



Communications Hubs & Networks

DCC conclusions on phase 4 regulatory
changes

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1. Introduction and context

1.1. Purpose of this document

1. The purpose of this document is to conclude on the Data Communications Company's (DCC's) September 2024 consultation¹ on provisions to facilitate the following:
 - **Enduring reporting on Mesh Communications Hubs (CHs):** Details on the enduring reporting on Mesh CHs, identifying those that have been an Active Mesh Gateway CH or an Active Mesh Hop CH in the six-month period preceding the date of issue of each report.
 - **Enrolment and Communication Services for 4G CHs:** Removal of the clause prohibiting DCC from providing Enrolment Services and Communications Services in relation to 4G CHs to facilitate Initial Pallet Validation (IPV) Go Live on 2 December 2024.
 - **Mass manufacture of 4G CHs:** Removal of clauses no longer applicable to facilitate mass manufacture of 4G CHs from 7 April 2025.
2. These changes impact Smart Energy Code (SEC) Appendix I 'CH Installation and Maintenance Support Materials' (CHIMSM) and SEC Appendix AU 'Network Evolution Transition and Migration Approach Document' (NETMAD).

1.2. DCC and the CH&N programme

3. The DCC is Britain's key enabler to a future smart energy system. DCC is licensed by the Government and regulated by the energy regulator Ofgem to connect smart meters in homes and small businesses across Great Britain to a single secure, digital network. DCC supports the roll-out of second-generation (Smart Metering Equipment Technical Specifications (SMETS) 2) smart meters, as well as the migration of existing first-generation (SMETS1) meters onto its network.
4. The Communications Hubs & Networks (CH&N) Programme is a DCC initiative to define and deliver future-proofed Communications Hubs and Networks in the Central and South Regions with an efficient supply chain and a targeted longevity of at least 15 years. To ensure this longevity of smart functionality, DCC is developing a solution to allow for the introduction of new CHs which use the 4G network. To achieve this, DCC established the CH&N Programme to assess the development and implementation of options for a 4G solution.

1.3. Previous engagement on regulatory changes

5. On 31 March 2023, DCC concluded on its initial assessment of regulatory changes that will be required for the 4G solution. In those conclusions, DCC outlined the anticipated changes required to several SEC Subsidiary Documents (SSDs), DCC owned documents and Main Body SEC changes.²
6. Based on this scoping exercise by DCC, the Department for Energy Security & Net Zero (the Department) published a consultation in September 2023 on the proposed changes to the DCC Licence and the Main Body SEC (the SEC Sections) for the 4G CH&N Programme. These changes were incorporated into the SEC in September 2024.
7. A few of the SEC changes need to be introduced in a phased manner to support the approach to 4G programme delivery, e.g. when the 4G communications service itself goes live (planned for 2 December 2024) or when the mass manufacture of 4G Communications Hubs goes live (planned for 7 April 2025). To provide clarity to industry on which requirements apply when, the NETMAD

¹ [DCC CH&N Consultation on Phase 4 regulatory changes | Smart DCC](#)

² [Conclusions on the revised delivery plan for the CH&N Programme | Smart DCC](#)

acts as a transitional document to temporarily suspend the application of enduring provisions in such situations.

8. The September 2024 consultation we are concluding on seeks to:
 - a. remove clause 9.1(d) of the NETMAD which prevents IPV go live. The Department will designate the change following an LSC go-live decision which subject to approval will permit IPV to start as planned on 2 December 2024; and
 - b. remove clauses 6.3(a) and the remainder of clause 9.1 of the NETMAD. These clauses prevent Parties ordering Communications Hubs for purposes other than IPV and the volume manufacturing of 4G Communications Hubs by the DCC. The Department will designate the changes following an LSC volume manufacturing decision which subject to approval will allow the mass manufacture of 4G CHs as planned from 7 April 2025.

