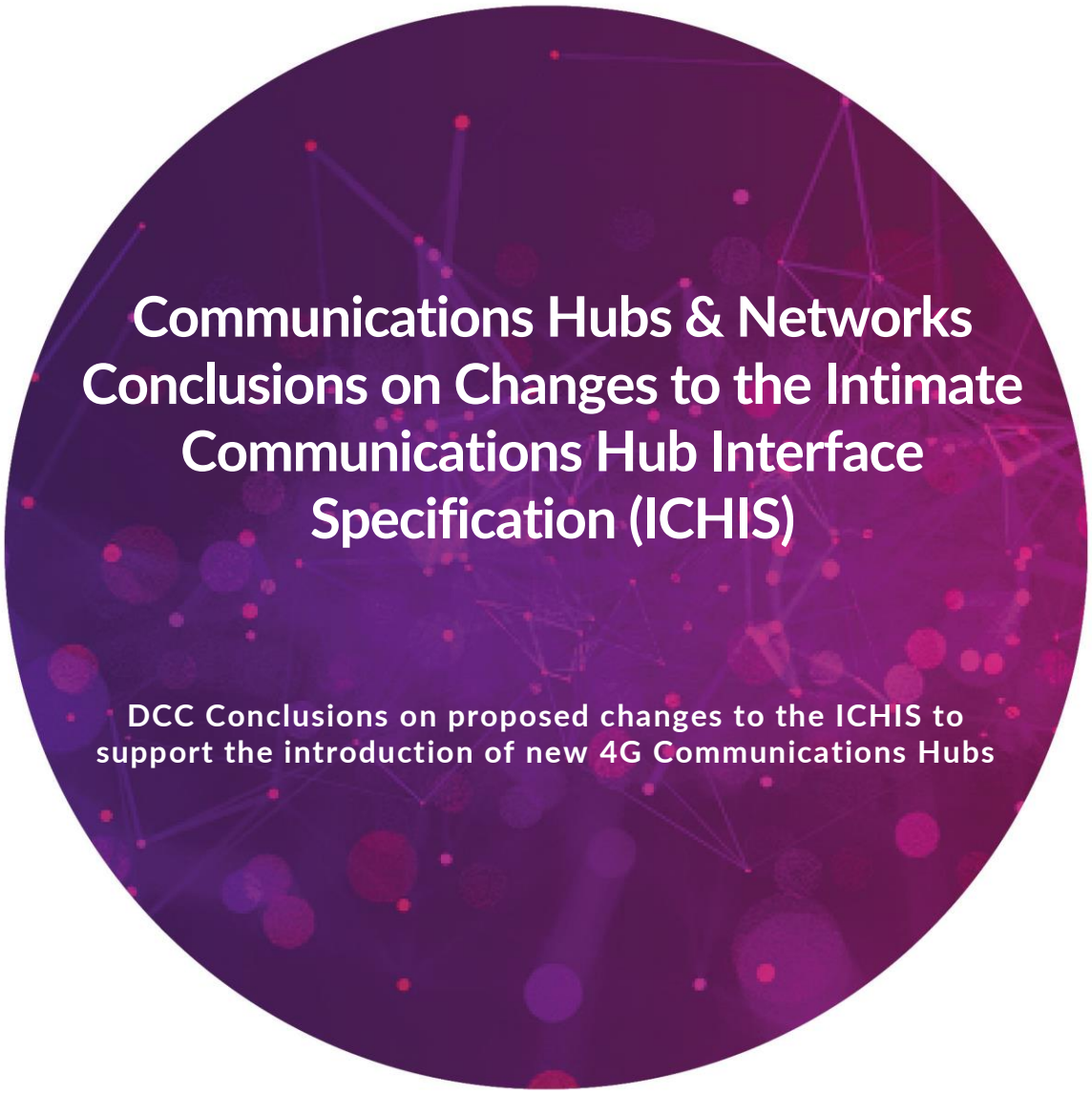
Data Communications Company



Communications Hubs & Networks Conclusions on Changes to the Intimate Communications Hub Interface Specification (ICHIS)

DCC Conclusions on proposed changes to the ICHIS to support the introduction of new 4G Communications Hubs

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1. Executive Summary

1.1. DCC and the CH&N programme

1. The Data Communications Company (DCC) is Britain's digital energy spine, supporting the transformation of the 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 (SMETS2) smart meters, as well as the migration of existing first-generation (SMETS1) meters onto our network.

