



Smart Metering Implementation Programme - Regulation
Department of Energy & Climate Change
Orchard 3, Lower Ground Floor
1 Victoria Street
London
SW1H 0ET

Email to: smartmetering@decc.gsi.gov.uk

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Smart Metering Implementation Programme - Consultation on additional SEC content

EDF Energy is one of the UK's largest energy companies and is the largest producer of low-carbon electricity. A wholly-owned subsidiary of the EDF Group, one of Europe's largest energy groups, we generate around one fifth of the UK's electricity and employ around 15,000 people. We supply electricity and gas to around 5.8 million residential and business customer accounts, making us the biggest supplier of electricity by volume.

EDF Energy welcomes the opportunity to comment on the proposals and legal text contained within the consultation. The Smart Energy Code is developing into an essential regulatory document which provides a baseline of over 1,000 pages of obligations and protections to industry participants and consumers.

We are dependant on the timely completion of this baseline in order to design, build and integrate our systems to interface with the Data Communications Company (DCC). We are therefore concerned with the ongoing level of change. The consultation proposes extensive changes to Sections G and H of the code, and the obligations and processes related to Security and DCC Services. The current level of change is unsustainable and a firm design baseline must be reached as soon as possible. Without this there is a risk to the readiness of suppliers to commence Integration Testing and the 2020 installation target.

EDF Energy believes that robust security arrangements are fundamental to protecting both the smart metering equipment installed in customers' homes and the wider end to end smart metering architecture. However, it also needs to be ensured that the security arrangements are not over-engineered resulting in increased costs that are disproportionate to the risks being addressed.

We are also concerned that there is insufficient clarity regarding the purpose and role of the different types of Key Infrastructure that are detailed in the consultation. Specifically the roles of Infrastructure Key Infrastructure (IKI) and DCC Key Infrastructure (DCKI) have been introduced for the first time, and it is not possible what their purpose or role is. Without this it is not possible to support the proposed changes. We believe that further information needs to be made available to support SEC Parties in understanding and implementing these critical components of the security architecture.



The remainder of the changes proposed in the consultation represent an appropriate and pragmatic approach to security, and ensure that all parties that interface with the DCC systems are subject to the same level of security governance. They also ensure that devices are not replaced unnecessarily when post-commissioning activities can not be completed, but can be managed in a way that protects the end to end smart metering system.

Our detailed responses are set out in the attachment to this letter. Should you wish to discuss any of the issues raised in our response or have any queries, please

I confirm that this letter and its attachment may be published on DECC's website.

Yours sincerely,

Attachment

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EDF Energy's response to your questions

Additional Public Key Infrastructures and SMKI-related changes

Q1. Do you agree with the proposed approach and legal drafting in relation to Infrastructure Key Infrastructure?

EDF Energy does not agree with the legal drafting in relation to the IKI. The way the text is drafted causes confusion to the purpose and role of IKI and its relationship with both SMKI and DCCKI has not been made sufficiently clear, either in the consultation document or in the draft legal text. The draft legal text published does not refer to the term Infrastructure Key Infrastructure at all, and Section A does not have a definition of IKI although it is referred to multiple times. We believe a more explanative term should be used, such as hard token SMKI User Identification Key.

It has been difficult for us to understand the proposed approach based solely on the information included in the consultation. We have had to seek further information from the DCC in order to understand the technical and functional context for IKI; we believe that this information should have been provided as part of the consultation to enable a full understanding. We would welcome the publication of further technical and functional information regarding the wider Key Infrastructure to aid a common understanding of these proposals.

Q2. Do you agree with the proposed approach and legal drafting in relation to DCC Key Infrastructure?

EDF Energy agrees with the proposed approach to DCC Key Infrastructure. The approach that is being taken reflects the fact that DCCKI is a more limited security control, and the related obligations therefore do not need to be as onerous as for SMKI. This proposed approach should also enable the costs of delivering DCCKI governance and assurance to be minimised.

However, as per our response to question 1, we believe that it is difficult to properly assess these proposals fully without more information about the technical and functional context. Again, we would welcome the publication of further information regarding the wider Key Infrastructure to aid a common understanding of these proposals.

