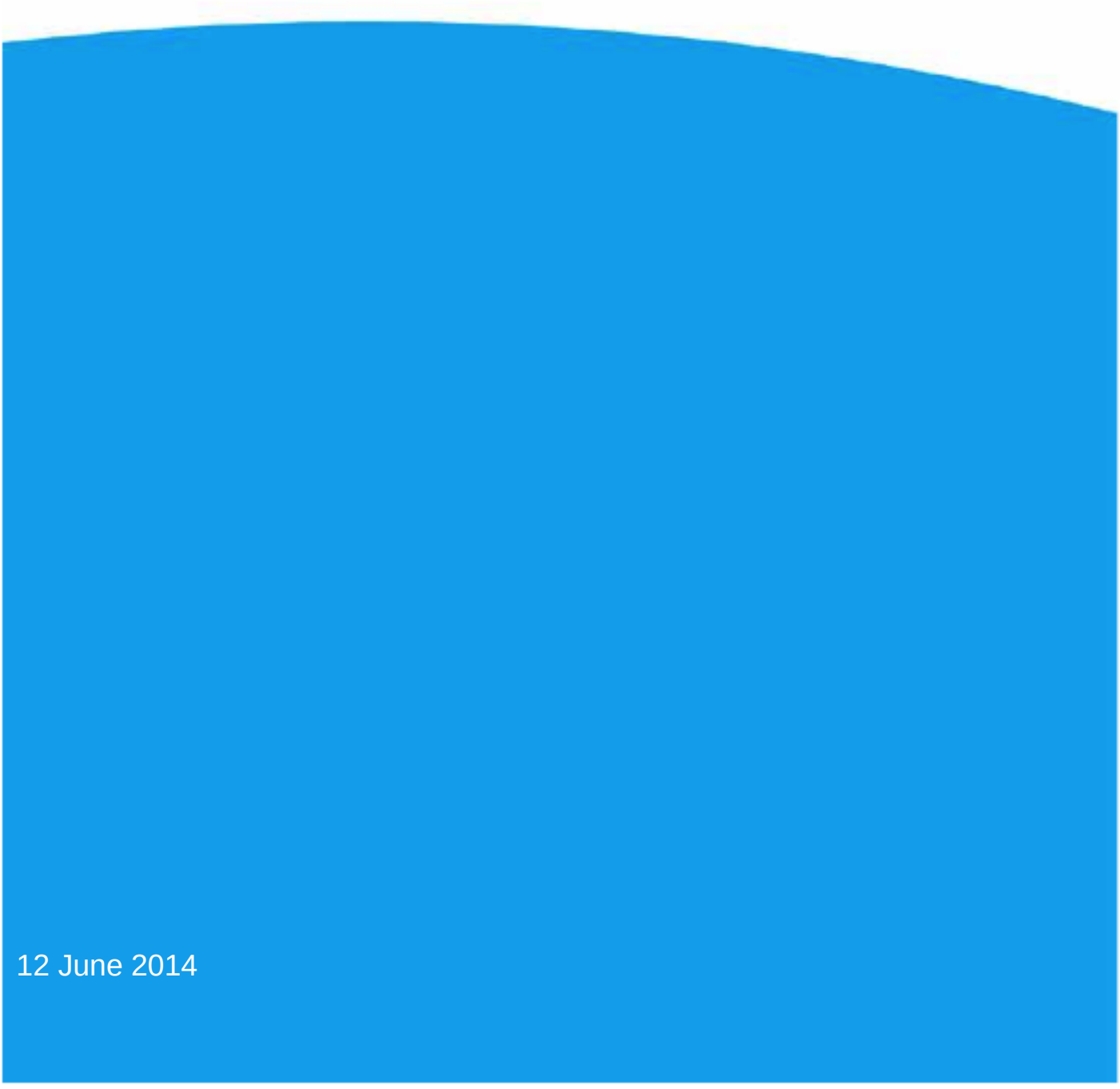
Department of Energy & Climate Change

Smart Metering Implementation Programme

Government response to the consultation on New Smart Energy Code Content (Stage 3) – Part B



12 June 2014

URN 14D/069

This document is also available from our website at www.gov.uk/decc

General information

Purpose of this document:

This document sets out the Government's response to the consultation on the content of the third stage of the Smart Energy Code, which sets out arrangements related to the management of Smart Metering in Great Britain.

Issued: 12June 2014

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Territorial extent:

This consultation response 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 of Enterprise, Trade and Investment.

