



Department for
Business, Energy
& Industrial Strategy

Department for Business, Energy &
Industrial Strategy

1 Victoria Street
London SW1H 0ET
www.gov.uk/beis

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

14 January 2020

Dear Colleague,

**CONSULTATION ON CHANGES TO STANDARD CONDITIONS OF GAS AND
ELECTRICITY SUPPLY LICENCES, CONDITIONS OF THE DCC LICENCE, THE
SMART ENERGY CODE, THE UNIFORM NETWORK CODE AND THE MASTER
REGISTRATION AGREEMENT.**

This consultation seeks stakeholders' views on a number of matters that require
amendments to standard conditions of gas and electricity supply licences, the DCC licence
and the Smart Energy Code (SEC), the Uniform Network Code (UNC) and the Master
Registration Agreement (MRA).

More specifically, the changes proposed by this consultation are:

- changes to the SMETS1 enrolment obligations in energy suppliers' licence
conditions;
- changes to split the Smart Metering Equipment Technical Specification (SMETS) into
individual device specifications so that version numbering and validity dates can be
applied to each Device type;
- associated changes to provide for an "incompatibility matrix" rather than the existing
"compatibility matrix";
- changes to the definition of Completion of Implementation in the DCC licence to align
with proposed changes to the SEC;
- changes to Section G of the SEC (Security) to clarify the circumstances in which
DCC must use Cryptographic Modules and when it must set Anomaly Detection
Thresholds;
- changes to the UNC and MRA to provide for DCC to receive additional information
on the number of Advanced Meters each supplier has installed in support of
proposed changes to the DCC charging methodology;
- changes to introduce a new type of SMKI Organisation Certificate, that of "XML
signing";

- changes to ensure that the submission of an Exempt Premises List for Alt HAN is optional for energy suppliers and that the provision of Alt HAN Services can commence prior to one being in place;
- changes to introduce a temporary period of time during which the DCC may be required to submit a business case to the Secretary of State for approval prior to procuring any new or amended Relevant Service Capability, and to clarify that spare Relevant Service Capability should not be procured for the purposes of the Permitted Business; and
- a number of minor corrections to the SEC.

I welcome views on the proposals, and I look forward to your response to this consultation which closes at **10am on 18 February 2020**. The details of the proposals, and how to respond, are in **Annex A**.

Subject to consideration of consultation responses, the changes to licence and code provisions will be introduced using the Secretary of State's Section 88 Energy Act 2008 powers, subject to completion of the necessary Parliamentary processes.

Yours faithfully,



Duncan Stone

Deputy Director & Head of Delivery

Smart Metering Implementation Programme

List of Annexes and Attachments to this letter

Annex A Consultation document

Annex B Proposed legal drafting [drafting attached separately]

Annex A: Consultation document

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General Information

Why we are consulting

This consultation seeks stakeholders' views on changes to standard conditions of gas and electricity supply licences, conditions of the DCC licence, the Smart Energy Code (SEC), Uniform Network Code (UNC) and the Master Registration Agreement (MRA). Subject to consideration of consultation responses, the changes will be introduced using the Secretary of State's Section 88 Energy Act 2008 powers, subject to completion of the necessary Parliamentary process.

Timing

Responses to this consultation should be submitted **10am on 18 February 2020**.

Responding to the consultation

Your response will be most useful if it is framed in direct response to the questions posed, by reference to our numbering, though further comments and evidence are also welcome.

Responses should be submitted to smartmetering@beis.gov.uk

or addressed to:

Smart Metering Implementation Programme – Regulation,
Department for Business, Energy & Industrial Strategy,
2nd Floor, Spur1,
1 Victoria Street,
London SW1H 0ET

When responding, please state whether you are responding as an individual or representing the views of an organisation. If you have any complaints about the way this consultation has been conducted, please email: beis.bru@beis.gov.uk.

Confidentiality and data protection

Information you provide in response to this consultation, including personal information, may be disclosed in accordance with UK legislation (the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004).

If you want the information that you provide to be treated as confidential please tell us but be aware that we cannot guarantee confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not be regarded by us as a confidentiality request.

We will process your personal data in accordance with all applicable UK and EU data protection laws. See our [privacy policy](#).

We will summarise all responses and publish this summary on the SECAS website. The summary will include a list of names or organisations that responded, but not people's personal names, addresses or other contact details.

Territorial extent

This consultation applies to the gas and electricity markets in Great Britain. Responsibility for energy markets in Northern Ireland lies with the Northern Ireland Executive's Department for the Economy.

Quality assurance

This consultation has been carried out in accordance with the government's [consultation principles](#).

If you have any complaints about the way this consultation has been conducted, please email: beis.bru@beis.gov.uk.

1. SMETS1 enrolment obligations

Background

1. A number of energy suppliers have been installing first-generation (SMETS1) smart meters for their customers. Like second-generation (SMETS2) smart meters, SMETS1 meters provide consumers with the benefits of accurate bills and near real-time energy consumption information. However, SMETS1 meters currently operate via data and communications systems put in place by individual energy suppliers, as opposed to a single data and communications infrastructure which is accessible to all energy suppliers. As such, SMETS1 meters installed by one energy supplier are not always compatible with another energy supplier's systems and consumers may lose smart functionality when they switch energy supplier.
2. Enrolment of SMETS1 meters on the single data and communications infrastructure of the Data Communications Company (DCC) will rectify this and will provide a number of benefits to consumers and the energy market, in particular:
 - Retention of smart services for consumers when they switch energy supplier.
 - Reduction of stranding risk for existing SMETS1 assets.
 - The application of a number of additional security controls core to the national data and communications service, such as threshold anomaly detection, would be extended to these meters.
 - Efficiency gains from rationalisation of smart metering interfaces, and processes within energy supplier businesses.
3. The Government has previously confirmed that the DCC should provide a SMETS1 service for the Aclara, Honeywell Elster, Landis+Gyr, Itron¹ and Secure SMETS1 meter sets.² Together these meter sets comprise over 99% of the SMETS1 population. DCC is in discussion with the installing energy supplier, the manufacturer and the relevant Meter Asset Providers to develop a way forward for the remaining and smallest meter set, EDM1. Once sufficient cost, technical and security information is received from DCC we intend to consult on whether the DCC should provide a SMETS1 service for the EDM1 meter set.
4. In October 2018 the Government confirmed the following obligations would be introduced in energy suppliers' licence conditions,³ with a view to ensuring that consumers with SMETS1 meters can retain smart services whenever they switch energy supplier:

See: <https://www.gov.uk/government/consultations/enrolment-of-smets1-meter-cohorts-with-the-data-communications-company>

See: <https://www.gov.uk/government/consultations/enrolment-of-secure-smets1-meters-in-the-data-communications-company-dcc>

See: <https://www.gov.uk/government/consultations/maximising-interopability-for-first-generation-smets1-smart-meters>. These obligations are included in conditions 48 and 54 of the gas and electricity supply standard licence conditions, respectively, and took effect in January 2019.

- Energy suppliers would be required to take all reasonable steps to enrol their 'eligible SMETS1 meters' in the DCC, within 12 months of the point at which they can be enrolled.⁴
 - Where an energy supplier acquires an eligible SMETS1 meter following change of energy supplier and the meter is not enrolled, the new energy supplier would be required to take all reasonable steps to enrol the meter within 12 months of acquiring the meter.
 - Energy suppliers would be required to take all reasonable steps to replace any SMETS1 meter which is not enrolled in the DCC with a SMETS2 meter by the end of 2020 ('the replacement duty').⁵
 - Once a SMETS1 meter has been enrolled in the DCC it may not be withdrawn and operated outside the DCC.
5. Alongside these obligations in energy suppliers' licence conditions, the SMETS1 Transition and Migration Approach Document (TMAD)⁶ introduced several obligations regarding the enrolment of 'dormant' SMETS1 meters.⁷ This included requiring the DCC to take all reasonable steps to migrate dormant SMETS1 meters as soon as reasonably practicable. TMAD also obliges energy suppliers (in particular the installing supplier) to support DCC in enrolling dormant SMETS1 meters.
6. Our policy intent is for all dormant SMETS1 meters to be enrolled in the DCC by end-2020 so as to support a fully interoperable smart meter market from this point. This is consistent with existing obligations in the Operational Licence Condition⁸ which require energy suppliers to take all reasonable steps to operate SMETS1 meters in domestic premises in 'smart mode' from the earlier of the point they are enrolled in the DCC or end-2020.⁹

Rationale

7. The replacement duty was introduced to ensure that an interoperable service is available for all consumers with smart meters by a specified point, and that the consumer and industry benefits of operating meters via the DCC are delivered in a timely manner. We consider this objective remains appropriate.
8. However, the current end-2020 replacement duty was introduced on the basis that all SMETS1 cohorts eligible for enrolment would have a 12-month enrolment window that ended before the deadline set by the replacement duty.

⁴ 'Eligible for enrolment' is determined with reference to the point in time at which device models are added to the Eligible Product Combination List (EPCL) (or are capable of being added but for the application of an existing firmware upgrade(s)). The EPCL of device model combinations in relation to which DCC has proven through testing its ability to process service requests. A SMETS1 device model combination is typically an electricity meter, gas meter, communications hub and in-home display.

⁵ The 2020 deadline would apply even if the obligations described in the first two bullets appeared to allow a longer period for enrolment of the meter to take place.

⁶ SEC appendix AL: <https://smartenergycodecompany.co.uk/document-download-centre/download-info/sec-appendix-al-smets1-transition-migration-approach-document/>

⁷ These SMETS1 meters are currently not operating in 'smart mode' as the consumer has switched energy supplier since the meter was installed.

⁸ Part A of electricity supply standard licence condition 49; Part A of gas supply standard licence condition 43.

⁹ For consumers in microbusiness premises energy suppliers do not have to operate meters in smart mode until they are enrolled in the DCC.

Proposed amendments

9. To reflect the revised enrolment timetable,¹⁰ we propose amending the replacement duty such that energy suppliers would be required to take all reasonable steps to replace any unenrolled SMETS1 meter with a SMETS2 meter by the end of 2021, rather than the end of 2020. Based on the DCC's current plans, this would mean all SMETS1 meter sets planned for enrolment have at least 12 months from the point they are added to the EPCL before the replacement duty deadline applies. It would therefore deliver our objective for all consumers with smart meters to benefit from an interoperable service in a timely manner. Further, this approach is consistent with the existing rationale for the replacement duty which, as noted above, was introduced on the basis that all SMETS1 cohorts eligible for enrolment would have a 12-month enrolment window that ended before the deadline set by the replacement duty. We propose this amendment to the replacement duty would apply for all SMETS1 meter sets, including for any SMETS1 meters that are not eligible for enrolment.
10. We have considered an alternative approach whereby the replacement duty would apply (subject to 'all reasonable steps') 12 months after the meter was entered on the EPCL, or 12 months from the point an energy supplier gains on change of supplier an unenrolled SMETS1 meter which is eligible for enrolment. This would mean an earlier replacement duty applying for some meter sets (i.e. those which enter the EPCL before end-2020 and are not subject to change of supplier). However, for other meters, i.e. those which are not entered on the EPCL until later and/or are subject to a change of supplier before they are enrolled, the point at which the replacement duty applies would be delayed until potentially after 2021. This approach would not deliver the consumer and industry benefits of timely enrolment in the DCC in all cases (subject to 'all reasonable steps'). In addition, this approach could remove incentives on market participants to take the necessary steps for getting SMETS1 meter sets onto the EPCL as soon as practicable. This approach would also require a different deadline to be set for any meters that are not eligible for enrolment. For these reasons this option has therefore been discounted.
11. We do not propose amending the obligation on suppliers to take all reasonable steps to enrol SMETS1 meters within 12 months of entry on the EPCL, or within 12 months of the point an unenrolled SMETS1 meter is gained on churn. We consider this obligation remains justifiable, necessary and appropriate to ensure that the consumer and industry benefits of enrolment in DCC are realised in a timely fashion.
12. More broadly, BEIS continue to reflect on whether there are the right balance of incentives and obligations on parties in relation to our policy intent of all dormant SMETS1 meters being enrolled in the DCC by end-2020. We are reflecting on the requirements set out in TMAD and elsewhere and may in due course bring forward proposals for consultation.