1.4. Previous engagement on Mesh CHs

9. The 2/3G Mesh CH solution in the Central and South Regions provides a mechanism to extend the Wide Area Network (WAN) range to premises that are outside of cellular coverage. Some CHs that are within cellular coverage can act as a 'Gateway' to communicate with premises out of cellular coverage whilst some CHs outside of cellular coverage can act as a 'Hop' to further extend coverage.
10. DCC has been engaging with Energy Suppliers and Meter Asset Providers (MAPs) on the replacement of Mesh CHs, amongst other elements of the CH&N Programme, through a series of workshops and engagement with SEC Sub-Committees.³ The first series of workshops took place in February 2023 to June 2023 and the second series took place in November 2023 to January 2024. We have also undertaken further analysis of the potential regulatory changes required to support transitional arrangements for the coordination of 2/3G Mesh CH replacement. This engagement resulted in the proposals regarding Mesh CHs set out in our consultation issued on 24 April 2024 mentioned above. This included enduring and transitional arrangements for the replacement of Mesh CHs.
11. The enduring arrangements were included in SEC Appendix I 'CH Installation and Maintenance Support Materials' (CHIMSM) and included:
 - A clause requiring DCC to provide to Suppliers reporting on Mesh CHs active as a Gateway or Hop in the previous six-month period; and
 - A clause prohibiting Suppliers from replacing Active Mesh CH Gateways or Hops with a 4G CH until 31 December 2031.
12. On 13 June 2024, we issued our conclusions and stated that we would further engage industry on the details of the enduring Mesh CH reporting.

1.5. Consultation responses and next steps

13. The September 2024 consultation sought views on:
 - **Enduring reporting on Mesh CHs:** Details on the enduring reporting on Mesh CHs, identifying those that have been an Active Mesh Gateway CH or an Active Mesh Hop CH in the six-month period preceding the date of issue of each report. The views received and DCC's responses are covered in sections 2.1, 2.2 and 2.3 of this document.

³ [Conclusions on 4G Transition Strategy following collaborative workshops | Smart DCC](#)

- **Enrolment and Communication Services for 4G CHs:** Removal of the clause 9.1(d) of the NETMAD which prohibits DCC from providing Enrolment Services and Communications Services in relation to 4G CHs to facilitate Initial Pallet Validation (IPV) Go Live on 2 December 2024. The views received and DCC's responses are covered in section 2.4 of this document.
 - **Mass manufacture of 4G CHs:** Removal of clauses 6.3(a) and the remainder of clause 9.1 of the NETMAD which prohibit Parties ordering Communications Hubs for purposes other than IPV and the mass manufacture of 4G CHs from 7 April 2025. The views received and DCC's responses are covered in section 2.5 of this document.
14. Since the consultation closed, we have made two minor changes to the version of the NETMAD (for IPV) that we consulted on. They are:
- Clause 7.3 now reflects that DCC will share a list of all Mesh CHs with all participants in the pilot, with Supplier identities anonymised.
 - Clause 7.1 now refers to clause 8.16 of the CHIMSM (previously clause 8.15). This is due to a new clause being added in before it.
15. More detail on this change can be found in paragraph 27 below. DCC is not proposing any amendments to the CHIMSM or the NETMAD (for mass manufacture) drafting that was consulted upon.
16. DCC will submit its conclusions to the Department on 14 November 2024. Subject to the Department's approval, the CHIMSM changes and NETMAD changes for IPV are due to be designated on 2 December 2024 (or within one month thereafter). The NETMAD changes for mass manufacture changes are to be designated on 7 April 2025 (or within one month thereafter). We also note that the redesignation of the NETMAD for IPV on 2 December 2024 and the NETMAD for mass manufacture on 7 April 2025 are preceded by the Department's assessments of the respective Live Services Criteria for each milestone. The views received and DCC's responses on the designation dates are covered in sections 2.6 and 2.7 of this document.

2. Analysis of responses

17. DCC received five written responses to this consultation: four from Large Suppliers, and one from the Smart Energy Code Administrator & Secretariat (SECAS) on behalf of the Communications Transition Group (CTG) and the Operations Group (OPSG).
18. DCC has analysed the feedback provided. This section sets out an overview of the responses received to this consultation and DCC's response.

2.1. Question 1

19. DCC sought views on the proposed details for the enduring reporting on Mesh CHs.

Q1

Do you have any comments on the proposed details for the enduring reporting on Mesh CHs?