2. The Communications Hubs and Networks Programme (CH&N) is a DCC initiative geared towards defining and delivering future-proof Communications Hubs & 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 Communications Hubs (CHs) which use the 4G network. To achieve this, DCC established the CH&N Programme to assess development and implementation options for a 4G solution.

1.2. ICHIS and RF noise

3. As part of the CH&N Programme[1], DCC committed to publish by 10 January 2024 the updated Intimate Communications Hub Interface Specification (ICHIS) with Radio Frequency (RF) noise limits for 4G CHs. ICHIS defines the mandatory features required to ensure that an Intimate Communications Hub can be used with any ICHIS compliant Host (the side of an ICHIS interface which provides power and physical mount for a device). It defines a common interface between the Communications Hub and Electricity Smart Metering Equipment (ESME).

4. The Smart Energy Code (SEC) Section H12.5 requires the DCC to keep the ICHIS under review to ascertain whether the specification remains fit for purpose as envisaged by the SEC. As set out in the CH&N delivery plan, DCC committed to consult stakeholders on whether they consider the updated specification to be fit for purpose for the introduction of 4G CHs.

5. In December 2023 DCC issued a consultation[2] seeking views on proposed changes to the ICHIS to support the introduction of 4G CHs, including setting a new RF noise limit for new installations in the Vodafone 4G frequency band. DCC also set out its intention in the consultation to provide further information on its plan to engage with industry in relation to installed devices and future flexibility.

1.3. Decision and next steps

6. The consultation closed on 4 January 2024 and DCC received 13 responses. Based on stakeholder feedback, DCC is publishing the ICHIS with the proposed changes as set out in the consultation. This means setting the 3dB RF noise limit for new installations in the new frequency band (801-811MHz). This position was supported by the majority of respondents.

7. DCC reiterates its commitment to work closely with industry in relation to installed devices and future flexibility. Based on feedback, DCC will seek input on its proposed workplan from the appropriate forums, including the ICHIS Working Group and SEC Sub-Committees prior to providing an initial plan to wider industry (no later than the 31 January 2024). This plan will include information on future testing, engagement and consultation activities. DCC recognises the importance of this work and the importance of delivering an outcome in time to support customers' ability to undertake both new installations and Communications Hub Replacement activities within Initial Pallet Validation (IPV). DCC will ensure any plan supports this outcome.

[1] Conclusions on the revised delivery plan for the CH&N Programme | Smart DCC
[2] CH&N Consultation on changes to the ICHIS | Smart DCC

2. Consultation Questions & Responses

2.1. Questions

8. The consultation presented the consultation questions as set out in Table 1.

Q1	Do you agree with DCC's proposal to amend the ICHIS Part F2.0, Part F4 and Appendix A to include the new frequency band (801-811 MHz) and new CHAS unit? Please provide your rationale.
Q2	Do you agree that the 801–811MHz noise limit should be set based on the approach taken by the DCC? Please provide your rationale.
Q3	Do you agree with the proposed noise limit of 3dB for the 801–811MHz frequency band as set out in the draft ICHIS v3.0? Please provide your rationale.
Q4	Do you agree with DCC's intent to include noise limits for LTE Bands other than Vodafone in a future version of the ICHIS? Do you have a view on an appropriate timeline for doing so taking account of testing and implementation? Please provide your rationale.

