

# ICHIS Consultation

Consultation on proposed  
changes to the Intimate  
Communications Hub Interface  
Specification

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# 1. Introduction

The purpose of this consultation is to invite views on amendments to the Intimate Communications Hub Interface Specification (ICHIS), which is a specification required under H12 of the Smart Energy Code (SEC).

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. At its discretion the DCC may consult with Parties as to whether they consider the specification to be fit for purpose.

DCC has completed a review, with assistance from the ICHIS Working Group (WG)<sup>1</sup> and is seeking views on several amendments to the specification.

The amendments focus on changes to:

- Part C to clarify the risks and associated insulation testing with the power supply from the ICHIS Host to the ICHIS Device;
- updates to the referenced standards to ensure they are current and appropriate for the ICHIS content; and
- minor housekeeping amendments.

## 1.1. Structure of this document

This document comprises of the following sections:

- Proposed amendments to the ICHIS:
  - Part C updates and proposed new Appendix C
  - Updates to referenced standards
- Summary of the questions asked in this consultation.
- Consultation Process.
- Next steps.

<sup>1</sup> The ICHIS WG is a technical forum chaired by the DCC and attended by meter manufacturers, Communication Service Providers (CSPs), Communications Hub Manufacturers and observed by the Department for Business, Energy and Industrial Strategy (BEIS). The ICHIS WG has an advisory role in guiding DCC policy on the topic of the ICHIS.

## 2. Amendments to ICHIS Part C & Proposed Appendix C

ICHIS Part C sets out the requirements for the provision of Direct Current (DC) Power from the Host (Electricity Smart Metering Equipment (ESME) or Communications Hub Hot Shoe) to the Communications Hub.

The insulation and general test condition requirements are currently set out in ICHIS Part C2.1.1. Following review by the ICHIS WG and BEAMA,<sup>1</sup> DCC proposes refining the test requirements in line with BS EN 62052-31<sup>2</sup> and including the requirements in a new Appendix (C).

We propose clarifying that testing can be applied to a Communications Hub without an ESME and can therefore be treated as the Equipment Under Test (EUT) without an ESME present.

The proposed new Appendix C will reference both BS EN 50470-1<sup>3</sup> and BS EN 62052-31 highlighting the relevant sections of the standards. The Appendix C will note that:

- BS EN 62052-31 section 6.10.4.2 specifies the humidity preconditioning that should be undertaken before testing;
- BS EN 62052-31 section 6.10.4.3.2 provides the test method and option b should be used (an illustration will also be included to also demonstrate the insulation test between a foil cover and ICHIS power input);
- BS EN 62052-31 6.10.4.3.3 specifies where the impulse voltage should be applied;
- BS EN 62052-31 6.10.2.3 specifies the impulse characteristics (noting the impulse voltage reference is 4kV);
- BS EN 62052-31 6.10.4.3.3 defines the impulse voltage testing; and
- BS EN 62052-31 6.10.4.3.4 specifies where the AC voltage should be applied (referencing Table 25 and Table 11).

The Communications Hub dielectric tests are comparable to the ESME except the Communications Hub test does not require the internal surge test as the ICHIS power does not have a 240V differential internally. DCC therefore proposes specifying that the testing shall be applied between the ICHIS connection and the external surface with all ICHIS pins linked together for the test and noting that the testing does not need to include the in-circuit surge tests.

Due to the proposed new Appendix C, DCC also recommends that the current content in Parts C2.1.1 and C2.1.2 are removed and instead the new Appendix C is referenced.

Part C1.3.1 is a guidance section that provides more detailed guidance for Device Manufacturers in relation to power supply safety. Currently, this section specifies that the Host shall pass the insulation tests specified in BS EN 50470-1, however, as it is proposed that the tests are covered in Part C2.1 to C2.6 (and the new Appendix C) DCC recommends that this reference is updated to refer to these parts of the ICHIS and the reference to the tests in BS EN 50470-1 is removed.

<sup>1</sup> British Electrotechnical and Allied Manufacturers Association

<sup>2</sup> Electricity metering equipment (AC). General requirements, tests and test conditions. Product safety requirements and tests.

<sup>3</sup> Electricity metering equipment (a.c.). General requirements, tests and test conditions.

DCC also proposes expanding on the testing requirements for Communications Hub Hot Shoes. Previous versions of the ICHIS included Communications Hub Hot Shoe requirements in Parts C2.5 and 2.6, however, these parts referenced the Communications Hub tests. Communications Hub Hot Shoes require more extensive testing (i.e. to also include the in-circuit surge test not required on a Communications Hub). Therefore, DCC proposes adding requirements that specify that:

- it is the responsibility of the Hot Shoe manufacturer to ensure safe operation of the installation;
- a Hot Shoe shall comply with the Electromagnetic Compatibility (EMC) requirements set out in BS EN 61204-3; and
- a Hot Shoe shall comply with the insulation testing in BS EN 62052-31 for the dielectric tests aligned with the ESME.

DCC has removed the reference to Hot Shoes in Part C2.6 as the requirements are now set out in Part C2.5. This section is now limited to Adapters and Cradles and specifies that they should comply with the dielectric tests specified in BS EN 62052-31.

DCC is seeking responses to the following questions in relation to the amendments to the ICHIS:

**Q1: Do you agree with the proposed new Appendix C and its content? Please provide rationale for your views.**

**Q2: Do you agree with the changes made to Part C? Please provide rationale for your views.**

### 3. Amendments to Referenced Standards

References to standards relevant to the interface between the Host and the Communications Hub are currently set out in Part A3.0. The ICHIS WG have reviewed these standards to ensure they are relevant and still current. Following review, DCC propose the following changes:

Standard Number	Proposed Change
BS EN 55032:2015	This standard was updated in 2020 and so DCC proposes amending to BS EN 55032:2015+A11:2020. DCC and the ICHIS WG also reviewed whether the changes have an impact on ICHIS content and can confirm that there is no impact.
BS EN 60529	This version was included as a typographical error in ICHIS v2.0 and therefore DCC proposes to remove this standard from the table.
BS EN 60060-1:2010	DCC proposes replacing the standard with BS EN 62052-31:2016 as this is now the referenced standard for insulation testing from BS EN 50470-1.

**Q3: Do you agree with the proposed changes to the reference standards? Please provide rationale for your views.**

## 4. Summary of Consultation Questions

Number	Consultation Questions
Q1	Do you agree with the proposed new Appendix C and its content? Please provide rationale for your views.
Q2	Do you agree with the changes made to Part C? Please provide rationale for your views.
Q3	Do you agree with the proposed changes to the reference standards? Please provide rationale for your views.

## 5. Consultation Process

This consultation closes at 17:00 on Friday 26 February 2021. Please email your response to [consultations@smartdcc.co.uk](mailto:consultations@smartdcc.co.uk).

Contents of responses may be (where not marked confidential) shared with other stakeholders. Please state whether all or any part of your response is confidential. Please note that responses in their entirety (including any text marked confidential) will be shared with the Department for Business, Energy and Industrial Strategy (BEIS) and may be made available to the Gas and Electricity Markets Authority (the Authority).

If you have any questions in relation to this consultation, please contact [regulation@smartdcc.co.uk](mailto:regulation@smartdcc.co.uk).

## 6. Next Steps

Following the closure of this consultation, DCC will consider respondent's views and, subject to the consultation responses received, publish v2.3 of the ICHIS.