Respondent views

20. Four of the five respondents supported the proposed enduring reporting on Mesh CHs.
21. One respondent suggested there could also be value in an excerpt of the Mesh CH report being provided, which only shows those Mesh CHs which have moved from active to inactive (over a six-month period) compared to the previous month. This excerpt could prevent lookups needing to be completed against the full dataset each month. They also asked if DCC will provide reports

to Suppliers which show when an active Gateway or Hop has been removed. This will allow Suppliers to prioritise the 4G CH replacements for impacted 'Leaf' nodes.

22. One respondent suggested the following points for consideration:
- DCC provides high-level progress updates on the replacement activities at the CTG and more detailed reporting updates at the OPSG.
 - DCC uses IPV as an opportunity to test and learn. This might allow further process and/or DCC guidance material refinement.
 - DCC provides further clarity on the use of SharePoint. In particular, to clarify whether SEC Parties would access reporting at an individual SEC Party or Energy Supplier level or if this would be overall reporting.
23. One respondent recommended that DCC considers relevant options to enable and maximise the replacement of Active Mesh Gateway and Hop CHs before December 2031. They added that the IPV Stage offers an opportunity for DCC to robustly test its reporting on Mesh CHs. Doing so could identify process and reporting improvements which may accelerate the replacement of Mesh CHs and ultimately benefit consumers during the 4G transition period. Finally, they asked if the DCC reports on Active Mesh Gateway and Hop CHs will be sufficiently detailed to support planning by individual Suppliers. For example, understanding the number of devices that an individual Active Mesh Gateway CH is supporting would enable Suppliers to monitor their SMETS2 fleet and assess the timeframes for replacement of individual Gateway devices. They noted that anonymised, industry-level reporting would be insufficient for installation planning.
24. One respondent in support of the reporting advised that DCC should share the SharePoint location in advance of IPV commencing.
25. One respondent felt the proposed enduring reporting on Mesh CHs was not the right solution. Whilst they agree that Active Mesh Gateway and Hop CHs should not be replaced until 2032, they suggested the reporting mechanism should be via the 4G coverage database, not a SharePoint file. They advised that this would simplify the process considerably as it would prevent the need for Suppliers to check both the coverage checker and the proposed CSV file issued by DCC. They disagreed with DCC's suggestion that this would require a DCC User Interface Specification (DUIS) change and advised that the individual MPxNs should just be highlighted as not having 4G coverage and hence excluded from Supplier replacement activity.

DCC response

26. We acknowledge one respondent's suggestion to provide an excerpt of the report which only shows those Mesh CHs which have moved from active to inactive (over a six-month period) compared to the previous month. Whilst this would be technically feasible, it would require defining the requirements, redesigning the reporting provided by the Data Science and Analytics (DS&A) team, building this report, and cascading it out to Users. This won't be ready for the start of IPV, but we will engage with stakeholders more widely to understand if this is a change that should be considered further. Regarding the question about whether DCC will provide specific reporting on the replacement of Active Mesh CH Gateways or Hops, DCC confirms that we do not intend to provide such reporting. In cases where consumer connectivity is lost, this should be reported as an incident to the DCC's Service Management Team. Additionally, replacing an Active Mesh CH Gateway or Hop with a 4G CH would be non-compliant with clause 8.16 of the CHIMSM, which is scheduled to be re-designated on 2 December 2024. Clause 8.16 states that where a Mesh CH is:
- a. installed in premises within the 2G/3G Central region or 2G/3G South region;
 - b. removed by a Supplier Party on or before 31 December 2031;

- c. identified as having been an Active Mesh Gateway Communications Hub or an Active Mesh Hop Communications Hub in the last six months before it was removed by a Supplier Party; and
- d. that Supplier Party installs a replacement Communications Hub,

then the replacement CH installed by the Supplier Party shall not be a 4G Cellular CH.