Table 1 – Consultation questions

2.2. Responses

9. DCC received written responses from thirteen parties including Energy Suppliers, Meter Asset Providers (MAPs), Device Manufacturers and industry governance groups.

3. Analysis of Responses

10. DCC has analysed the feedback provided. This section sets out an overview of the responses on the topic and DCC's response.

3.1. Question 1

11. DCC sought views on the addition of a new frequency band asking: **"Do you agree with DCC's proposal to amend the ICHIS Part F2.0, Part F4 and Appendix A to include the new frequency band (801-811 MHz) and new CHAS unit? Please provide your rationale."**.

Respondent Views

12. Ten of the respondents agreed with the DCC's proposal to amend the ICHIS to include the new frequency band (801-811 MHz) and new Communications Hub Antenna Structure (CHAS) unit. Respondents noted that this is necessary to support the introduction of a new 4G CH and provides certainty for industry and assurance going forward to mitigate for any impacts on the Smart Metering Wider Area Network (SM WAN) operation. One respondent additionally noted that, based on the work completed by the DCC, this would appear to be an appropriate limit.

13. One respondent also welcomed the approach to testing outlined, with a new CHAS unit and testing carried out by Plextek in line with previous testing. They noted the need to avoid the issues seen in the original Radio Frequency (RF) noise scenarios.

14. Another respondent agreed with the update under the assumption that the new 4G CH will therefore meet all the current requirements specified in other sections, specifically Part B, C and E.

15. Whilst also agreeing with the proposal, one respondent questioned how the Host Devices installed before March 2022 (under the derogation agreement) be treated regarding the 4G ICHIS and the requirements introduced in Part F4 and Appendix A. They requested clarity on whether there is an expectation that devices installed during the derogation that do not meet the 4G RF Noise requirements will need to be replaced. They further noted that it is their expectation that the devices installed before March 2022 (compliantly under the derogation agreement) will not need to be replaced until their end-of-life has been reached. The respondent considered that it is not clear from the consultation document whether the DCC has considered these devices and noted that it would be useful to have a clear statement on this from the DCC so that we can plan any relevant ESME replacements at the same time as the Communications Hub Function (CHF) replacement.

16. One respondent noted that DCC had engaged with their Device Manufacture partners regarding the new frequency band but highlighted that DCC must ensure that it considers impacts to all parts of the metering estate, currently installed meters as well as newly installed meters.

17. One respondent stated that they partially agreed with the proposals but have reservations about the sufficiency of the current testing regime because:

    - the potential for interference with existing Energy Smart Appliances (ESAs) operating in similar frequencies (e.g., Zigbee, Wi-Fi) has not been adequately addressed;
    - testing should be expanded to encompass real-world scenarios with multiple ESAs present to simulate a typical home environment;
    - the lack of comprehensive testing with existing ESA deployments raises concerns about potential compatibility issues for a significant portion of the user base; and
    - the respondent witnessed this issue in a live environment, with particular ESA (Domestic Batteries) and Smart Metering Equipment Technical Specifications 1 (SMETS1) and two ESMEs.

18. Another respondent highlighted that they would need to test the Alternative Home Area Network (Alt HAN) Bridge 1 device against the new Long-Term Evolution (LTE) frequency band (801MHz-811MHz) as this band is currently only supported on the 4G CH and only the 4G CHAS needs testing. They noted that this testing (including reporting) would take two weeks and DCC will need to facilitate the testing by allocating space for Alt HAN Bridges within the new ICHIS test lab in Brabazon House.

DCC Response

19. DCC notes the support for the proposal to amend the ICHIS with the new frequency band and CHAS. We can also confirm that the new 4G CH will meet the existing ICHIS requirements specified in other parts of the ICHIS and do not intend to make any further changes to Part B, C and E.

