

October 8, 2012

Smart Metering Implementation Programme  
Department of Energy & Climate Change  
3 Whitehall Place  
London  
SW1A 2AW

## **Consultation on the second version of the Smart Metering Equipment Technical Specifications**

Dear Sir,

Please find First Utility's response to the above consultation below.

### **Chapter 4 – SMETS 2 Development**

*Question 1 - Do you have any comments on the criteria used in the evaluation of the application layer standards?*

In general we are concerned with the breadth of requirements being imposed on the solution and the technical complexity and risks that this introduces. This is evidenced by the need to adopt two different standards within a new "GB" profile. This directly challenges the goal of using mature, readily available technologies.

*Question 2 – Do you agree with the proposal to adopt ZigBee SEP / DLMS as the HAN application layer standards for GB?*

We understand how the proposal has been rationalised within the programme however please note our answer to Question 1 above.

*Question 3 - Do you agree that equipment should be required to comply with SMETS and a GB Companion specification for ZigBee SEP / DLMS?*

Please refer to our answer to Question 1 above.

*Question 4 – Do you agree with the overall approach proposed in relation to the HAN physical layer?*

Please refer to our answer to Question 1 above.

*Question 5 – Do you have any comments on the criteria used in the evaluation of the physical layer of the HAN?*

Our view is that the most appropriate option would be to mandate the use of dual band communications hubs once an 868MHz variant is available with a wired solution as a backup for sites where wireless communications would be difficult or impossible to use.

*Question 6 – What are your views on the compatibility of the reserved spectrum 870-876 MHz with 868 MHz with the value of considering the use of this band?*

We do not consider this to be a significant issue.

*Question 7 – Do you consider that additional measures should be taken to encourage the development of an 868 MHz solution?*

Yes, as it will benefit both the wider programme and the overall customer experience for more bandwidth to be available for smart meter communication, particularly once these are widespread following the completion of the national rollout. We would support steps taken by the Government to encourage development in this area.

*Question 8 – Do you agree with the approach to allow the market to determine the balance between 2.4 GHz and 868 MHz?*

This issue is potentially too significant to be left to the market to determine. 2.4 GHz is already available at a lesser cost than 868 MHz. Therefore, if left to its own devices, it is reasonable to assume that the market would gravitate towards this rather than the more reliable, although potentially more costly to develop, 868 MHz. We therefore suggest a more active stance on behalf of the programme to drive the development and adoption of an 868 MHz solution.

*Question 9 – What are your views on the costs and benefits of the three options identified for deploying wireless solutions (i.e. 2.4 GHz as the default; dual band communications hubs; or market led)?*

We believe that the additional upfront investment to develop and produce dual-band communications hubs will be more than offset through savings in inventory management and meter/HAN installation. Importantly improved reliability of the HAN will produce an improved consumer experience as it is more likely to achieve the desired programme benefits. A smart metering solution is only valuable if it reliably communicates via the HAN and WAN.

*Question 10 – Do you agree with the proposal for a “fit for purpose” installation obligation on suppliers?*

We feel that this would be impractical at present due to issues around technology maturity, interoperability and ownership of the HAN. However, this may be appropriate for consideration at some stage in the future once these issues have been resolved.

*Question 11 – Do you have any views on the proposed approach to developing a wired HAN solution?*

We would support the development of a wired HAN solution for properties where a wireless solution is impractical or not possible. Government funding should be provided for this as it will assist with consumer engagement and contribute to the overall success of the national rollout as, if a solution is not developed, some customers will be excluded from the benefits of smart metering.

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*Question 12 – Do you agree with the proposed scope of functional requirements for a communications hub? Are there any other functions that should be included and what would be your rationale for including those functions (including estimated costs and benefits)?*

We are concerned by the growing complexity of the proposed scope of functional requirements for a communications hub and feel that these could be stripped back. The ultimate aim must be simplicity with a focus around interoperability and avoiding over complicating technical specifications that could potentially cause issues around this.

*Question 13 – Do you have views on the specification for an “intimate” interface between electricity meters and communications hubs?*

We agree that this is an appropriate strategy in order to facilitate the installation and replacement of communications hubs. It is also our view that there is scope for independent third party testing in relation to this.

*Question 14 – Do you agree with the Government’s marginal preference for the CSP led model for communications hub responsibilities, or do you prefer the supplier led model?*

No, the supplier led model is likely to be more efficient as CSPs may elect for different communications hubs in different regions, which would unnecessarily add to both cost and complexity. Suppliers are more likely to favour a single communications hub design. In addition, a supplier led model will avoid issues around ownership which would result from a CSP led model and which could make third party funding for smaller suppliers difficult thus affecting competition.

*Question 15 – Do you agree with the proposal that a CHTS-compliant communications hub should not be mandated for opted out non domestic sites and that suppliers should be free to use whatever type of communications equipment best supports their processes and WAN service?*

Yes, this seems appropriate.

