of October 2025 shall have the tolerances specified in Section F5.10 applied to the forecast for this Delivery Month submitted in accordance with Clause 6.2(c) above; and
- (g) An order of 4G Communications Hubs for delivery in the Delivery Month of November 2025 shall have the tolerances specified in Section F5.10 applied to the forecast for this Delivery Month submitted in accordance with Clause 6.2(c) above.

- 6.4. Where any dates of the Delivery Months referenced in Clauses 6.2 and 6.3 above are changed after a Party has submitted a Communications Hub Forecast or a Communications Hub Order associated with that Delivery Month, the Party shall not

be required to resubmit the Communications Hub Forecast or the Communications Hub Order and the DCC shall continue to process the original Communications Hub Forecast or Communications Hub Order as though the Communications Hub Forecast or Communications Hub Order was for the revised delivery dates for the relevant Delivery Month.

7. Mesh Communications Hubs

- 7.1. Once this Code has been amended to include obligations on Supplier Parties on the replacement of Mesh Communications Hubs and Special Installation Mesh Communications Hubs with 4G Communications Hubs under Appendix I (CH Installation and Maintenance Support Materials), the provisions in Clause 8.15 of Appendix I shall not apply until the end of the Initial Pallet Validation Stage (notwithstanding the other provisions of the Code).
- 7.2. Subject to Clause 7.3 below, a Supplier Party shall not replace any Mesh Communications Hub or Special Installation Mesh Communications Hub with a 4G Communications Hub until the end of the Initial Pallet Validation Stage.
- 7.3. A Supplier Party may replace a Mesh Communications Hub with a 4G Communications Hub during the Initial Pallet Validation Stage, as follows:
 - (a) Before the commencement of the Initial Pallet Validation Stage, the DCC shall make available to Supplier Parties at least one DCC contact telephone number and one DCC email address for the purposes of replacing Mesh Communications Hubs with 4G Communications Hubs;
 - (b) Before the commencement of the Initial Pallet Validation Stage, the Supplier Party may contact the DCC using the contact details in clause 7.3(a) requesting details of Mesh Communications Hubs, for which it is the Responsible Supplier, that can be replaced with a 4G Communications Hub during the Initial Pallet Validation Stage; and
 - (c) In response to a request under Clause 7.3(b), the DCC shall provide the Supplier Party with a list of Device IDs of any Mesh Communications Hubs where the Supplier Party is the Responsible Supplier and where the Mesh Communications Hub has not been an Active Mesh Gateway Communications Hub or an Active

Mesh Hop Communications Hub in the six-month period preceding the request under Clause 7.3(b), which the Supplier Party may replace with a 4G Communications Hub during the Initial Pallet Validation Stage.

8. Initial Pallet Manufacture

- 8.1. In order to send and receive messages to and from 4G Communications Hubs, the DCC will be relying on the services of a number of new DCC Service Providers. At the time of Initial Pallet Manufacture, these new DCC Service Provider roles and services will not have been defined under the SEC. In order to permit the Issuing of Device Certificates and Organisation Certificates that will support the services to be provided by these new DCC Service Providers in relation to the 4G Communications Hubs, the Systems of these DCC Service Providers shall be treated as falling within limb (a) of the Definition of DCC Live Systems, including for the purposes of Section G (Security), Section L3.16 (Device Certificates) and Section L3.18 (Organisation Certificates and OCA Certificates).

9. General Provisions Relating to Transition

- 9.1. Once this Code has been amended to include obligations on the DCC to make 4G Communications Hubs available to order under Section F (Smart Metering System Requirements), the following overriding provisions shall apply (notwithstanding the other provisions of the Code):
- (a) prior to 1 October 2024, no Party shall be required to forecast the number of 4G Communications Hubs that it intends to order except where (and to the extent that) provisions in this NETMAD specify otherwise;
 - (b) (until and unless this Code is subsequently modified) no Party shall be permitted to order any 4G Communications Hubs except where (and to the extent that) provisions in this NETMAD specify otherwise;
 - (c) (until and unless this Code is subsequently modified) the DCC shall have no obligation and shall not be permitted to manufacture or provide 4G Communications Hubs other than for the purpose of Initial Pallet Validation, and then only in accordance with the relevant provisions in this NETMAD; and

- (d) (until and unless this Code is subsequently modified) the DCC shall not be required to provide any Enrolment Services or Communications Services in relation to 4G Communications Hubs except where (and to the extent that) provisions in this NETMAD specify otherwise.