¹⁰ Revised enrolment milestones are included the Joint Industry Plan v7.0.

SMETS1 enrolment obligations – Consultation Questions

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| 1. | Do you agree with the proposal to amend the existing replacement duty, whereby energy suppliers would be required to take all reasonable steps to replace any unenrolled SMETS1 meters with SMETS2 meters by the end of 2021? |
| 2. | Do you agree that the proposed legal drafting delivers the policy intent? |

2. Device Level Technical Specification Versioning

Background

13. The SEC currently contains a number of “versions” of the Smart Metering Equipment Technical Specifications (SMETS). Each version of the SMETS sets out the technical specification for a number of different Devices (e.g. ESME, GSME, HCALCS, PPMID and IHD¹¹).
14. Different versions of SMETS have different Installation Validity Periods (IVPs) and Maintenance Validity Periods (MVPs) and different associated Applicability Periods for versions of the GB Companion Specification (GBCS). These periods are used to determine which versions of SMETS (and GBCS) smart metering devices must comply with on installation to count towards suppliers’ smart metering rollout licence obligations and subsequently when being maintained in accordance with suppliers’ licence obligations relating to maintenance.
15. In particular, for example, the MVP of a version of SMETS might be terminated if there is, say, a material security issue found in the specifications for one of the devices specified in it. The consequences of termination of the MVP would be that energy suppliers would be required to take steps so that all devices operate in compliance with another version of SMETS that has a valid MVP and which does not have the associated security issue.
16. In order to avoid the need for this, we are proposing to make changes to introduce the concept of individual device specific technical specifications so that the IVP or MVP or GBCS Applicability Period can be set independently for specific device types. Subject to consultation responses, when the relevant changes are made, we would re-designate all¹² of the existing versions of SMETS so that each comprises a number of individually versioned device specifications. In doing this we would apply the current SMETS version number to each of the individual specifications. An example of what the Technical Specification Applicability Tables would look like following the re-designation is included in Annex 1 to this Appendix A¹³.

¹¹ These acronyms mean: Electricity Smart Metering Equipment, Gas Smart Metering Equipment, HAN Connected Auxiliary Load Control Switch, Pre-Payment Interface Device and In-Home Display respectively.

¹² We do not propose to re-designate versions that have a terminated IVP or in relation to which all GBCS Applicability Periods have been terminated.

¹³ We propose to consult shortly on changes to the Technical Specification Applicability Tables (TSAT) as well as on the proposed individual specifications and on a number of other SEC subsidiary documents that

17. As part of the changes, we are proposing to keep the concept of a “SMETS document”, i.e. a document that includes the specification for a number of different devices. Under the revised arrangements, such a SMETS document would continue to contain the device technical specifications (and would be capable of being identified by the date upon which it was designated) however each device would have its own version number within the document¹⁴. The reason for doing this is so that, for example, the specification of GSMEs is always in Section 4 of the SMETS and ESMEs always appear in Section 5, etc. Maintaining the SMETS documents combining all device specifications obviates the need to undertake an extensive set of changes to the Mapping Table (table 20) in GBCS. If we did not do this, it would require all cross references in GBCS be changed to refer to the relevant sections of the new documents. Such an exercise would be very time consuming and would carry a significant risk of introducing errors which in turn could have real-world consequences for the specification of devices and for manufacturers and suppliers and we are therefore seeking to avoid doing this.
18. We have discussed these proposals with the Technical and Business Design Group (TBDG) – a transitional industry forum that provides, amongst other things, technical advice as part of the Smart Metering Implementation Programme. TBDG was broadly supportive of making the changes described in this section, although questions were raised over whether these changes would lead to a need for additional testing. The changes proposed will reduce the number of versions of devices where no technical change is made, and as such testing scope should be reduced.
19. As part of these changes we are also proposing to clarify that (as is the case with SMETS) where terms are defined in GBCS as well as in Section A of the SEC, the GBCS definition is used for the purposes of the GBCS whereas the definition in Section A is used for other purposes. We are also proposing to extend clarification of the legal interpretation of embedded documents set out in SEC Section A2.12 also to apply to GBCS. In addition, we have proposed a further interpretation clause in SEC Section A2.14, which, we believe, means that no changes to any version of GBCS will be needed as a consequence of these changes.

Rationale

20. The introduction of device specific technical specifications allows IVPs, MVPs and GBCS Applicability Periods to be set per device and, in particular, allows these periods to be end dated if necessary for one device specification without affecting other specifications (and hence other devices) within the same SMETS document. The retention of the concept of a “SMETS document” as part of these changes obviates the need to carry out extensive changes to the cross references in the GBCS and hence avoids the potential for the introduction of errors and the likely inconvenience such a renumbering would impose on manufacturers and suppliers.