20. DCC notes the respondent's concerns regarding existing installed Host Devices (including those during the derogation period) as defined in the ICHIS. DCC is clear that industry intend to utilise Communications Hub Replacement, leaving existing Devices in situ where possible and has not made assumptions that this will not be the case. More detail can be found in question 2.

21. Regarding the DCC's testing regime and potential interference with ESAs, as stated in Section F1.1 of the ICHIS:

    "Due to the close proximity of the Host and ICH, it is necessary to consider the influence of the Host and Device on one another in more detail than that provided by the International Standards, in which testing is carried out at 3 metres. It is important to note that the International Standards do not consider Near Field Effects which are expected to play a significant role at the distances and frequencies critical to ICH performance."

22. This effectively means that the Noise Limits applied to Host Devices within the ICHIS are for those Devices that operate in very close proximity to the Communications Hub, usually the electricity meter to which the Communications Hub is intimately mounted. DCC do not believe that ESAs can be categorised as Host Devices as per the ICHIS. Section A4.0 of the ICHIS offers guidance on what constitutes a Host Device.

23. Beyond the requirements of the ICHIS, DCC has evaluated coexistence as it relates to the three co-located radios and in particular between 4G LTE CAT1 and 868MHz Zigbee given the closeness in frequency. The outcome of the evaluation showed no impact on either radio. This was presented and discussed in the HAN/WAN Working Group on 14 July 2023.

24. DCC, in line with the Real-Life Testing Methodology (appendix to the Joint HAN Test Methodology), has also undertaken testing at the Building Research Establishment. This testing assesses the performance of the HAN in real world environments to estimate HAN range, proving that in a real-world environment, the requirements of the JTM are exceeded.

25. Regarding comments on testing of Alt HAN Bridges, DCC can confirm that testing is open to Test Participants and can be arranged using the existing process for RF noise testing. Test Participants may organise testing using the DCC Test Facilities at Brabazon House, directly with Plextek or undertake their own testing. CHAS devices are available to order from DCC in support of Device Manufacturers own testing.

3.2. Question 2

26. DCC sought views on DCC's approach on setting the noise limit asking: **"Do you agree that the 801–811MHz noise limit should be set based on the approach taken by the DCC? Please provide your rationale."**.

Respondent Views

27. The majority of respondents were broadly supportive of the approach taken by DCC in setting the 801-811 MHz noise limit for new installations, noting:

    - it uses the proven CHAS testing, benefits from existing test infrastructure and it will apply to future installations only;
    - there has been a collaborative approach taken by the DCC in respect of the engagement with ESME manufacturers to support the development of these ICHIS proposals, noting key lessons learnt for DCC from historical issues on the RF noise topic; and
    - the necessary limit is dictated by the requirements of the network and it is understood that the 4G Communications Services Provider (CSP) defined the limit for the maximum permitted level of composite noise that could be tolerated to achieve a functioning WAN.

28. Several respondents noted concerns in relation to the DCC's approach to date having focused its RF noise testing solely on SMETS2 assets currently being installed by DCC Users and has not yet considered meters already installed. Respondents noted the approach:

    - does not identify potential issues with the ESME asset variants making up a sizeable proportion of the circa 17 million SMETS2 meters already installed and operating on the DCC network;
    - effectively introduces retroactive requirements on meters that were compliant with the extant version of the ICHIS at the time of their installation or that were installed under derogation; and
    - there is no mention of testing whether the new 801-811MHz transceiver has any impact upon on the 868MHz band operation of Sub GHz HAN operation or whether the new WAN radio would have any negative impacts on Sub GHz HAN performance when the existing hubs are exchanged for 4G CHs.

29. One respondent noted that the new 4G CH will need to work with meters already installed in consumers' homes and businesses. They added there is a financial risk that ultimately will fall on Energy Suppliers and their customers if currently installed meters need to be replaced early as a result of a lowering of the current RF noise limits impacting those meters already installed (including the existing derogation arrangements). Another respondent considered that the introduction of a new CH must not result in installed meters becoming non-compliant and so the CH must be designed to work with all meters currently installed. They noted that this is particularly important as they cannot support any proposals that will result in unnecessary costs for Energy Suppliers, MAPs and ultimately Energy Consumers.

