



Department for  
Business, Energy  
& Industrial Strategy

Department for Business,  
Energy & Industrial Strategy  
1 Victoria Street,  
London SW1H 0ET

[www.gov.uk/beis](http://www.gov.uk/beis)

The Authority (Ofgem), the SEC Panel, SEC Parties and other interested parties 20 December 2017

Dear Colleague,

## **SMART METERING IMPLEMENTATION PROGRAMME CONSULTATION ON CHANGES TO THE SMART ENERGY CODE (SEC) RELATED TO PROVISION OF COMMUNICATIONS HUBS**

This consultation seeks stakeholder views on changes to the Smart Energy Code (SEC) related to provision of Communications Hubs (CH). It covers:

- Arrangements in relation to the introduction of Dual Band Communications Hubs (DBCH). This covers the treatment of the associated development and incremental costs. We propose adjustments to arrangements for development costs and changes to charging arrangements for the recovery of DBCH incremental costs. This section also covers arrangements for the provision of CH in the Fylingdales area (detail set out at **Annex A**).
- Configuration Settings where we propose including requirements for including DBCH configuration settings tables in the SEC and seek views on the process for changing these. Our proposal is that changes should be subject to the usual modification process already provided for under the SEC (detail set out at **Annex B**).

Where appropriate, revised SEC drafting is provided for comment within the Annexes. Subject to consideration of consultation responses, the revised drafting will be introduced into the SEC using the Secretary of State's Section 88 Energy Act 2008 powers, subject to completion of the necessary parliamentary processes.

### **Timing**

Responses to this consultation should be submitted **by 17:00 Monday 12 February 2018**.

### **Responding to this consultation**

Comments on these proposals should be submitted to: [smartmetering@beis.gov.uk](mailto:smartmetering@beis.gov.uk) or addressed to:

Smart Metering Implementation Programme – Regulation,  
Department for Business, Energy & Industrial Strategy,  
5<sup>th</sup> Floor, Orchard  
1 Victoria Street,  
London SW1H 0ET

Information provided in response to this consultation, including personal data, may be subject to publication or release to other parties, or to disclosure in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2000, the Data Protection Act 1998 and the Environmental Information Regulations 2004).

BEIS may publish the individual responses to this consultation and you should therefore let us know if you are not content for your response or any part of it to be published. If you indicate that you do not want your response published, we will not publish it automatically but it could still be subject to information requests as detailed above. If you do not want your individual response to be published, or to otherwise be treated as confidential, please say so clearly in writing when you send your response to the consultation. For the purposes of considering access to information requests, it would also be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.

Yours faithfully,



**Duncan Stone**  
Head of Delivery  
Smart Metering Implementation Programme

#### **List of Annexes to this letter<sup>1</sup>**

<b>Annex A</b>	Proposed SEC changes relating to the introduction of Dual Band Communications Hubs
<b>Annex A.1</b>	Legal drafting – introduction of Dual Band Communications Hubs (annexed as a separate document)
<b>Annex B</b>	Introduction of configuration settings for Dual Band Communications Hubs
<b>Annex B.2</b>	Legal drafting – configuration setting (annexed as a separate document)
<b>Annex C</b>	List of consultation questions

<sup>1</sup> This letter and accompanying documents can also be found at:  
[https://smartenergycodecompany.co.uk/?post\\_type=news&p=3818&preview=true](https://smartenergycodecompany.co.uk/?post_type=news&p=3818&preview=true)

## **ANNEX A: PROPOSED SEC CHANGES RELATING TO THE INTRODUCTION OF DUAL BAND COMMUNICATIONS HUBS (2.4GHZ AND SUB GHz<sup>2</sup>)**

Dual Band Communications Hubs (DBCHs) are designed to have a greater propagation range (within typical premises) than Single Band Communications Hubs (SBCHs) and are designed to establish a Home Area Network (HAN) in premises where the gas meter or IHD is situated from the Communications Hub (CH) at distances beyond those reliably served by SBCHs. It is expected that a DBCH will be required for technical reasons in around one quarter of all premises.

### *Charging*

Under the current Charging Methodology, the SEC (Section K) requires device development costs to be recovered, on an enduring basis, through the DCC's Fixed Communications Hub Charge, which recovers costs from Energy Suppliers pro-rata, based on the number of Smart Metering Systems that each supplier has enrolled. The current Charging Methodology also covers recovery of incremental costs (that is those costs over and above the cost of a SBCH), which are currently recovered as a one-off up-front charge on SEC Parties ordering a DBCH<sup>3</sup>.