27. DCC can confirm it will provide high-level progress updates on Mesh CH replacement activities at the CTG and more detailed reporting updates at the OPSG. We will also use IPV as an opportunity to test and refine the process for the replacement of Mesh CHs. We have since identified that the NETMAD wording around the replacement of Mesh CHs during IPV does not align with this approach. Therefore, we have updated clause 7.3(b) and 7.3(c) of the NETMAD and added clause 7.3(d), to resolve this discrepancy. These updates reflect that DCC will be providing a list of all Mesh CHs to all IPV participants taking part in the pilot, instead of DCC providing Supplier specific lists of Mesh CHs. These changes can be found in attachment 2 of this document.
28. Regarding one respondent's question around detail of the reporting, DCC can confirm the CSV file will contain a 'parent' column. By filtering to a single globally unique identifier (GUID), the report will list the GUIDs that are dependent upon that 'parent' Mesh CH.
29. DCC can confirm that the SharePoint locations have already been shared. These can be located in the 'Miscellaneous' sub-folder in the 'General' folder in each SEC Party's Library on DCC's SharePoint site: <https://capitaitservices.sharepoint.com/sites/LIVEDCC/Reports/>. A Report Guide can also be found in the "Information For SEC Parties/Reports/Report Guides" area of the DCC SharePoint site: <https://capitaitservices.sharepoint.com/sites/LIVEDCC/PARTIES/InformationforSECParties/Reports/ReportGuides>.
30. DCC acknowledges one respondent's view that the provision of a CSV file via SharePoint is not the right solution. DCC has since spoken to this respondent who acknowledged the proposed CSV file solution should not be prevented from going live to enable DCC to provide Mesh CH reporting in the short-term. However, they still considered a coverage checker solution must be provided as an enduring solution. As noted in previous consultations, DCC cannot implement a coverage checker solution in time for the reporting start date on 1 January 2025 regardless of whether a DUIS change is required. This is because DCC must undertake appropriate engagement with its Service Providers and because the change would need to be tested and implemented. We also note the same respondent's suggestion that the individual MPxNs should be highlighted as not having 4G coverage in the coverage checker. However, due to data protection requirements DCC cannot share MPxNs. Therefore, the Mesh CH data that DCC is providing will list GUIDs, ensuring compliance with data protection requirements. This would also need to be the case in a coverage checker solution. As noted in our September 2024 consultation, DCC will engage Users further to better understand their requirements. In line with the Technical Architecture and Business Architecture Sub-Committee's (TABASC's) feedback, we are currently investigating ways of providing information on Mesh CHs within the coverage checker without impacting the DUIS. However, we cannot guarantee this will be possible. We will present our findings on this analysis to the TABASC and the OPSG in February 2025. Following this, we will also present a timeline for how we could deliver the solution should Parties consider a solution should be taken forward.

2.2. Question 2

31. DCC sought views on the legal drafting in SEC Appendix I (CHIMSM) for the enduring reporting on Mesh CHs.

Q2

Do you have any detailed comments on the legal drafting in SEC Appendix I (CHIMSM)? Please provide your rationale.

Respondent views

32. Four of the five respondents agreed with the proposed legal drafting to support the enduring reporting on Mesh CHs and provided no further comments.
33. One respondent did not agree with the legal drafting as they did not agree with the reporting solution proposed as noted in their response to question 1 of this consultation.

DCC response

34. We acknowledge one respondent's disagreement with the proposed legal drafting. We have since discussed with this respondent who agreed that the legal drafting meets the intent of the proposed CSV file solution and that it shouldn't be prevented from going live as a short-term solution. To facilitate Suppliers' coordination of Mesh CH replacement from 1 January 2025, DCC needs to provide Suppliers with information on the connectivity status of Mesh CHs. The CSV file will enable this, and we consider the legal drafting reflects the details of the reporting. Please refer to paragraph 30 above for our next steps on the analysis of making Mesh CH reporting available via the coverage checker.
35. As noted in the consultation, we intend for the CHIMSM changes to be designated on 2 December 2024 (or within one month thereafter).

2.3. Question 3

36. DCC sought views on whether it should continue to assess a change to make Mesh CH data available via the coverage checker.

Q3

Do you agree DCC should continue to assess the change to make Mesh CH data available via the coverage checker? Please provide your rationale.