30. Another respondent noted that they expect to utilise Trust Centre Swap Out (TCSO) capabilities to replace existing 2G/3G SMETS2 CHs with a to-be 4G CH equivalent. Therefore, they stated that their default position is that existing SMETS2 meter assets will remain in situ and will be paired with the replacement 4G CH wherever possible to minimise disruption to consumers and associated cost.

31. Several respondents expected further work by the DCC on existing installs. One respondent noted that it is critical that the DCC leads and delivers a broader range of RF noise testing with Device Manufacturers to identify issues with other SMETS2 ESME variants installed prior to 2023. Another respondent stated that it is important that the implications for older meters is understood. In particular, they queried whether the new noise limits might eventuate in the early replacement of meters if the WAN connection cannot be re-established by the new 4G CH following a CH swap out due to RF noise.

32. Two respondents noted expectations that the DCC publish a clear plan and timetable for the RF noise testing of already installed ESME in Q1 2024, with subsequent work and industry engagement then progressed at pace. One of the respondents further added expectations that the DCC consider all options for existing ESME that are subject to existing RF noise derogations, rather than simply assuming these operational SMETS2 assets will be replaced by default and at cost to Energy Suppliers.

33. Two respondents disagreed with setting the limit for new installations based on the approach undertaken by the DCC. One of these respondents also noted the concerns in relation to the view that the DCC has not completed RF testing with a broad sample of electricity meters. They noted that only testing using the newest devices on the latest firmware completely ignores the several million devices on older hardware / firmware and is therefore not representative of the electricity metering estate currently in situ. The respondent considered that the 4G CH needs to be 'plug and play' with the SMETS2 devices already installed which is a business requirement of the programme.

34. The other respondent considered that the current testing approach is insufficient and should not solely be focused on Smart Meters to guarantee compatibility with the diverse ecosystem of ESAs that are very likely to be in close to the CH. This is because:

    - the testing sample size (seven Device Manufacturers) might not be representative of the entire ESA landscape;
    - the noise limit of 3dB may not be stringent enough to prevent interference with all potentially affected ESAs; and
    - conducting testing in a controlled environment without considering real-world interactions raises concerns about the generalisability of the results.

DCC Response

35. Following consideration of views provided via engagement and the consultation, DCC considers it appropriate to set the limit for the 801-811MHz frequency for new installations only. DCC further commits to working with industry to establish a plan for further work as set out in section 4 of this document.

36. DCC notes the concerns raised by respondents in relation to the existing installed meter estate and RF noise and can confirm that the DCC's approach to date has not been limited to ESMEs currently being installed. We recognise that further work is required to address existing meters not covered to date through testing. DCC confirms that an early view of the existing metering estate has been established through bilateral discussions with Device Manufacturers. This requires further validation, including to establish the degree to which further testing is required.

37. With regard to more detailed comments relating to compatibility with ESAs, DCC notes that the 3dB limit is set for Host Devices (generally ESME) and devices that are at close proximity to the CH (e.g. Alt HAN Devices). The limit is the permissible noise in the 4G LTE CAT1 band of operation that ensures WAN coverage requirements for the viability of the 4G solution are met. We also note that the further away a device is from the CH, the lesser its interference effect and vice-versa.

38. As noted in response to comments made in response to Question 2 and again in response to this question, DCC has evaluated coexistence as it relates to the three co-located radios and in particular between 4G LTE CAT1 and 868MHz Zigbee given the closeness in frequency. The outcome of the evaluation showed no impact on either radio. This was presented and discussed in the HAN/WAN Working Group.