The proposed amendments

21. Changes are proposed to the relevant definitions in gas and electricity supply licence conditions and in the SEC and the consequential use of those definitions in other licence

are consequentially affected by the changes we are proposing, although we would be happy to receive any comments on the proposed structure of the new TSAT in response to this consultation.

¹⁴ The proposed version numbering for the individual device specifications is shown in Annex 1.

conditions and in the wider SEC. It is recognised that there is a need to update references to the relevant specifications in SEC subsidiary documents and we will consult on these changes as part of the consultation on the changes to the specifications themselves.

Consultation Questions

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| 3. | Do you agree with the proposal to make changes to introduce device specific technical specifications with their own version numbers? |
| 4. | Do you agree that the proposed legal drafting delivers the policy intent? |

3. Incompatibility Matrix

Background

22. Section F2.11 of the SEC requires the SEC Panel to create, keep up-to-date and publish on the SEC website a matrix setting out which versions of the technical specifications have been designed to be compatible with which other versions.
23. In light of the proposals described in the section above to move to device-specific versioning for SMETS, we think this matrix will become relatively large and complex. Furthermore, we think there would be a benefit in the Panel providing a brief explanation of the nature of any design constraints on the interoperability between versions of technical specifications.
24. In light of this, we are proposing to change the SEC to require the SEC Panel to produce an **in**compatibility matrix instead of the current compatibility matrix. Where minor operational constraints exist between two Technical Specifications that do not affect the fundamental behaviour of the relevant devices, then these specifications would be considered to be “compatible”, but the matrix would set out the general nature of the constraints.
25. Again, BEIS has discussed this proposed change with the TBDG and they were again broadly supportive of making it.

The proposed amendments

26. We are proposing to replace the existing drafting in Section F2.11 of the SEC to refer to the production of an Incompatibility Matrix rather than the current Compatibility Matrix. In addition, we are proposing to require that the matrix includes a general description of the nature of any operational constraints arising as a consequence of the design of Technical Specifications that are otherwise essentially compatible. We are also proposing to make consequential changes to the definition of “Compatible” in conditions of gas and electricity supply licences.

Consultation Questions

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| 5. | Do you agree with the proposal to have an incompatibility matrix, rather than a compatibility matrix? |
| 6. | Do you agree that the proposed legal drafting delivers the policy intent? |

4. Completion of Implementation in the DCC licence

Background

27. In September 2019, we consulted on proposals to modify the SEC to allow the remaining provisions of Section X¹⁵ to continue to prevail until Completion of Implementation¹⁶, rather than the earlier of 31 December 2020 and Completion of Implementation. We are planning to conclude upon that consultation in January 2020. The DCC licence also contains a number of references to 31 December 2020 in the context of the licence definition of Completion of Implementation. If the changes are made to the SEC as proposed in the September 2019 consultation, we propose to align the DCC licence with the SEC change.
28. The consequences of doing this are that a number of provisions in the DCC licence that currently terminate on the earlier of: (i) 31 December 2020; and (ii) Completion of Implementation (as defined in the SEC), would terminate only on Completion of Implementation (as defined in the SEC).
29. The relevant provisions deal with the following matters¹⁷:
- the period over which the transitional licence objective continues to apply;
 - the SofS's powers to suspend the Interim Objective in condition 5;
 - the SofS's powers to require an LC13 plan (and updates to this);
 - the SofS's power to designate new SEC subsidiary documents under condition 22.

¹⁵ The section X provisions that continue to prevail provide, for example, for powers to re-designate subsidiary documents, powers to require SEC Variation Testing Approach Documents and obligations on DCC to provide GFI testing services. The consultation can be found here: <https://smartenergycodecompany.co.uk/latest-news/consultation-on-changes-to-the-smart-energy-code-and-dcc-licence-conditions/>.

¹⁶ If the changes proposed in September are made, the SEC definition of "Completion of Implementation" would be essentially the date designated by the Secretary of State when they consider that (i) the documents material for the implementation of the SEC have been incorporated into it; (ii) that there are no longer any SEC variations made by Section X; and (iii) that licensees who are SEC Parties can materially comply with their obligations under the SEC.

¹⁷ We note that condition 36.13 of the DCC licence also makes reference to Completion of Implementation, but the BMIPA_t term in the DCC licence only has a non-zero value if it is otherwise determined in accordance with Schedule 3 of the licence. Schedule 3 only deals with Regulatory Years up to 2016/2017 and consequently there is no impact of the change in the definition of Completion of Implementation on this condition.

Rationale

30. We propose to make changes to align the definition of Completion of Implementation in the DCC licence with the proposed changes to the definition of the same term in the Smart Energy Code. As we have not yet concluded upon the changes to the SEC, our proposal to make these licence changes is contingent upon the results of that conclusion which we are planning to publish in January 2020.

The proposed amendments

31. We are proposing to delete condition 5.7 of the DCC licence which we no longer think is relevant based on the proposed changes. We are also proposing to change the definition of Completion of Implementation in Condition 5 to say that it takes the same meaning as set out in the SEC. In condition 22.29(a), we are proposing to replace the date of 31 December 2020 with "Completion of Implementation".

Consultation Questions

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| 7. | Do you agree with the proposed changes to the definition of COI in the DCC licence (and the replacement of the date in condition 22.29(a) with COI)? |
| 8. | Do you agree that the proposed legal drafting delivers the policy intent? |

5. Proposed Changes to Section G (Security)

Background

32. In May 2019, BEIS consulted on proposed changes to the SEC to deal with cryptographic processing of messages relating to SMETS1 Devices¹⁸. This included the specification of circumstances in which the DCC was (and was not) required to undertake cryptographic processing in Cryptographic Modules that are compliant with the requirements of FIPS 140-2 level 3 (or equivalent replacement).
33. As a follow-up to those changes a review of the circumstances in which the SEC requires DCC to use such Cryptographic Modules when processing messages to SMETS2+ Devices was undertaken in conjunction with the National Cyber Security Centre (NCSC). In light of that review, we believe that some changes are required to Section G. Our proposal is to clarify that DCC must use such Cryptographic Modules whenever the processing involves the "use" of a Private Key that creates a Digital Signature that is intended to be part of a Command that could be processed by a SMETS2+ Device¹⁹. This would include, for example use of the Recovery Key, WAN Provider and the Access Control Broker Digital Signing Keys to Digitally Sign Commands.