As indicated in DCC's consultation on Release 2.0 of 25 July 2017, the cost of DBCH (development cost – as a share of Release 2 costs – and unit or incremental costs) is expected to be higher than envisaged when the charging policy was originally formulated, for reasons set out in that document. Given the materiality of the difference in unit costs, which DCC confirmed through additional testing in the open market, we are proposing to update the current policy on DBCH charging and introduce a transitional mechanism for the recovery of costs prior to completion of mass rollout.

We consider that the current enduring approach whereby fixed DBCH development costs are recovered from Energy Suppliers pro-rata via a fixed charge, based on the number of Smart Metering Systems that each supplier had enrolled, is still appropriate. This is because once the development cost of DBCHs has been incurred and is 'sunk' it will have no impact on the marginal cost of production of an additional DBCH. We do not propose to change this general approach, however some adjustments to the algebraic calculations are needed so fixed charges as they apply to different CH variants are clear. In addition some changes to section K7.5 covering stock levels and returns are needed to enable differentiation between CHs with different costs.

Given the increase in DBCH incremental costs, we are of the view that the current method of cost recovery (based on an additional charge at the point of order) for the

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<sup>2</sup> The 863 – 876 MHz and 915 – 921 MHz harmonised frequency bands

<sup>3</sup> An Explicit Charge set out in K7.5(m) as the 'CH Variant Charge'

full incremental costs is no longer appropriate. Whilst a relatively small up-front charge may have been acceptable as an Explicit Charge, we are of the view that with a more material up-front charge, this is no longer the case. This is because a supplier that orders a DBCH (or on whose behalf it is ordered) would have to bear the full incremental capital cost even if the consumer, in whose premises the DBCH was installed, subsequently churned to another supplier. Such a charging methodology would therefore place new-entrant suppliers at a competitive advantage relative to installing suppliers. This approach would therefore be in conflict with the Charging Objective in DCC Licence Condition 18.17(a) (facilitation of competition in supply). We instead therefore propose that the incremental costs should be amortised and charged on a monthly basis to those suppliers that use DBCH.

### *Fylingdales*

In its 25 July 2017 consultation and subsequent response the DCC also set out proposals relating to the provision of CH in the Fylingdales area of North Yorkshire where the standard wide area network communications network for smart metering is not appropriate. The DCC concluded that only DBCH would be provided in this area for the reasons set out in the consultation and response. To facilitate this, Section F of the SEC needs to be amended so that the DCC does not have to provide SBCH in this area.

The following changes to the SEC are proposed:

- Section K will be adjusted in relation to the recovery of development costs so it is clear that fixed charges may apply to different CH variants.
- Changes to 'CH stock level charge' in K7.5(l), 'CH returned and redeployed' in K7.5(o) and 'CH returned not redeployed' in K7.5(p) to recognise different CH variants.
- Section K will be changed such that the incremental costs of are recovered through a monthly charge on all suppliers.
- Section F will be changed such that the DCC does not have to provide a SBCH in the Fylingdales area.

<b>Consultation questions</b>	
1	Do you agree with the proposal to amend the charging policy for Dual Band Communications Hubs? Where possible, please provide a rationale.
2	Do you agree with the proposed legal drafting changes covering incremental and development cost recovery? (Annex A.1)
3	Do you agree with the proposed legal drafting covering the provision of CHs in the Fylingdales area? (Annex A.1)

## **ANNEX B: INTRODUCTION OF CONFIGURATION SETTINGS FOR DUAL BAND COMMUNICATIONS HUBS (2.4GHZ AND SUB GHz)**

The Sub GHz bandwidth is limited and there is a risk around the functionality of the Sub GHz HAN frequency in dense urban deployments. The risk is that should the bandwidth become overloaded due to a local density of Sub GHz devices, then consumers and DCC Users could experience delayed or failed updates. In addition, this could lead to the gas meter undertaking an increased number of rescans to find the quietest channel, which would lead to increased battery drainage. Inconsistency in configuration settings<sup>4</sup> at installation and subsequently could lead to more complex diagnostics as the settings for affected devices would need to be remotely read as a first step.

### *Configuration settings tables*

To counter these risks, BEIS proposes to introduce into the SEC configuration settings, at delivery, first install and thereafter, for CHs which use (or are capable of using) the Sub GHz HAN frequency.

We propose that there should be two categories of configuration setting tables, one to cover the settings that DBCHs should have when shipped to SEC Parties (and which will be DCC's responsibility) and one to cover the settings that DCBHs should have once installed (and which will be the responsibility of each supplier(s)). These tables will be set out as part of the SEC. The tables will allow for situations where different settings are required for different subsets of devices, for example based on (but not limited to): postcode; equipment model type; or type of property, however it is initially proposed to require a single set of settings for all DBCHs.