3.3. Question 3

39. DCC sought views on the proposed noise limit for the new frequency band asking **"Do you agree with the proposed noise limit of 3dB for the 801–811MHz frequency band as set out in the draft ICHIS v3.0? Please provide your rationale.".**

Respondent Views

40. The majority of respondents reiterated their support for the proposed noise limit of 3dB for the 801-811 MHz frequency band for new installations, noting concerns and expectations in relation to RF noise limits for existing installed meters.

41. One respondent further noted that the potential financial impact on currently installed meters, if any further change to noise limits is proposed is a concern for the Communications Transition Group (CTG) members and DCC will need to ensure this risk is addressed before baselining the ICHIS. They expect industry parties (including Device Manufacturers) to comment on the appropriateness of the proposed limits for new installations, and if any further changes are proposed for currently installed meters, and whether any proposed changes pose significant risks to meters already operating in consumers' homes and businesses. Therefore, they consider that DCC must work alongside all relevant parties are part of this future activity before setting appropriate noise limits for all installations (new and existing).

42. Three respondents noted that the proposed 3dB limit is lower than the current 3.5dB limit set for 2G/3G. One of these respondents noted that the DCC has been asked to provide further statistical models and rationale for setting these values.

43. One respondent requested the rationale in defining the value 2SD and 3SD for the 801-811MHz band. They noted that neither statistical models nor rationale has been provided for the setting of those values.

44. One respondent noted that they do not have a view on whether the limit is appropriate as this should be verified by testing with assets by the DCC, 4G CH manufacturer and Device Manufactures before mass production.

45. Three respondents disagreed with the proposed limit, noting that, whilst ESME currently being installed pass the limit, they are not in a position to support the new limit without further information on the remainder of the meter estate. Another respondent considered that an appropriate noise limit cannot be established until more comprehensive testing is conducted. They emphasised that DCC

cannot set out a CH noise limit that meters subsequently must adhere to, and new CH designs need to meet existing meter specifications, not the other way around.

46. The other respondent re-stated their concerns in relation to testing scope and methodology, noting a more extensive and realistic testing regime is necessary before establishing a definitive noise limit that ensures backward compatibility and minimizes interference risks.

DCC Response

47. As set out in the DCC response to question 2, following consideration of views provided via engagement and the consultation, DCC considers it appropriate to set the limit for the 801-811MHz frequency for new installations only. DCC reiterates that the proposed RF noise limit being introduced in the version of the ICHIS consulted upon will apply to new installations only.

48. DCC can also confirm that Device Manufacturers have been provided results and statements of conformity for Devices which completed the 8-Meter test at Plextek. The outcome of testing on Devices currently being used for new installations provides no indication of issues in the Vodafone LTE Band and so DCC feels comfortable in moving forwards with setting a limit in this band for use in new installs. DCC encourages Device Manufacturers to update the SECAS maintained ICHIS Noise Results spreadsheet[3] as appropriate.

49. Furthermore, through its engagement and consultation, DCC does not expect any additional costs and expenses that are likely to arise as result of the amendment to the ICHIS to include the new frequency band and RF noise limit for new installations.

50. DCC again recognises respondents concerns around the existing meter estate and its compatibility with the new 4G CH. The approach to address these concerns will form the basis of DCC's further work, ultimately leading to a further consultation.

51. In terms of response to a detailed point raised, DCC can confirm that the 2SD and 3SD values are derived from the same Repeatability Test method that was used to define the values in the current specification. This results in a measurement of the population variance across the multiple meters tested. The pooled standard deviation is then calculated for the CHAS type. The 2SD and 3SD values are used as defined in ICHIS to set the Pass Criteria for the 8-Meter test.

52. DCC also notes that whilst the 3dB limit is lower than the current limit for 2G/3G (in the 900MHz Band), this limit only applies to the Virgin Media O2 (VMO2) WAN, which operates at a different frequency to the 4G WAN.