Additional copies:

You may make copies of this document without seeking permission. An electronic version can be found at:

https://www.gov.uk/government/consultations/new-smart-energy-code-content-stage-3

Other versions of the document in Braille, large print or audio-cassette are available on request. This includes a Welsh version. Please contact us under the above details to request alternative versions.

Quality assurance:

This consultation has been carried out in accordance with the Government's Consultation Principles, which can be found here:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/60937/Consultation-Principles.pdf

If you have any complaints about the consultation process (as opposed to comments about the issues which are the subject of the consultation) please address them to:

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1. Executive Summary

1.1 The Smart Energy Code

1 The Smart Energy Code (SEC) is a new industry code which has been created through, and came into force under, the DCC Licences. The SEC is being introduced in stages. The consultation on Stage 3 of the SEC (SEC 3) was published on 16 December 2013 and this response document sets out our conclusions. Taking into account the links between some of the SEC 3 text and that which will follow with stage 4 of the SEC (SEC 4), we intend to introduce only some of the concluded SEC 3 legal drafting into the regulatory framework now. Annex C sets out the legal drafting for those areas. Legal drafting for the remainder will be published with the SEC 4 consultation. This Executive Summary summarises the main conclusions, with detail provided in the main body of the document together with the key proposed changes to the SEC 3 consultation legal text.

1.2 Smart Metering Key Infrastructure

2 The Smart Metering Key Infrastructure (SMKI) will provide a secure and effective means of ensuring that messages to and from Smart Metering Equipment are properly authenticated, provide integrity and where applicable provide non-repudiation through the use of public key cryptography and Certificates. Views were sought on a number of areas relating to the SMKI:

- Policy Management Authority - Policy conclusions were published 31 March 2014[1]. The associated legal text is now provided.
- SMKI Services - The majority of respondents agreed with our proposed SEC drafting with respect to the SMKI Services (Question 3). Some updates to the legal text have been made to reflect comments received.
- Certificate Policies - Two Certificate Policies covering devices and organisations were consulted on. The majority of respondents agreed with the proposed SEC legal text for the Certificate Policies.
- SMKI Recovery Procedures - The majority of respondents supported the approach in response to Question 10, with further information being requested in some areas. Content is being introduced reflecting the content, obligations and the process for developing the recovery procedure.

3 Each of the above will be laid in parliament shortly to come into effect July 2014. Further consulted upon SMKI content will be introduced to different timescales:

- SMKI Service and SMKI Repository Testing - The majority of respondents supported proposals in relation to SMKI and Repository Testing (SRT). It is proposed to ensure live certificates are available from the start of Interface Testing, up to six months before DCC go-live and requiring Large Suppliers to be ready to participate in SRT. We will also align policy for SMKI testing with the wider testing arrangements for a minimum of two Large Suppliers. This legal text will be laid shortly, with transitional obligations coming into effect July 2014 and enduring obligations to follow.
- Providing the SMKI Repository - An SMKI Repository will be required so that Subscribers can access Certificates and a number of related SMKI documents. Some updates to the legal text have been made to reflect comments received and

[1] the Government Response to the Consultation on New Smart Energy Code Content (Stage 3) – Part A (PMA)

this will be laid in Parliament shortly and added to the SEC in July, but will not be in force until later.

- Using the SMKI Service - The consultation included proposals in relation to opted out non-domestic use of the SMKI and the liabilities, warranties and indemnities that will be associated with the use of the SMKI. We will consult further on the use of SMKI and our approach to non-domestic Suppliers; and further information on Liabilities, Warranties and Indemnities. These will be included in SEC 4.

1.3 Other Security Requirements

4 Obligations already placed on the DCC require that the operations controlling the supply of energy to the premise are located in the UK. Similar arrangements have been considered for discrete functions of User Systems that control the supply of energy. There was strong support for the positions set out in the consultation and we will implement the proposed legal text alongside other future changes to this section.

1.4 Supplier Nominated Agents

5 Questions 18, 19 and 20 sought views on the most appropriate approach to enabling Meter Operators (MOPs) and Meter Asset Managers (MAMs) to access to DCC Services directly, taking into account development of the overall security and technical architecture. This response document sets out our proposed approach to allowing MOPs and MAMs access to a limited set of DCC service. Legal drafting in this area will be finalised and published in the SEC 4 consultation version.