9.2. An order for a 4G Test Communications Hub submitted in accordance with Section F10 (SMETS2+ Test Communications Hubs) that was submitted prior to this Code being amended to include either:

- (a) this Clause 9.2; or
- (b) obligations on the DCC to make 4G Communications Hubs available to order under Section F (Smart Metering System Requirements),

shall be deemed to have been submitted and will be subsequently processed as though references in Section F10 to Test Communications Hubs had included 4G Test Communications Hubs at the time the order was submitted.

9.3. In the period prior to this Code being amended to introduce the concept of a 4G mobile communications technology and the 4G Central/South Region within the definitions in Section A (Definitions and Interpretations) and in SEC Section H14 (Testing Services), commencing from 5 August 2024:

- (a) the DCC shall be required to provide Device and User System Tests in accordance with Section H14 to cover all Communications Technologies utilised by the DCC in the relevant Geographical Region, as though references to Test Communications Hubs include 4G Test Communications Hubs and as though references to DCC Systems include the DCC Systems as modified to enable the provision of Services that utilise the 4G SM WAN and 4G Test Communications Hubs; and
- (b) where the Testing Services referenced in Section H14.31 are required to include the provision of a connection to a simulation of the SMETS2+ SM WAN, that simulation shall cover all Communications Technologies utilised by the DCC in the relevant Geographical Region.

10. Trust Centre Swap Out Visit

10.1. Each Large Supplier Party shall:

- (a) take all reasonable steps to undertake, in the Relevant Period, a minimum of 40 TCSO Visits which satisfy the requirements of Clause 10.2;
- (b) ensure that where a SMETS2+ Communications Hub installed at the premises is replaced with another SMETS2+ Communications Hub, the replacement is carried out in accordance with the “Trust Centre Swap Out (TCSO) Orchestration Guidance Document” published on the Website; and
- (c) provide a report to the Secretary of State on the number of TCSO Visits undertaken by it in the Relevant Period which report includes, as a minimum, the information required by Clause 10.3.

10.2. The requirements of this Clause 10.2 are that:

- (a) the Communications Hub Function, forming part of the SMETS2+ Communications Hub to be replaced, forms part of both a gas Smart Metering System and an electricity Smart Metering System which are Enrolled;
- (b) the Large Supplier Party is both the Gas Supplier and the Import Supplier for the relevant premises; and
- (c) both the gas Smart Metering System and the electricity Smart Metering System installed at the premises is one in respect of which the Large Supplier Party does not expect to have to install any new ESME, GSME, PPMID or IHD, or Commission any Device (other than the replacement Communications Hub Function and Gas Proxy Function) as part of the TCSO Visit.

10.3. The requirements of this Clause 10.3 are that the report to the Secretary of State includes, as a minimum, the following information in respect of each TCSO Visit undertaken in the Relevant Period:

- (a) the duration of each TCSO Visit;

- (b) the methodology used to calculate and determine the duration of each TCSO Visit (as provided under Clause 10.3(a));
- (c) whether or not the SMETS2+ Communications Hub installed at the premises was replaced with another SMETS2+ Communications Hub during the TCSO Visit and if not the reasons for being unable to make the replacement;
- (d) details of any issues (whether technical and/or operational) arising or encountered during the TCSO Visit, of the actions taken to address such issues (including any interaction with DCC and device manufacturers) and of the efficacy of the actions taken.
- (e) Where a Large Supplier Party undertakes a TCSO Visit prior to the date on which Clause 10.1 takes effect, that TCSO Visit may be treated as a TCSO Visit undertaken in the Relevant Period provided that that the information necessary to meet the requirements of Clause 10.3 is recorded and available in respect of that TCSO Visit.