Respondent views

37. All five respondents agreed that DCC should continue to assess a change to make Mesh CH data available via the coverage checker.
38. One respondent noted the benefits of this change would be long-lasting, with ample time to create value, potentially outweighing initial costs.
39. One respondent noted that Mesh CH data included in the coverage checker would allow their engineers to check before exchanging the CH in a customer's premise. They added that if a Mesh CH has communication issues, then they would need to take a balanced view on the resolution. They noted it is unlikely that engineers will keep Mesh CHs in vans in the long term. Therefore, swapping a non-communicating CH for a 4G CH might be the only option for Suppliers. Finally, they considered the latest date the coverage checker should be updated is in the November 2025 SEC Release, otherwise it could slow down the 4G CH rollout.
40. Three respondents highlighted that DCC need to engage Suppliers, the TABASC and the OPSG on its proposals.

DCC response

41. We welcome respondent's views in support of DCC continuing to assess a change to make Mesh CH data available via the coverage checker. As noted above, we are currently investigating a way to make this available whilst minimising the impact on the DUIS in accordance with the TABASC's recommendation. We will present our findings on this to the TABASC and the OPSG in February 2025.
42. Regarding a respondent's comment suggesting there may be scenarios in which they have no option but to replace a Mesh CH with a 4G CH; as noted above, the replacement of an Active Mesh CH Gateway or Hop with a 4G CH would be non-compliant with clause 8.16 of the CHIMSM which is due to be re-designated on 2 December 2024. This clause is set out in our response to question 1 above.
43. Once we have compiled an assessment of the provision of Mesh CH data via the coverage checker, we will engage with Suppliers, the TABASC and the OPSG on our proposals to facilitate this.

2.4. Question 4

44. DCC sought views on the legal drafting in SEC Appendix AU (NETMAD) to facilitate IPV Go Live.

Q4

Do you agree with the proposed removal of Clauses 9.1 (a) and 9.1(d) from the NETMAD to enable the provision of Enrolment Services and Communications Services for IPV Go Live? Please provide your rationale.

Respondent views

45. All five respondents agreed with the proposed legal drafting to enable the provision of Enrolment Services and Communications Services for IPV Go Live and provided no further comments.

DCC response

46. We acknowledge the support for the proposed removal of Clauses 9.1 (a) and 9.1(d). As noted in our response to question 1 above, we have made changes to the version of the NETMAD (for IPV) that we consulted on to resolve a discrepancy found in in clause 7.3 around the replacement of Mesh CHs during IPV. These changes can be found in attachment 2 of this document.

2.5. Question 5

47. DCC sought views on the legal drafting in SEC Appendix AU (NETMAD) to facilitate mass manufacture of 4G CHs.

Q5

Do you agree with the proposed removal of Clauses 6.3(a), 9.1(b) and 9.1(c) to enable the ordering and mass manufacture of 4G CHs? Please provide your rationale.

Respondent views

48. All five respondents agreed with the proposed legal drafting to enable the ordering and mass manufacture of 4G CHs and provided no further comments.

DCC response

49. We acknowledge the support for the proposed removal of Clauses 6.3(a), 9.1(b) and 9.1(c) and have made no changes to the version of the NETMAD that was consulted upon.

2.6. Question 6

50. DCC sought views on the redesignation date of the NETMAD and the CHIMSM to incorporate the provisions to facilitate IPV Go Live and for the enduring reporting on Mesh CHs.

Q6

Do you agree with the proposed redesignation date for the NETMAD and the CHIMSM of 2 December 2024 (or as soon as reasonably practicable within one month thereafter)? Please provide your rationale.

Respondent views

51. Four of the five respondents agreed with the proposed redesignation date for the NETMAD to enable IPV Go Live and the CHIMSM and provided no further comments.
52. One respondent noted the NETMAD and the CHIMSM should only be redesignated once the question over the use of the 4G Coverage checker for Mesh CH reporting has been resolved.