1.5 DCC Testing

6 This section set out requirements and obligations on various parties during each test phase, with the procedure by which the DCC is to develop User Entry Process Common Test Scenarios. Following feedback on Question 21, we intend to introduce the legal text with some amendments reflecting responses and changes to the DCC's delivery timetable. The majority of respondents supported the retention of End-to-End test stage (Question 22). We consider that the phase will add impetus to Parties completing testing and have added this stage to the legal drafting. Following responses to Question 23 we will re-define 'Projected Operational Service Levels' in the SEC as 'Volume Scenarios' and require the DCC to verify that testing against them has been achieved, as part of its exit reports for SIT and Interface Testing. The related legal text will be laid in parliament shortly to come into effect July 2014.

1.6 Issue resolution during Testing

7 The DCC Service Providers have been contracted to provide an issue resolution process, including the provision of a test management tool, to all test participants for use in all phases of testing. All respondents agreed that there was a need for an issues resolution process (Question 24) and we have incorporated updates to the proposed legal text as a result of the comments received. Following feedback on Question 25, the legal drafting will be amended to ensure that anonymised information on testing issues will be provided to SEC Parties only. The related legal text will be laid in parliament shortly to come into effect July 2014.

1.7 Smart Metering System Requirements

8 We consulted on a number of provisions relating to technical specifications including: requiring a 'certified products list' (CPL) to be maintained to provide a list of devices that have undergone specified assurance processes; to make available a disputes resolution process related to technical specifications; and to ensure the Data and Communication

Company can communicate with installed equipment to provide the services required of it. In the light of responses we have amended some of the detailed processes and drafting in these areas. In addition we are including finalised legal text to introduce requirements on the SEC Panel to put in place the Technical Sub Committee. This was concluded on in SEC 2. The related legal text will be laid in parliament shortly to come into effect July 2014.

1.8 Additional Content

9 This document also concludes on previously consulted on content relating to DCC Performance Reporting and Recovery of Liability Costs.

10 DCC Performance Reporting - The SEC 2 consultation included two questions relating to Licence obligations on the DCC to monitor its service performance and provide annual service reporting. The SEC 2 Consultation Response did not conclude on or set out final legal drafting for performance reporting to enable some additional issues to be resolved. Conclusions on these issues are included here which we consider balances the need for transparency and provision of relevant information to SEC Parties, while making allowance for the commercial sensitivities. Revised legal drafting reflecting these conclusions will be introduced into the regulatory framework at a later date.

11 Recovering Liability Costs - Under the SEC, the DCC recovers monies for a valid claim by a SEC Party (due to a liability event) on the basis of market share. The April 2013 SEC consultation put forward a proposal to cap net liabilities. After considering this further we consider that, whilst capping the allocation of net liabilities may seem rational, the implementation of such an approach could result in a disproportionate allocation against smaller SEC Parties given the current share of DCC charges for the Large Suppliers. We therefore conclude that the current SEC drafting in (K9.6 and K9.7) should be retained.

12 In addition some modifications are also being made to the DCC Licences. Two clarifications have been identified as necessary to ensure that the original policy and regulatory intent is achieved and two minor corrections have been identified. The related legal text will be laid in parliament shortly to come into effect in July 2014.

2. Introduction

2.1 A New Industry Code

13 Smart Meters are the next generation of gas and electricity meters. They will offer a range of intelligent functions and provide consumers with more accurate information, bringing an end to estimated billing. Consumers will have near-real time information on their energy consumption to help them control and manage their energy use, save money and reduce emissions.

14 On 23 September 2013, a new licensed entity, the Data and Communications Company (DCC), was established. Together with its sub-contractors, the Data Service Provider (DSP) and Communications Service Providers (CSPs), the DCC will provide a Smart Meter communications service. The DCC will offer a means by which Suppliers, Network Operators and others can communicate remotely with Smart Meters in Great Britain.

15 The Smart Energy Code (SEC) is a new industry code which has been created through, and came into force under, the DCC Licence. The SEC is a multiparty contract which sets out the terms for the provision of the DCC's Smart Meter communications service, and specifies other provisions to govern the end-to-end management of Smart Metering.

16 The DCC, Suppliers of energy to domestic and smaller non-domestic customers, and Network Operators are required by licence to become parties to the SEC and comply with its provisions. Other bodies who wish to use the DCC's services, such as energy efficiency and energy service companies, or those that require SMKI Certificates to be placed on smart metering devices, must accede to the SEC to do so.

17 Consistent with other industry codes, the SEC is self-governed, enabling participants to raise change proposals, debate issues, and resolve disputes without the need for day-to-day regulatory intervention. It is managed by a Panel of experts drawn from SEC Parties ("the SEC Panel"), subject to the regulatory oversight of Ofgem. The Panel is supported in the day to day administration of the SEC by a Code Administrator and Secretariat (SECAS).