Q3. Do you agree with the proposed approach and legal drafting in relation to allowing RDPs to become Authorised Subscribers for Organisation Certificates?

EDF Energy agrees with the proposed approach to requiring RDPs to become Authorised Subscribers for Organisation Certificates. We believe that SMKI provides an appropriate level of security for critical data, and we are pleased to see that the security standards for the exchange of registrations between RDPs and the DCC have now been brought up to standard.

We have no comments on the proposed legal drafting.

Q4. Do you agree with the proposed approach and legal drafting in relation to the checks the DCC must apply when deciding if a Subscriber is an Eligible Subscriber?

EDF Energy agrees with the proposed approach to the checks that the DCC must apply when deciding if a Subscriber is an Eligible Subscriber. We believe that this provides the appropriate level of security and ensures that only appropriate parties can regenerate the private keys on devices.

We have no comments on the proposed legal drafting.

Q5. Do you agree with the proposed approach and legal drafting in relation to the size restrictions on a number of fields in Device and Organisation Certificates?

EDF Energy agrees with the proposed approach to size restrictions in Device and Organisation Certificates. We believe the restrictions that are proposed are appropriate and will not create unnecessary constraints on the creation of certificates.

We have no comments on the proposed legal drafting.

Q6. Do you agree with the proposed approach and legal drafting in relation to the clarified Independent SMKI Assurance Scheme?

EDF Energy agrees with the proposed approach in relation to the clarified Independent SMKI Assurance regime; however we do not believe that the draft legal text reflects that approach.

The legal text published on the DECC website (at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/380821/SE_C4A_transitional_arrangements_gov_conclusions_and_further_consultation_text_comments.pdf) that would give effect to the proposals in the consultation is detailed sections 2.3 and 2.4 of Appendix C. This is shown as deleted and therefore appears as text that is to

be removed rather than added. As drafted the proposed text would actually be the existing designated text, and so no change has been made.

On the assumption that the text marked as 'struck through' in the legal drafting of sections 2.3 and 2.4 of Appendix C is the new text, we have no comments on this text as it meets the policy intent.

Security-Related requirements & Post-Commissioning Obligations legal drafting

Q7. Do you agree that the proposed changes are necessary and proportionate to protect DCC Systems?

EDF Energy agrees that the proposed changes are necessary and proportionate to protect DCC systems. All Users and RDPs that connect to the DCC pose a risk to those systems irrespective of their role and so should be subject to a minimum set of security obligations that ensure the DCC remains protected and available to all Users.

We recognise the need to be able to suspend connections to the DCC systems in certain extreme circumstances, provided it is exercised as a last resort. Users should be given a reasonable chance to rectify any issue before this option is exercised due to the impact that this may have on their business activities. It also needs to be ensured that, where the Panel determine that such a suspension was not warranted, that there are clear obligations in place for re-establishing the User's connection to the DCC at the earliest possible opportunity and in any case within 24 hours of the Panel making their decision.

We note that the ability to suspend communication services as detailed in the legal text only applies where Users or RDPs pose a risk of compromise to the DCC systems. It should be considered whether obligations need to be in place where the DCC systems pose a risk of compromise to User or RDP systems and a suspension is required to protect those parties.

In regards to the legal text, we believe that further clarity could be provided. Both sections G1.7 and E2.14 require that some of the obligations set out in section G5.18(b) need to be read differently where they apply to Export Suppliers, Registered Supplier Agents and RDPs. We believe that it would assist the clarity of these obligations if section G5.18(b) also referenced this requirement.

Q8. Do you agree with the proposed changes to the post commissioning obligations and associated limitation of liabilities?

EDF Energy agrees with the proposed changes to the post-commissioning obligations. As detailed in our response to the SEC 4 consultation, the proposed obligation to replace devices immediately where the obligations could not be met was disproportionate to the risk associated with such a failure. Suspension of a device is a much more appropriate solution which will secure the end to end smart metering system while minimising unnecessary replacement of devices.