DCC response

53. As noted in the consultation, we intend for both NETMAD (for IPV) and the CHIMSM changes to be designated on 2 December 2024 (or within one month thereafter). The redesignation of the NETMAD for IPV will be subject to the Department's assessment of the Live Services Criteria on 27 November 2024. We consider the CHIMSM changes relating to the reporting on Mesh CHs should be designated regardless of the Live Service Criteria decision on 27 November 2024.
54. We note one respondent's view that these designations should wait until a decision has been taken on whether to include Mesh CH reporting in the 4G coverage checker. DCC has since discussed with the respondent in question, and they agree that the designation of the proposed legal drafting should not be delayed enabling a short-term solution to Mesh CH reporting. However, they consider a coverage checker solution must be provided as an enduring solution. We note that delaying the NETMAD changes would delay IPV Go Live as a whole. In addition, delaying the CHIMSM changes would not provide DCC any regulatory cover to produce the enduring Mesh CH reporting included in the consultation. The designation of these changes does not stop DCC from investigating a 4G coverage checker solution, and should one become available which industry agrees has a viable business case, DCC will consult on further changes to the SEC to make this available.

2.7. Question 7

55. DCC sought views on the redesignation date of the NETMAD to facilitate mass manufacture of 4G CHs.

Q7

Do you agree with the proposed redesignation date for the NETMAD of 7 April 2025 (or as soon as reasonably practicable within one month thereafter)? Please provide your rationale.

Respondent views

56. All five respondents agreed with the proposed redesignation date for the NETMAD to enable mass manufacture of 4G CHs. Although not a part of this consultation, one respondent noted they agreed with the existing NETMAD provision that Suppliers shall not be required to resubmit their forecasts or orders should any of the 4G CH Delivery Months referenced in the NETMAD change.

DCC response

57. As noted in the consultation, we intend for the NETMAD changes to facilitate mass manufacture of 4G CHs to be designated on 7 April 2025 (or within one month thereafter). We note that this would also be subject to the Department's assessment of the Live Services Criteria for mass manufacture on 7 April 2025.

3. Summary of drafting changes

58. After reviewing the responses received, DCC is not proposing any changes be made to the version of the CHIMSM or the version of the NETMAD (for mass manufacture) that was consulted upon. These versions can be found in Attachments 1 and 3 to this document.
59. As noted above in our response to questions 1 and 4 above, we have made two minor changes to the version of the NETMAD (for IPV) that we consulted on to resolve a discrepancy found in clause 7.3 around the replacement of Mesh CHs during IPV. They are:
- Clause 7.3 now reflects that DCC will share a list of all Mesh CHs with all participants in the pilot, with Supplier identities anonymised.
 - Clause 7.1 now refers to clause 8.16 of the CHIMSM (previously clause 8.15). This is due to a new clause being added in before it.
60. These changes can be found in attachment 2 of this document and will be designated on 2 December 2024 (or within one month thereafter).

4. Next steps

61. DCC is of the view that it has had appropriate engagement and consultation with industry on the updates that have been proposed to the CHIMSM and the NETMAD in the September 2024 consultation. As the majority of responses to the consultation and engagement in industry were supportive of the proposed changes, DCC will submit the proposed changes to the Department for designation into the SEC. Subject to the Department's approval, the CHIMSM changes and NETMAD changes for IPV are due to be designated by the Department on 2 December 2024 (or within one month thereafter). The NETMAD changes for mass manufacture changes are to be designated by the Department on 7 April 2025 (or within one month thereafter). As noted above, the redesignation of the NETMAD for IPV on 2 December 2024 and the NETMAD for mass manufacture on 7 April 2025 are preceded by the Department's assessments of the respective Live Services Criteria for each milestone.
62. DCC has, where necessary, addressed the comments that have been received from industry. DCC does not believe that the views expressed result in fundamental amendments to the CHIMSM or the NETMAD drafting and, as such, further consultation is neither necessary nor appropriate.
63. In summary, DCC considers that the revised CHIMSM and NETMAD is fit for purpose.

5. Attachments

- **Attachment 1:** Proposed changes to SEC Appendix I (CHIMSM)
- **Attachment 2:** Proposed changes to SEC Appendix AU (NETMAD) for IPV
- **Attachment 3:** Proposed changes to SEC Appendix AU (NETMAD) for mass manufacture