*Question 16 – Do you agree that the gaining supplier should bear the costs of installing an appropriate communications hub if they decide to switch between opted in and opted out?*

Yes, as this will be something that they have made a business decision to do.

*Question 17 – Do you agree that the design and implementation of outage reporting functionality should be assigned to CSPs, documented in the communications hub technical specification?*

We question the value that this functionality would add and feel that the likely cost of providing this would outweigh any attendant benefit.

*Question 18 – Do you agree that it would be inappropriate to require meters operated outside DCC to required to implement outage reporting?*

Yes.

*Question 19 – Do you agree that maximum demand registers should be included in SMETS?*

This will unnecessarily add to complexity and cost. We do not believe that there is any strong requirement for maximum demand to be measured at individual household level and are of the view that this is better dealt with at an aggregated level.

*Question 20 – Do you agree with the proposal not to include the capability to generate additional voltage alerts based on counter thresholds in SMETS? Do you have any evidence that could justify including this functionality in SMETS 2?*

Yes as we feel that the costs of providing this functionality would outweigh any attendant benefit.

*Question 21 – If DNOs were permitted to access remote disablement functions, should control logic be built into DCC systems or meters? If the logic should be built into meters, should the logic be specified in SMETS 2?*

We do not believe that DNOs should be permitted to access this function as allowing additional third party access to the meter creates an opportunity for security breaches. In addition, building control logic into DCC systems and meters will add further cost and complexity for little benefit to the customer.

*Question 22 – Do you agree that variant smart electricity meters should be specified in SMETS 2 and that the cost uplift for variant smart meters is similar to that for variant traditional meters?*

We do not believe that this is necessary as standard smart meters will be able to deal with the requirements of those customers with non-standard electricity metering arrangements.

*Question 23 – Do you agree that randomisation offset capability should be included for auxiliary load control switches and registers as described above? Do you have views on the proposed range of the randomisation offset (i.e. 0 – 1799 seconds)?*

No, as this is a further example of increased cost and complexity for little benefit.

*Question 24 – Do you support Option 1 or Option 2 for “pairing” a CAD to the HAN?*

If the Government wishes the HAN to be a useful instrument for consumers it is important that the technical framework allows certified devices to be added with no requirement for involving the Supplier or DCC. Therefore we do not support either option. We would suggest that a combination of a simple key or PIN and physical access to the hub to switch into “bind” mode would suffice as a security measure. We would point to the emergence of similar features in commonly available residential wireless routers.

*Question 25 – If Option 2 were adopted, do you agree that obligations should be placed on energy suppliers to support this process by submitting “pairing requests” to the DCC on request from their consumers?*

No, as this would be unnecessarily complex and cumbersome and would limit the value of the HAN in areas outside of the smart meter data collection.

*Question 26 – Do you consider that other CAD installation options should be pursued?*

Yes, please see our answer to Question 24 above.

*Question 27 – Do you agree with the proposal to include in SMETS 2 a specification for a PPMID, connected via the HAN, as described above?*

No, as this can be achieved in many more flexible means e.g. smart phone, supplier's online portal, etc. These alternative means are also likely to be more cost efficient than what is proposed.

*Question 28 – Would including the capability to enable gas and electricity supply through a PPMID connected via (a) a wireless HAN or (b) a wired HAN meet GB safety requirements? What impact would including this capability have on the cost of smart metering equipment?*

Please see our answer to Question 27 above.

*Question 29 – Do you agree with the proposal that the communications hub should be specified such that it can support multiple smart electricity meters? How many smart electricity meters should be supported by each communications hub?*

The standard should be one smart meter per communications hub. This will result in reduced complexity and lower cost.

*Question 30 – Do you agree that a specification for an HHT interface to the HAN should be defined? If yes, please identify the functions that this interface would need to support and the scenarios in which such functionality could be required.*

Yes, this should be defined as standardisation will result in reduced complexity and lower cost. However, standardisation may result in a possible security weakness and it may therefore be appropriate for a wired (optical) HHT interface to be developed in order to counteract this.

## **Chapter 5 – Governance and Assurance of Security and Interoperability**

*Question 31 – Do you agree with the proposed approach to the governance of security requirements?*

We agree that it is appropriate that this be dealt with through a subcommittee of the SEC Panel staffed by technical experts from across the industry. However, detailed consideration needs to be given to the balance between the running costs of this and the benefit that it is likely to provide.

*Question 32 – Do you agree with the proposal to establish independent assurance procedures for DCC and DCC users? Comments would also be welcome in relation to the impacts and benefits of the proposed approach with regard to small suppliers.*

Although this may be appropriate for DCC, we do not believe that it would be appropriate for DCC Users. This is likely to add cost and complexity which will disproportionately affect smaller suppliers. In addition, suppliers already operate their own assurance procedures which we believe are sufficient.

*Question 33 – Do you agree with the proposal that re-testing should occur at least at set intervals and more frequently when significant changes to systems or security requirements are introduced?*

Please see our answer to Question 32 above. We believe that existing supplier security assurance procedures should be sufficient.