¹⁸ <https://smartenergycodecompany.co.uk/download/13710/>

¹⁹ The Recovery and Contingency Private Keys are split into several parts and held off-line, with each part being under the control of a Key Custodian. As "use" in this context includes storage, we have clarified that the Contingency and Recovery Private Keys do not need to be stored in such modules when they are in their split state.

34. We would also propose a further change to Section G to clarify the circumstances in which the DCC must set Anomaly Detection Thresholds (ADT). Currently DCC is required to set an ADT in respect of any Critical Command that results from a Service Request. There are, however, circumstances in which a Critical Command can be generated when there is no corresponding Service Request. Examples include when DCC is using the Recovery Key or the Contingency key, or when WAN Providers Digitally Sign Commands to upgrade the firmware on Communications Hubs. We are proposing a change to Section G to clarify that DCC must set ADTs for such Commands.

Rationale

35. Whilst these changes are largely technical in nature, they do deal with important security processes and we believe that it is important therefore that the requirements are clear and fully specified. In practice, we do not think these changes will require any DCC system changes since we believe that they are already following this approach. The change is therefore to provide clarity. Without the change it would, in principle, be possible for DCC not to apply anomaly detection to all Critical Commands which would be inappropriate from a security controls perspective.

The proposed amendments

36. We are proposing changes to Sections G2.44 and G6.6 of the SEC to add in these two new clarificatory requirements.

Consultation Questions

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| 9. | Do you agree with proposal to clarify the circumstances in which DCC must set an Anomaly Detection Threshold and which Private Keys must be stored in a Cryptographic Module? |
| 10. | Do you agree that the proposed legal drafting delivers the policy intent? |

6. Data for DCC Charging

Background

37. As part of the September 2019 consultation on the Smart Meter policy framework post 2020²⁰ we consulted on making changes in Section K of the SEC to the way in which DCC would charge for its services from 1 April 2021²¹. The essence of these changes

²⁰ <https://www.gov.uk/government/consultations/smart-meter-policy-framework-post-2020>, paragraphs 68 to 84.

²¹ In a separate consultation, also published in September 2019, (<https://smartenergycodecompany.co.uk/latest-news/consultation-on-changes-to-the-smart-energy-code-and-dcc-licence-conditions/>) we also proposed SEC changes to extend the current charging arrangements by three months to the end of financial year 2021, after which the revised arrangements put forward in the

(which are subsequently referred to in this document as the “**Post 2020 Charging Proposals**”) were that:

- (i) Fixed Charges and Fixed Alt HAN Charges would continue be recovered from Domestic Suppliers pro-rata based on the number of Mandated Smart Metering Systems²² rather than switching to being pro-rated based on the number of Enrolled Smart Metering Systems; and
- (ii) the same pro-rating approach as above would apply also to Non-Domestic Suppliers rather than continuing with the current arrangement of pro-rating based on the number of Enrolled Non-Domestic Smart Metering Systems.

38. The post-2020 consultation noted that under the proposed approach, a mechanism would be needed for DCC to identify advanced meter sites to ensure that non-domestic energy suppliers are not charged for DCC services in respect of those sites. This is because, unlike for Domestic Premises, energy suppliers can in certain circumstances install an Advanced Meter in Non-Domestic Premises rather than a Smart Meter. Consequently, to determine the number of Mandated Smart Metering Systems for a Non-Domestic Supplier, the DCC needs to know the total number of relevant consumers for each Non-Domestic Supplier and the number of Advanced Meters that have been installed in such premises by that supplier.
39. DCC already has information on how many relevant consumers each Non-Domestic supplier has (from the Registration Data). However, it does not currently know how many Advanced Meters each such supplier has. We are therefore proposing changes to the Uniform Network Code and to the Master Registration Agreement to require this information to additionally be sent to the DCC.
40. The information required is a monthly total of the number of Advanced Meters each supplier has. We are proposing changes to the Master Registration Agreement and the Uniform Network Code to require the relevant information to be provided to DCC²³. The information is required to be provided by MPAS Providers and the Central Data Services Provider under the MRA and UNC respectively. We do not believe that the provision of this monthly aggregate information will prove to be to be onerous, and we are proposing to leave the detail of precisely how the information is provided to be resolved by the DCC and the data providers.
41. It should be noted that these changes are inherently linked to the changes to the “Post 2020 charging proposals”, and as such they would only be made if we decide to make the “Post 2020 Charging Proposals”. We are now planning to conclude upon the “Post 2020 Charging Proposals” in the same timescales as we conclude upon the proposals within this consultation document.

“post 2020” consultation would take effect. We have yet to conclude on the proposal to extend the current arrangements and we are planning to do so in January 2020.

²² The number of Mandated Smart Metering Systems is essentially a measure of the number of gas and electricity customers of that supplier, irrespective of whether they actually have a Smart Meter.

²³ Ultimately, it may also be necessary to make a change to the Retail Energy Code to require/permit the information to be sent to the DCC (acting its capacity under the SEC). The drafting of the REC is being progressed by Ofgem as part of its Faster Switching Programme, and we would like to draw this potential additional requirement to Ofgem’s attention so that it can be dealt with as part of their wider programme of change.