2.2 Stage 3 of the Smart Energy Code

18 The SEC is being introduced in stages. The consultation on Stage 3 of the SEC (SEC 3) was published on 16 December 2013[2]. This document sets out our conclusions to that consultation, covering:

- Chapter 2 – Smart Metering Key Infrastructure (SMKI) arrangements;
- Chapter 3 – Supplier Nominated Agents – setting out the approach for Meter Operators and Meter Asset Managers to access DCC services;
- Chapter 4 – DCC Testing – setting out the testing regime; and
- Chapter 5 – Smart Metering System Requirements – setting out provisions relating to Device testing, certification and configuration.

19 Policy conclusions on the establishment of the SMKI Policy Management Authority (SMKI PMA) were published on 31 March 2014 in the *Government Response to the Consultation on New Smart Energy Code Content (Stage 3) – Part A (PMA)*[3]. The 31

[2] https://www.gov.uk/government/consultations/new-smart-energy-code-content-stage-3

[3] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/298843/sec3a_government_response.pdf

March document addressed the policy questions raised in relation to Questions 1, 2 and 4 of the SEC 3 consultation, concerned with the composition, duties, appointment and powers of the SMKI PMA; as well as seeking views on the proposed approach to securing the timely appointment of SMKI PMA members. A summary of proposed changes to the legal text concerning the topics covered in this "Part A" response are now set out in Section 3.2.

20 Changes have also been made to Section A (Definitions and Interpretation) and Section X (Transition). It is recognised that parts of the SEC 3 legal text link to parts of the SEC which have yet to be introduced. The Interpretation Text in Section A has therefore been amended to enable reference to be made to reference to the decision or consultation document concerning the intended future definition of such expression most recently published. The Transition provisions in Section X have been updated to reflect the effective dates of the various provisions in SEC 3.

2.3 Additional areas covered by this response

21 To provide additional certainty to DCC service users and to facilitate the design and build of Communication Service Provider systems, this document also sets out conclusions from previous consultations (SEC 1 and SEC 2), covering[4]:

- Chapter 6 – DCC Performance Reporting
- Chapter 7 – Recovering Liability Costs

22 We are also making some minor modifications to the DCC Licences. Two clarifications have been identified as necessary to ensure that the original policy and regulatory intent is achieved and two minor corrections have been identified.

23 The first change adds the word 'percentage' to licence condition 36.8. This is a clarification to make it clear that the change in the Retail Price Index referred to is a *percentage* change rather than for example a *subtraction*. The policy intent has always been clear and the proposed change is for the avoidance of doubt. The second change adds text to licence condition 36.15 to make it clear that the correction factor in the DCC's price controls, which ensures that any under- or over-recovery in a given year is corrected for in future years, is to be set at zero in the first regulatory year. Again this is for the avoidance of doubt.

24 The third change makes a minor correction in the licences as published at award. The table in Condition 36 Appendix 1 of the awarded licence incorrectly assumes a licence start-date of August, rather than the actual start date of September. The correction shifts the timeframe in which payments are made by DCC users, but does not alter the total they will pay. And the final change corrects a paragraph numbering error – Schedule 3 to the awarded licence erroneously contains two paragraphs numbered 3.4.

25 The minor changes made here do not change the policy conclusions, and we have consulted with affected parties, including Ofgem. The changes outlined were supported and the legal drafting of the modifications is included at annex C. This will be laid in parliament shortly to come into effect in July 2014.

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[4] SEC1:https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/43063/4896-smart-energy-code-con-doc.pdf

SEC 2:https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/251280/A_Consultation_on_New_Smart_Energy_Code_Content_-_SEC 2.pdf

2.4 Conclusions on legal text of Stage 3 of the Smart Energy Code

26 The Government Consultation on draft legal text for Stage 3 of the SEC was published on 16 December 2013 and closed on 14 February 2014. It contained 26 questions. These, and a summary of responses, are set out in Annex B.

27 There were 21 responses to the consultation across a range of organisations, including:

- Large and Small energy Suppliers;
- electricity distribution and gas transportation networks (Network Operators);
- trade bodies;
- energy data managers
- energy code administrators
- meter technology providers; and
- Ofgem.

28 A list of those who have responded to this consultation is provided in Annex A. Responses to this consultation are available on the Government website[5].