*Question 34 – Do you agree with the proposal to establish an independent security certification scheme for smart metering equipment? Do you have any views on the proposed approach to establishing a certification scheme or evidence of the costs or timelines for setting up such a scheme or submitting products for certification?*

Yes. It would be difficult to form a view on the costs of such a scheme at this stage, but we believe that this is the most efficient way in which to approach the issue.

*Question 35 – Do you agree that sanctions for non compliance with security requirements should be included in the SEC? Do you have views on the nature of the sanctions that might be imposed?*

Sanctions should only be applied where there is proof of a breach. We would suggest that withdrawal of DCC services to a DCC User be a last resort following a number of warnings rather than automatic punishment for a first offence as withdrawal of services would make it impossible for a domestic supplier to interact with its smart meters through DCC.

*Question 36 – Do you agree with the proposal to, in effect, extend the arrangements already proposed for SMETS installations prior to DCC operation, to all installations being operated outside DCC? Please provide evidence of the costs that might be incurred and the impact of this approach on small suppliers.*

No as this would add little benefit, result in additional cost and complexity and slow the learning process.

*Question 37 – Do you agree that interoperability is central to the development of a successful smart metering solution and that activities related to the assurance of SMETS equipment should be governed by SEC?*

Yes as the ability of smart meters to exchange data is imperative for delivery of the full benefits of smart metering. We agree that it is appropriate that SMETS assurance related activities should be governed by the SEC. We would also like to emphasise that interoperability should be the most important component of the smart meter programme, even to the extent that it supersedes functionality, as otherwise consumers may experience barriers in exercising their right to switch.

*Question 38 – Do you agree with the creation of an “approved products” list and that the requirement on suppliers and CSPs to obtain, retain and provide evidence of appropriate certification should apply regardless of whether they intend to enrol the equipment in DCC?*

No, an industry wide interoperability standard should be created supported by independent third party certification testing.



*Question 39 – Do you agree that protocol certification (against a GB Companion Specification) should provide adequate assurance that a product will meet interoperability requirements?*

No, please see our answer to Question 38 above. Individual vendor conformance testing should be carried out prior to certification.

## **Chapter 6 – Operational Licence Conditions**

*Question 40 – Do you agree with the Government's proposals to require energy suppliers to operate specific aspects of smart metering equipment functionality for domestic consumers?*

Yes, provided that suppliers are not responsible for elements of the solution beyond their control such as the WAN.

*Question 41 – What are your views on the Government's proposals to require energy suppliers to operate specific aspects of smart meter equipment functionality for micro business, but not other non domestic, customers?*

Please see our answer to Question 40 above. The supplier does not have control over the WAN and therefore cannot be responsible for this.

*Question 42 – Do you agree that the licence conditions as drafted effectively underpin the Government's policy intentions for consumer operational requirements?*

Yes, although please see our answers to Questions 40 and 41 above.

*Question 43 – What are your views on the Government's proposals for obligations to be included in the SEC for information to be made available to Network Operators and ESCOs via the DCC?*

This seems appropriate in order to ensure smooth running of the overall system.

*Question 44 – Do you agree with the Government's proposals for the timing of the introduction of operation requirements?*

Due to the complexity of the proposed arrangements and the relative immaturity of the associated technologies, we feel that the proposals around timing may be optimistic.

## **Chapter 7 – Next Steps**

*Question 45 – Do you agree with the proposed changes to the smart metering regulatory framework to reflect the CSP led model for communications hub responsibilities? Are any other changes necessary?*

No, please see our answer to Question 14 above. We believe that a supplier led model would be more appropriate for the reasons discussed.

*Question 46 – Do you agree that the equipment development and availability timelines are realistic?*

No, please see our answer to Question 44 above.

*Question 47 – Do you agree that SMETS 2 should only be designated when the Government has confidence that equipment to satisfy the new requirements is available at scale? Should a further period of notice be applied to ensure suppliers can manage their transition from SMETS 1 to SMETS 2 meters?*

Yes, as any other approach would likely have unintended consequences. We agree it would also be useful for a notice period to apply in relation to the transition from SMETS 1 to SMETS 2 meters in order to ensure a smooth transition and minimum disruption to customers as well as to allow full testing of the SMETS 2 solution.

*Question 48 – What are your views on when responsibility for the SMETS modification process should transfer from the Government to the SEC?*

We believe that this transfer of responsibility should take place once SMETS 2 has been designated and the related metering equipment is widely available.

*Question 49 – Which of the options (standing sub-committee or non-standing sub-committee) would you prefer in relation to modifications to the SMETS?*

We believe that a non standing subcommittee would be more appropriate in terms of controlling additional costs in relation to the smart meter programme.

*Question 50 – Are there any particular areas of expertise that the sub-committee will need to fulfil its role, in terms of membership composition?*

We would suggest that members should have demonstrable relevant expertise. We would also suggest that ESCOs, suppliers and DNOs be represented.

Please do not hesitate to contact me should you have any questions or require any further information.

Yours sincerely,