Rationale

42. The purpose of this change is to provide DCC with the additional information that it would need to implement the Post 2020 Charging Proposals. Whether or not this change is made is therefore dependent upon whether those changes are made. We are proposing to conclude on both sets of changes (i.e. the Post 2020 Charging Proposals and the proposed changes in this consultation) in the response to this consultation.

The proposed amendments

43. We are proposing changes to paragraph 5.17 of the Uniform Network Code – Transportation Principal Document (Section V) and to Clauses 1.1 and 27.10 of the Master Registration Agreement to require the data to be provided from October 2020. We have also proposed consequential changes to SEC Sections A and E. This is in advance of when the revised charges would take effect (from 1 April 2021) in order to allow DCC time to prepare indicative charges and ensure that it can apply the new arrangements prior to their coming into effect.

Consultation Questions

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| 11. | Subject to the Post 2020 charging proposals being put into effect, do you agree with the proposal to make this additional information available to DCC? |
| 12. | Do you agree that the proposed legal drafting delivers the policy intent? |

7. XML Signing Certificates

Background

44. Recent discussions in the SMKI PMA²⁴ and the Security Sub-Committee have indicated that there is benefit in the differentiation of the Private Keys used to Digitally Sign GBCS Payloads and those used to sign XML²⁵ wrappers.
45. As a first step in facilitating this, it is proposed to introduce a new type of Organisation Certificate - an “XML signing” Certificate. Doing so would allow Users and RDPs to become subscribers for these new types of certificates and permit them to use the associated Private Key to sign the XML wrappers, while reserving their “DigitalSigning” Private Keys for signing GBCS payloads.
46. Over time, it is planned that further changes may be introduced such that XML wrappers may only be signed with this new type of Private Key and for DCC to enforce this in the

²⁴ The Smart Metering Key Infrastructure Policy Management Authority.

²⁵ Extensible Markup Language – a means of prescribing the structure of the communication within the wrapper to ensure it is well formed. XML wrappers are applied to Service Requests and Signed Pre-Commands by DCC Users and the resulting communications are Digitally Signed.

checks that it applies as part of the processing of Service Requests. However, as this additional check will require changes to DCC Systems and may require energy suppliers to change their key usage, the implementation of such an approach will require careful planning. BEIS will continue to discuss these matters with the Security Sub Committee and the SMKI PMA and agree with them a plan for the proposed introduction of any further arrangements.

Rationale

47. This proposed change enables a structured and logical approach to segmenting XML Signing keys and Digital Signing keys used to secure critical commands. This change only needs a relatively minor change to the SMKI arrangements²⁶ and allows Users to start using Private Keys associated with these new Organisation Certificates when they are ready to do so. It also facilitates the phased introduction of requirements to transition using these keys at an appropriate point in the future.

The proposed amendments

48. We are proposing to introduce a new type of Organisation Certificate in the table in L13 for which any Party (other than the DCC) or RDP may become a Subscriber. We have also amended the Table in Annex A to Section L (Smart Metering Key Infrastructure and DCC Key Infrastructure) to include the proposed new Remote Party Role Code.

Consultation Questions

- | | |
|-----|---|
| 13. | Do you agree with the proposal to introduce XML signing certificates? |
| 14. | Do you agree that the proposed legal drafting delivers the policy intent? |

8. Alternative Home Area Network Exempt Premises List

Background

49. Energy suppliers are currently undertaking work that will facilitate the installation and operation of equipment to extend the smart metering Home Area Network (HAN) to premises where a standard 2.4GHz or 868MHz solution is insufficient to do so. Whilst it is envisaged that an Alternative HAN (Alt HAN) solution can be found for all relevant premises, the supply licence conditions provide for a mechanism through which energy suppliers can notify premises which they consider should be exempt.

²⁶ Whilst DCC has confirmed that introducing this new type of Certificate would be technically feasible, there would be a cost to introducing them, since a new type of Certificate is being created and there would be minor process changes for DCC. We will be asking DCC for an estimate of these costs so that this can be taken into account before any final decision to make this change is made.

50. The concept of an Exempt Premises List (EPL) was introduced in the 17 December 2015 consultation on the delivery model for Alt HAN²⁷. The arrangements established were intended to permit energy suppliers to establish an EPL where an Alt HAN is either technically not practical or would only be practicable at a disproportionate cost. A requirement for Secretary of State approval of the EPL was imposed to ensure necessary Government oversight of this process given the potential impact on consumers. Whilst the policy intent was to permit the submission of an EPL the legal drafting itself has the effect of mandating this since the approval of an EPL is necessary prior to Alt HAN Services being made available.

Rationale

51. Energy suppliers, acting collectively via the Alt HAN Forum, are currently trialling Alternative HAN technologies and undertaking nationwide surveys to understand the precise Alternative HAN market size and technology mix. Both exercises will need to be completed before a realistic assessment of any exempt premises can be made. Working with the Alt HAN Forum we understand there is a risk that this work will not be sufficiently advanced to enable the submission and approval of any EPL prior to the planned start date of Alt HAN Services.
52. Given this risk and recognising our original policy intent we propose to remove the requirement for an EPL to be submitted prior to Alt HAN Services being made available. Energy suppliers will still be required to notify and have approved by the Secretary of State any premises they consider should be exempt from the requirements on them to provide an Alternative HAN solution. This will preserve the role for Government and ensure consumer interests are sufficiently protected.

The proposed amendments

53. Changes have been made to the Conditions 55.10, 55.11, 55.14 and 55.14 of the Electricity Supply Licence with parallel changes made to Condition 49 of the Gas Supply Licence.