3.4. Question 4

53. DCC sought views on the intent to include noise limits for other LTE Bands asking **"Do you agree with DCC's intent to include noise limits for LTE Bands other than Vodafone in a future version of the ICHIS? Do you have a view on an appropriate timeline for doing so taking account of testing and implementation? Please provide your rationale.".**

Respondent Views

54. The majority of respondents agreed with the need to future proof the design of the new 4G CH solution and to enable flexibility around potential switching of Mobile Network Operators (MNO). Respondents noted:

[3] ICHIS Noise » (smartenergycodecompany.co.uk)

- there is a sizeable SMETS1 fleet that contains a significant number of assets that include MNO roaming capabilities and it is likely that a proportion of energy consumers are in areas where Vodafone coverage is intermittent or non-existent;
- the CH&N programme is promoted as a 'technology enhancement' and it would be sub-optimal if consumers with existing operational SMETS1 or SMETS2 installations lost their smart services due to the decision to select a single MNO;
- the 4G CH solution should be flexible as the solution is developed to avoid any incorrect assumptions being made which could result in significant impacts to fieldwork;
- given that Energy Suppliers will incur significant costs to re-engage consumers and secure appointments, there is an expectation that the DCC will take all reasonable steps to maximise coverage to 4G CHs to maximise the chances of a successful first-time installation and minimise the risk of adverse publicity for the DCC, the Smart Metering Implementation Programme (SMIP) and Energy Suppliers; and
- there is a need for DCC to go through a process of stakeholder engagement, and potentially a procurement process, for the use of LTE bands other than Vodafone bands and industry will need to understand what the costs are to them for the use of such bands procured.

55. One respondent considered that it is premature to include noise limits for LTE Bands other than Vodafone in a future version of the ICHIS and that DCC needs to set out a plan for the introduction of other bands and make clear to industry the timelines. The respondent noted that typically, the design, testing and production of new products is a minimum two-year process, and therefore it is advised that such notice is provided in advance of this, such that any new assets can take into account any specific design requirement.

56. One respondent also noted that the timeline should be similar to that allowed for the move from 2G/3G to 4G, assuming this does not involve meter re-design. They also considered that costs for testing meters already being deployed at this time should be borne by the DCC and Device Manufacturers should not be expected to bear the costs for changes to the wider system.

57. Several respondents reiterated that it is important that DCC considers all meter installations (new and existing) before proposing appropriate noise limits with one respondent recommending that a plan is developed with the Technical Architecture and Business Architecture Sub-Committee (TABASC) that captures the key components of what needs to be covered – including industry engagement and device testing/assurance ahead of any future changes to the ICHIS. Another respondent considered that the DCC must publish a timetable early in Q1 2024, with testing and engagement concluded at pace during Q2/Q3 2024. One respondent also assumed there would be a need for at least a year for engagement prior to the introduction of any new solutions given previous timescales.

58. Another respondent noted that it can take years for manufacturers to change their meter designs, therefore making full and early engagement with all parties critical. Moreover, the respondent highlighted that the introduction of a new CH, or change to the ICHIS requirements, must not result in any meter becoming non-compliant; the later the implications of these proposals become apparent, the more meters will have been installed and, potentially, put at risk of early replacement.

59. One respondent also stated that the DCC should consider how this retrospective addition of bands at a later stage would affect CH manufacture now with only the Vodafone 801-811MHz band being tested. For instance, they raised questions in relation to eligibility of switching and certification of Devices after they have been deployed in the field.

60. One respondent also reiterated that extending noise limits without addressing potential interference with existing ESAs could lead to significant compatibility issues and customer inconvenience and therefore collaboration with ESA manufacturers is crucial. They further recommended that the scope of interoperability testing is expanded to include a range of ESAs and ensure backward compatibility.

DCC Response

61. DCC appreciates the comments received in relation to the intent in including noise limits for LTE Bands other than Vodafone in a future version of the ICHIS. These stakeholder views will form the basis of the forward workplan and consultations in this area.