The DBCH settings are based on those possible and defined in CHTS and GBCS, and agreed through discussion within the TBDG 868 Sub-Group. Changes to configuration settings do not necessitate design changes for a DBCH designed to CHTS and GBCS; and they do not necessitate changes to DCC Systems.

### *Changes to configuration settings*

The configuration setting tables (both those which are the responsibility of the DCC and those which are the responsibility of the Energy Supplier(s)) may need to be updated in light of experience. Any changes would need to be made relatively quickly to minimise disruption to consumers and to DCC Users caused by unreliable communication. As it is proposed that the configuration setting tables will form part of the SEC they could be updated through the SEC modification process (Section D of the SEC). However, initial discussions with some stakeholders have suggested that

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<sup>4</sup> The configuration settings are values that can be set on a CH to allow management of the sub GHz bandwidth (further technical details can be found in GBCS V2.0)

the SEC modification process may not be suitable and an alternative mechanism to govern updates to the configuration setting tables should be considered.

The reasons suggested for considering an alternative approach have included: that only suppliers need to be involved as only they can access the functionality; changes cannot be progressed as quickly as required; there are no DCC systems changes and so DCC impact assessments are not required; and updates to the tables should not have wider impact (e.g. would not lead to renumbering of the SEC). A number of alternative approaches have been suggested, including:

- Making the changes to the tables subject to the normal SEC Modification process, but noting that a DCC Impact Assessment will not be required to change them;
- Permitting Energy Suppliers to modify them following consultation with Parties; and
- Permitting Energy Suppliers to modify them following consultation with Parties, but subject to the approval of the Panel.

Our initial view is that updates to the configuration setting tables should be made through the SEC Section D modification process. As stated previously, changes to DCC Systems are not needed to support such a modification (a change to configuration settings) and the updates should be capable of being progressed quickly, whilst maintaining appropriate scrutiny and oversight. This approach also avoids the need to create a bespoke process for different documents and the complications that may entail. However, noting the views already expressed, we are inviting views on: a) whether a new process is needed to cater for updates to the configuration setting tables; and b) if it is what that process should be.

The drafting introduces two additional SEC obligations. The intention of these obligations is to require DCC to ensure that all DBCHs delivered to Parties are configured in accordance with the requirements set out within the relevant configuration settings; and that the Energy Supplier(s) responsible for a DBCH, ensures that at all times the device is configured in a manner that is consistent with the requirements set out in the relevant annex of configuration settings.

The following changes to section F are proposed:

- That for each DBCH that the DCC delivers, the DCC shall ensure that the data items stored on the Communications Hub are (at the time of delivery) configured in accordance with the Configuration Table.
- That with respect to each Smart Metering System which includes a DBCH, the Lead Supplier will from time to time ensure that the data items stored on the Communications Hub are (at all times) configured in accordance with the Configuration Table.

<b>Consultation Questions</b>	
4	Do you agree with the proposal to introduce Dual Band Communications Hub Configuration Tables into the SEC and the introduction of obligations upon the DCC and Energy Supplier(s) to ensure that Dual Band Communications Hubs are from time to time appropriately configured?
5	Do you agree with the proposed legal drafting covering the inclusion of the configuration setting tables? (Annex B.1)
6	Do you agree that updates to the configuration setting tables should be progressed through the SEC Section D modification process? If not, please provide your reasons and outline the alternative governance approach you support and why it would more effectively and efficiently deliver the policy objective.

## ANNEX C: LIST OF CONSULTATION QUESTIONS

Consultation questions	
1	Do you agree with the proposal to amend the charging policy for Dual Band Communications Hubs? Where possible, please provide a rationale.
2	Do you agree with the proposed legal drafting changes covering incremental and development cost recovery? (Annex A.1)
3	Do you agree with the proposed legal drafting covering the provision of CHs in the Fylingdales area? (Annex A.1)
4	Do you agree with the proposal to introduce Dual Band Communications Hub Configuration Tables into the SEC and the introduction of obligations upon the DCC and Energy Supplier(s) to ensure that Dual Band Communications Hubs are from time to time appropriately configured?
5	Do you agree with the proposed legal drafting covering the inclusion of the configuration setting tables? (Annex B.1)
6	Do you agree that updates to the configuration setting tables should be progressed through the SEC Section D modification process? If not, please provide your reasons and outline the alternative governance approach you support and why it would more effectively and efficiently deliver the policy objective.