9. DCC procurement of Relevant Service Capability

Background

54. Relevant Service Capability is capability procured by the DCC for the purposes of securing the provision of Mandatory Business Services. The Mandatory Business includes those services required under the SEC and delivered to SEC Parties including, for example, Core Communication Services.
55. The DCC is currently considering plans to procure Relevant Service Capability in the interest of further securing the long-term viability of its Core Communication Services. This work is being pursued via DCC's Next Generation Communication Hub and

²⁷

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/486339/Consultation_on_Alternative_HAN_Solutions.pdf

Networks (NGCHN) programme. Government has a strong interest in this work since it has the potential to impact our smart metering rollout cost benefit analysis, both because the NGCHN programme may preserve or increase overall smart metering benefits and because the programme could increase costs.

Rationale

56. DCC Services and the energy industry's use of them are entering a mature phase of delivery with tens of thousands of smart meters being installed daily. The Government continues to have a role to play to monitor DCC delivery against the Joint Industry Plan and to ensure expected benefits are realised. In pursuit of this and in light of the emergence of NGCHN programme in particular, we consider it necessary to increase our oversight and control of the DCC's procurement of Relevant Service Capability, including its amendments to existing service provider contracts. This will enable us to consider the extent to which DCC procurement impacts our cost benefit analysis and to ensure that such activity is both necessary and sufficient to deliver the smart metering rollout effectively and efficiently.
57. This oversight and control is considered necessary in relation to the NGCHN programme but may also extend to other material procurements that DCC undertake. As such we propose to make changes to the DCC Licence to require, for a temporary period determined by the Secretary of State, that DCC submit the business case and any other relevant documentation we deem appropriate in relation to any material procurement of Relevant Service Capability from this point. DCC will be required to gain Secretary of State approval prior to proceeding with the procurement. We would expect DCC to have engaged relevant stakeholders and for the results to be referred to in the business case. We may also further engage stakeholders to assist with our analysis of the business case.
58. We intend to ensure that our role is proportionate by being limited in its scope and frequency. We will, during the consultation period and beyond, work with the DCC to agree a set of principles governing this process. These will include the nature and size of procurements in scope, the process and associated timescales associated with submission and review of documentation and the likely nature of our analysis.
59. Further, when procuring Relevant Service Capability, the DCC Licence Condition 16.11(d) requires that it incorporates flexibility to adapt to changing service user requirements. Since Relevant Service Capability relates only to those services procured for securing the provision of the Mandatory Business Services it follows that such flexibility may not include that which DCC might deem useful in the interests of offering Permitted Business Services. Such an interpretation of the legal text aligns with our original policy intent in this regard. However, for the avoidance of doubt, we propose to make this explicit via an additional change to the Licence.

The proposed amendments

60. We have proposed new DCC licence conditions 16A, 16B and 16C and a new condition 16.12A that introduces a new Principle 6 relating to the procurement of Relevant Service Capability.

10. Corrections

Background

61. We are proposing to make two corrections to SEC drafting. The first relates to the table in Section L3.18 of the SEC (which deals with which parts of the DCC Live Systems various types of Organisation Certificate may be Issued to). In this table, the Access Control Broker Certificate is incorrectly recorded as being Issued to limb (a) of DCC Live Systems whereas it should refer to limb (b). We are proposing to correct this.
62. We are also proposing corrections to Section L (Smart Metering Key Infrastructure) of the SEC and to Section A (Definitions & Interpretation) to clarify the definitions of Symmetric Key and Contingency Symmetric Key and implicitly Secret Key Material.
63. The need for this latter change stems from the fact that the current SEC definition of “Symmetric Key” is *“a key derived from a shared secret in accordance with the GB Companion Specification”*. Whilst this captures the requisite symmetric keys used in end-to-end communications, we do not believe that the symmetric key that is used to encrypt the Contingency Public Key²⁸ necessarily falls within this definition. Technically therefore, as things stand, this symmetric key does not fall within the definition of “Symmetric Key” and consequently does not fall within the definition of “Secret Key Material” and hence is not captured by the obligations that apply in relation to Secret Key Material²⁹. Such obligations in Section G (Security) on both DCC and Users include, for example, a requirement that the lifecycle management of Secret Key Material is included in their Information Security Management Systems.
64. Our proposed changes therefore clarify that the symmetric key used to encrypt the Contingency Private Key does fall within the definition of Symmetric Key, and hence also Secret Key Material.

Rationale

65. These proposed changes are concerned with important security functionality and we believe that it is appropriate to correct such provisions where we identify that this is necessary. In principle, without them, it would be possible for lesser security controls to be applied and for DCC still to be compliant with the SEC, thereby introducing a potential security risk.

The proposed amendments

66. The changes we are proposing to deal with this are to amend the table in Section L3.18, amend the definition of Relevant Private Key in L10.30(c) and to make a number of

²⁸ The Contingency Public Key is the public key that corresponds to the Contingency Private Key. The Contingency Private Key is a key that can be used to recover from extreme compromises including, for example in circumstances when even the Recovery Key has been compromised. Given the potency of the Recovery Private Key, unusually even its corresponding Public Key is encrypted. The key used to encrypt it is the Contingency Symmetric Key.

²⁹ Practically however, we believe that such keys would be used in an appropriately secure manner. Representatives of BEIS and the SMKI PMA are in discussion with DCC and its relevant service providers (DSP and TSP) to confirm the details of the actual current arrangements.

consequential changes to SEC Sections A (Definitions and Interpretation) and L (Smart Metering Key Infrastructure and DCC Key Infrastructure).

Consultation Questions

- | | |
|-----|---|
| 15. | Do you agree with the proposed changes? |
| 16. | Do you agree that the proposed legal drafting delivers the policy intent? |

Annex 1 to Appendix A – Example Technical Specification Applicability Tables

TS Applicability Tables

It should be noted that references to versions of specifications that can no longer be used operationally have been removed from these tables.