3.5. General Comments

Respondent Views

62. Three respondents provided additional comments regarding the DCC's approach to date in relation to the existing installed meter estate. They noted that the DCC must adopt a default assumption that industry will utilise TCSO capabilities to replace existing 2G/3G SMETS2 CH devices with a to-be 4G CH equivalent and leave existing operational SMETS2 meter assets in situ. This will minimise impacts to consumers over the course of the 4G rollout and environmental waste due to scrappage of functional meters.

63. They also stated that there seems to be a misconception within DCC that only new installations will take place during the early years of 4G CH availability. The respondent highlighted that at the December 2023 workshop, industry made it clear that replacement of 2G/3G CHs will commence from the IPV pilot in December 2024 onwards, so this sets a deadline for when industry requires clarity on existing meter noise limits.

64. The three respondents emphasised that the DCC must publish a clear plan and timetable early in Q1 2024 covering the RF Noise testing of other SMETS2 ESME asset variants. One of the respondents also requested that the DCC set out its plan for:

- mitigating any potential risks relating to already installed working assets noting that it is critical that DCC does not end up in a situation in future where it may need to consider asking energy suppliers to replace currently installed ESMEs;
- the future flexibility work (as referred to in question 4 of the consultation);
- further details on DCC's testing and assurance activities, including testing of ESMEs against Production CHs (given that testing so far has been against CHAS units); and
- engagement with SEC Parties/DCC Users to deliver this, including a detailed Engagement Plan listing relevant activities, timeframes and associated delivery milestones, and the detail of the engagement required with SEC Sub-Committees and DCC Users/SEC Parties.

65. One respondent provided a response that stated there is insufficient evidence to sign off on the proposed changes at this stage and it feels like industry are being driven by the plan rather than being in a position to sign off on changes which have been insufficiently tested. They noted that testing needs to be completed on more devices including those already deployed. The respondent highlighted previous ICHIS related issues and asset stranding in the early days of SMETS2 deployment and noted industry need to ensure testing is sufficient to avoid re-occurrence when 4G CHs are to be deployed.

DCC Response

66. As set out in DCC's response to question 2, DCC notes the concerns raised and these will form the basis of DCC's forward workplan.

4. Decision and Next Steps

4.1. Decision

67. DCC appreciates all the comments received in response to the consultation and has reviewed the proposed changes to the ICHIS. Based on stakeholder feedback, DCC is publishing the ICHIS with the

proposed changes as set out in the consultation. This includes setting the 3dB RF noise limit for new installations in the new frequency band (801-811MHz).

68. DCC considers that this document satisfies the DCC's requirements as set out in SEC Section H12.6. Where a party wishes to refer the DCC's decision to the Authority (Ofgem), a party may do so in accordance with SEC Section H12.7.

69. Published alongside this consultation conclusion document is the new version of the ICHIS (v3.0) which will also be published on the DCC Website. Please note that the published version contains a minor update to the 2SD and 3SD values to correct an error, changing 2SD to 1.1 to 1.2 and 3SD from 1.6 to 1.7.

4.2. Next Steps

70. DCC reiterates its commitment to further work with industry in relation to installed devices and future flexibility. Based on the feedback received, DCC will seek input on its proposed work plan from the appropriate forums including the ICHIS Working Group and SEC Sub-Committees prior to providing a further update to wider industry.

71. This plan will include information on future testing, engagement and consultation activities. DCC recognises the importance of this work and the importance of delivering an outcome in time to support customers' ability to undertake both new installations and Communications Hub Replacement activities within IPV and will ensure any plan supports this outcome.

72. DCC will present a draft plan to the CTG on 22 January 2024 and intends to share an update to wider industry via communication to Nominated Contacts on or before the 31 January 2024 which will include the outcome of engagement on the draft plan and an initial plan for the activities as mentioned above.

5. Attachments

Attachment 1: ICHIS v3.0