Where the device that is suspended is the Communications Hub Function, this will have a direct impact on the relevant Supplier(s) and other Users who are reliant on the DCC's communication services. This will also have an impact on customers who expect to receive services enabled by the DCC. We note that the legal drafting requires the DCC to communicate changes in the SMI Status to and from the 'suspended' status to the Responsible Supplier. A robust and timely mechanism for such communication will be required. We also believe that other Users that are affected by the change in SMI Status should be notified by the DCC; such Users should be identified as Interested Parties in line with the DCC's Incident Management Policy.

We note that section H5.36 states that a Responsible Supplier 'may replace the associated Communications Hub' and return it as a defective comms hub. We do not believe that this legal text is sufficiently clear on the process by which Communications Hubs may be exchanged. As written it implies that any Responsible Supplier may choose to replace the Communications Hub where it has been suspended, which does not seem appropriate. This may lead to Communications Hubs being removed and marked as defective unnecessarily, increasing the DCC's costs. We believe that there should be clearly defined timescales within which the DCC should endeavour to resolve the issue before they notify the Lead Supplier that the Communications Hub needs to be replaced.

We further note that part (a) of section H5.38 (a) of the proposed legal drafting requires the Supplier to ensure that the SMI Status of the Device is set to 'suspended'; however, the 'Update Inventory' Service Request does not currently support communication of this status. A change will be required to the DCC User Gateway Interface Specification to support this obligation. Changes may also be required to the Inventory, Enrolment and Withdrawal Procedures document which is proposed in relation to question 10 of this consultation, and which includes obligations related to 'suspended' devices, as a result of these proposals.

Consideration will need to be given to how these obligations might transfer between parties on a Change of Supplier event. It is possible that a Change of Supplier might take place soon after a meter is commissioned, and before a Supplier can complete the post-commissioning obligations. Where a meter has a status of 'suspended' and is subject to a Change of Supplier event, it is assumed that the obligations to complete the post-commissioning activities will transfer to the new Supplier or they will need to replace the device. It is not clear how they will know why the device has been suspended and what actions they need to take. We believe that the wider impact of device suspension on the Change of Supplier process requires further consideration.

In regards to the associated limitation of liabilities we broadly agree with the proposed changes; however, it needs to be recognised that a Supplier Party may not be able to complete their post-commissioning obligations, specifically where a Change of Supplier event occurs before they are able to do so. It needs to be recognised that Suppliers can not be liable for losses where they have been prevented from meeting their obligations by such an event.

Q9. At what point should the Recovery Key on a meter be validated?

EDF Energy does not believe that Suppliers should be solely responsible for validation of the Recovery Key on a meter, as is proposed in the consultation. When carrying out such a validation it is likely that Suppliers will reference the information they hold about the Recovery Key that was originally used to provide the Recovery Key to the meter manufacturer. If this is the case, it may mean that the Recovery Key may be validated against the incorrect Recovery Key.

We believe that it is appropriate for Suppliers to validate the Recovery Key as part of their post-commissioning obligations. We also believe that the DCC should provide some oversight to provide additional independent assurance that the Recovery Keys are valid. This is required due to the critical nature of the Recovery Key.

EDF Energy believes that the timescales for validation of the Recovery Key on a meter should be aligned with the timescales for other post-commissioning obligations, and should be complete as soon as possible and within seven days of commissioning. It is necessary to identify any issues with the Recovery Key as soon as possible after commissioning as these are likely to affect batches of meters. Early identification may prevent meters from being installed that subsequently need to be exchanged.

Movement of some Technical Arrangements into Subsidiary Documents and Providing for Some SEC Milestones to be Turned into Dates

Q10. Do you agree with the proposal to move four sections of the SEC (H4, H5, H6 and O3) from the SEC into SEC subsidiary documents, and the proposed changes to the legal drafting accommodate this?

EDF Energy agrees with the proposal to move technical content into SEC subsidiary documents. Such documents are a more logical place to define the detailed technical arrangements that underpin the core SEC obligations within the main body of the code. Also, as noted, this will provide flexibility in regards to the designation of the subsidiary documents which is likely to be required in the early stages of DCC operation.