SMETS1 ESME

ESME Version	Installation Start Date	General Installation End Date	PPM Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
1.2	18/12/12	05/12/18	15/03/19	18/12/12	Not determined	Not applicable	Not applicable	Not applicable

SMETS1 GSME

GSME Version	Installation Start Date	General Installation End Date	PPM Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
1.2	18/12/12	05/12/18	15/03/19	18/12/12	Not determined	Not applicable	Not applicable	Not applicable

SMETS1 IHD

IHD Version	Installation Start Date	General Installation End Date	PPM Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
1.2	18/12/12	05/12/18	15/03/19	18/12/12	Not determined	Not applicable	Not applicable	Not applicable

SMETS2+ ESME and Relevant Versions of GBCS

ESME Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
2.0	30/09/16	27/10/20	30/09/16	Not determined	1.1	06/11/17	Not determined
3.1	08/11/18	27/10/20	08/11/18	Not determined	2.0	28/10/18	Not determined
4.2	29/11/19	Not determined	29/11/19	Not determined	3.2	29/11/19	Not determined
5.0	Not determined	Not determined	Not determined	Not determined	4.0	Not determined	Not determined

SMETS2+ GSME and Relevant Versions of GBCS

GSME Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
2.0	30/09/16	27/10/20	30/09/16	Not determined	1.1	06/11/17	Not determined
3.1	08/11/18	27/10/20	08/11/18	Not determined	2.0	28/10/18	Not determined
3.1	08/11/18	27/10/20	08/11/18	Not determined	2.1	28/10/18	Not determined
4.2	29/11/19	Not determined	29/11/19	Not determined	3.2	29/11/19	Not determined

HCALCS and Relevant Versions of GBCS

HCALCS Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
2.0	30/09/16	27/10/20	30/09/16	Not determined	1.1	06/11/17	Not determined
3.1	08/11/18	27/10/20	08/11/18	Not determined	2.0	28/10/18	Not determined
3.1	08/11/18	27/10/20	08/11/18	Not determined	2.1	28/10/18	Not determined
4.2	29/11/19	Not determined	29/11/19	Not determined	3.2	29/11/19	Not determined
5.0	Not determined	Not determined	Not determined	Not determined	4.0	Not determined	Not determined

SMETS2+ IHD and Relevant Versions of GBCS

IHD Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
2.0	30/09/16	27/10/20	30/09/16	Not determined	1.1	06/11/17	Not determined
3.1	08/11/18	27/10/20	08/11/18	Not determined	2.0	28/10/18	Not determined
3.1	08/11/18	27/10/20	08/11/18	Not determined	2.1	28/10/18	Not determined
4.2	29/11/19	Not determined	29/11/19	Not determined	3.2	29/11/19	Not determined

PMID and Relevant Versions of GBCS

PPMID Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
2.0	30/09/16	27/10/20	30/09/16	Not determined	1.1	06/11/17	Not determined
3.1	08/11/18	27/10/20	08/11/18	Not determined	2.0	28/10/18	Not determined
3.1	08/11/18	27/10/20	08/11/18	Not determined	2.1	28/10/18	Not determined

PPMID Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
4.2	29/11/19	Not determined	29/11/19	Not determined	3.2	29/11/19	Not determined

CHTS and Relevant Versions of GBCS

CHTS Version	Installation Start Date	Installation End Date	Maintenance Start Date	Maintenance End Date	Relevant GBCS Version	Applicability Period Start Date	Applicability Period End Date
1.0	30/09/16	27/10/19	30/09/16	27/10/19	1.1	06/11/17	Not determined
1.1	28/10/18	Not determined	28/10/18	Not determined	2.0	28/10/18	Not determined
1.1	28/10/18	Not determined	28/10/18	Not determined	2.1	28/10/18	Not determined
1.3	29/11/19	Not determined	29/11/19	Not determined	3.2	29/11/19	Not determined
1.4	Not determined	Not determined	Not determined	Not determined	4.0	Not determined	Not determined

GBCS and Relevant Versions of CPA Security Characteristics

GBCS Version(s)	Relevant Versions of CPA Security Characteristics
• 1.0 • 1.1 • 2.0 • 2.1 • 3.0 • 3.1 • 3.2 • 4.0	The most recent Sub-Version of Principal Version 1 of the document entitled ‘CPA Security Characteristic: Smart Metering – Communications Hub’ published on the NCSC_website at the time the relevant Device Model commences the CPA Certification or re-Certification process (as applicable). The most recent Sub-Version of Principal Version 1 of the document entitled ‘CPA Security Characteristic: Electricity Smart Metering Equipment’ published on the NCSC website at the time the relevant Device Model commences the CPA Certification or re-Certification process (as applicable). The most recent Sub-Version of Principal Version 1 of the document entitled ‘CPA Security Characteristic: Gas Smart Metering Equipment’ published on the NCSC website at the time the relevant Device Model commences the CPA Certification or re-Certification process (as applicable). The most recent Sub-Version of Principal Version 1 of the document entitled ‘CPA Security Characteristic: Smart Metering – HAN Connected Auxiliary Load Control Switch’ published on the NCSC_website at the time the relevant Device Model commences the CPA Certification or re-Certification process (as applicable).

Annex B: Proposed Legal Drafting

- Attachment 1 – Gas supply licence conditions
- Attachment 2 – Electricity supply licence conditions
- Attachment 3 – DCC licence conditions
- Attachment 4 – SEC Section A changes
- Attachment 5 – SEC Section F changes
- Attachment 6 – SEC Section E changes
- Attachment 7 – SEC Section G changes
- Attachment 8 – SEC Section L changes
- Attachment 9 – SEC Section N changes
- Attachment 10 – SEC Section T changes
- Attachment 11 – SEC Section X changes
- Attachment 12 – Uniform Network Code changes
- Attachment 13 – Master Registration Agreement changes