We are concerned about the amount of change that these sections of the SEC continue to be subject to. This is creating a delay in getting to a clear baseline that can be used by Users as the basis of a robust design. The processes detailed in Section H of the SEC are core to the operation of DCC and User systems design, build and testing.

Ongoing change to these obligations is making it very difficult for Users to get clarity on what they need to design to, which then increases the risk that they may not be able to be ready on time. Alternatively, Users can design at risk, and then incur costs as a result of having to re-work their design to meet their revised SEC obligations.

EDF Energy understands that there is an evolving understanding of the technical issues and changes are made as a result of ongoing consultations. However, we believe that the

current level of change is unsustainable and a firm design baseline must be reached and frozen as soon as possible.

In regards to the legal drafting, we have found it difficult to review the relevant sections as the formatting of the amended text and the amount of text that has been removed makes it difficult to clearly identify the proposed content for the SEC. A 'clean' version of the relevant sections would have made this review a much simpler process. It will also be necessary to ensure that nothing has accidentally been changed in the transfer of content to the subsidiary documents when the contract is published.

We have no comments on the legal drafting based on our understanding of the current proposed legal text, but we welcome the opportunity to review the proposed SEC subsidiary documents at the earliest possible opportunity.

Q11. Do you agree with the proposed approach to amending the legal drafting to provide for the Secretary of State to direct that an activity is required to be carried out in advance of a specified date instead of a milestone?

We do not agree with the proposed approach at this stage. It is not easily determined within the SEC which activities are associated with milestones and would be affected by the proposed changes. As such, we would welcome the opportunity to review the changes to the legal text that would result from these proposals as it is only at this point that we will be able to determine the true impact.

EDF Energy agrees in principle with the proposal for the Secretary of State to direct that an activity be completed by a specific date rather than in relation to milestone. Delay to a milestone does not necessarily mean that a preceding activity should also be delayed. However, while we agree with the general approach, we would also note that some activities should remain linked to a milestone due to their dependencies.

We therefore believe that any proposal to complete an activity by a specific date should be subject to consultation as there cannot be a 'one size fits all' approach. This is especially the case for those milestones and associated activities that are on the critical path for ILO, we do not believe that such a critical path has been clearly identified and so the impacts of changing the dates for specific activities on that critical path is unknown.

Test Services to Support System Providers and Shared Systems, and Possible DCC Gateway Connection Requirements for Remote Testing

Q12. Do you agree with the approach and proposed legal drafting supporting Parties undertaking tests equivalent to UEPT and SREPT on their own account?

EDF Energy agrees with the proposed approach, we can see the benefit of allowing any Party to undertake testing on their own account; as noted in the consultation document this should increase competition and ultimately lower costs.

However, we believe that the SEC must ensure that SEC Parties who are conducting actual entry process testing activity, and specifically Energy Suppliers, must take priority over Parties undertaking this form of testing. This specifically applies to scheduling of testing activity and support of test environments and services provided by the DCC.

We are also concerned with the approach to cost recovery noted in the consultation whereby the costs of User System tests are recovered via the DCC's fixed per meter charges. The DCC must ensure all costs relating to third party agents who carry out testing are responsible for their proportion of testing charges. These should not form part of the fixed charges Suppliers are expected to pay, and there must be no cross subsidisation.

Q13. Based on our understanding of the DCC's remote testing offering, it may be that a DCC Gateway Connection is required, which would mean that remote testing would only be available to SEC Parties. We welcome views from prospective testing participants on the impact this may have on their plans.

EDF Energy is a SEC Party and will require a DCC Gateway Connection so we will not be affected by this requirement. We can also see that there is likely to be a benefit in terms of cost management if the DCC is only required to support one type of interface for remote testing.

However, it will need to be determined whether this requirement is likely to either increase costs for other participants or dissuade parties from conducting such testing. If so, this could act as a barrier to competition in testing services which will ultimately serve to increase the costs that are borne by customers.

**EDF Energy
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