2.5 Introducing SEC 3 content into the regulatory framework

29 The first stage of the SEC was designated in September 2013. Since then, we have undertaken consultation on content for stage 2 of the SEC. Part of this Stage 2 content has formally been introduced into the SEC through use of powers under Section 88 of the Energy Act 2008. For the remainder, we set out conclusions and legal drafting which will be introduced at a later date. A similar approach will be followed for SEC 3. The table below sets out in the first column the SEC 3 content that will be introduced now, with the intention of it coming into force in July (although some of the provisions will not be 'turned-on' until a later date). The second column details the SEC 3 content which will be implemented subsequently. For the sections to be introduced in July we are publishing finalised legal text with this conclusions document (Annex C). Every effort has been made to ensure the explanatory text in the main body of this consultation response reflects the legal text, however the legal drafting should be treated as definitive.

30 The content of the SEC which has been given legal effect is administered by SECAS, who can be contacted via the SEC website[6].

SEC 3 Content	
Introduced into regulatory framework – summer 2014	To be introduced at a later date
A Definitions and Interpretation updated as relevant	
F2 Smart Metering System Requirements - Certified Products List F3 Smart Metering System Requirements - Panel Dispute Resolution F4 Smart Metering System Requirements - Operational Functionality (note: F2, F3 and F4 will be introduced into the regulatory framework but will not be "turned on" until a later date)	F5 Smart Metering System Requirements - Firmware updates

[5] https://www.gov.uk/government/consultations/new-smart-energy-code-content-stage-3

[6] https://www.smartenergycodecompany.co.uk/

SEC 3 Content	
Introduced into regulatory framework – summer 2014	To be introduced at a later date
	G Changes to G
H14 Testing Services	H1 Changes to H1 H2 Supplier Nominated Agents H3 DCC User Gateway H4 Firmware updates H5 Suspended to commissioned status H13 Performance Reporting
L1 Policy Management Authority L2 SMKI Assurance L3 The SMKI Services (part) L4 SMKI Service Interface L5 SMKI Repository L6 SMKI Repository Interface L7 SMKI and Repository Entry processes L8 SMKI Performance Standards and Demand Management L9 SMKI Document Set L10 Recovery procedure (note: L5 and L8 will be introduced into the regulatory framework but will not be "turned on" until a later date)	L3 The SMKI Services (part)
T1 Testing - Device Selection methodology T2 Testing - System Integration testing T3 Testing - Interface testing T4 SMKI & Repository Testing T5 Development of Test Scenario Document - SMKI T6 Development of Test Scenarios	
X Transition	
Appendix A Device Certificate Policy Appendix B Organisation Certificate Policy Appendix C Compliance Policy	

2.6 The future – SEC Stage 4 and Subsidiary Documents

31 A consultation on the next stage of the SEC (Stage 4) is expected to be published later in the summer. This consultation is expected to provide additional draft SEC content to support testing and User Entry. It will be accompanied by publication of a full version of the SEC legal text, including the SEC 3 text. This recognises that, in some areas, the SEC 3 content is closely related to that which will follow in SEC 4. A consolidated version incorporating both SEC 3 and SEC 4 content will be produced as part of the SEC 4 consultation.

32 In addition, over the course of the next nine months a large number of technical documents will be introduced into the regulatory framework as SEC Subsidiary Documents, forming appendices to the SEC. In each case, the requirements for these documents is specified in the SEC or the DCC Licence. Some of these documents will be developed by the DCC; others will be developed by DECC, working with stakeholders. These SEC Subsidiary Documents will be subject to appropriate consultation prior to being incorporated into the SEC.

33 With regard to those Subsidiary Documents being developed by the DCC, the DCC Licence and the SEC place obligations on the DCC to prepare and submit those documents to the Secretary of State for their incorporation into the SEC. The DCC is

also generally required to comply with any direction from the Secretary of State to produce and submit any further drafts of the documents that the Secretary of State deems necessary.

34 It is important that stakeholders engage with the DCC's consultations on these Subsidiary Documents in the same way that they would with Government consultations on future SEC content, given that their technical and procedural contents are directly linked to SEC requirements. In this context it should be noted that in determining whether to incorporate the documents into the SEC or to require that the documents are resubmitted, the Secretary of State will consider any issues that arose during the consultation process which remain unresolved. Of relevance to this SEC 3 consultation response are:

- Message Mapping Catalogue
- Recovery Procedure
- SMKI Registration Authority Policies & Procedures
- SMKI Interface Design Specification
- SMKI Code of Connection
- SMKI Repository Interface Design Specification
- SMKI Repository Code of Connection
- Common Test Scenarios Document
- SMKI and Repository Test Scenarios Document

3. Smart Metering Key Infrastructure (SMKI)

3.1 Introduction to SMKI

35 The Smart Metering Key Infrastructure (SMKI) will provide a secure and effective means of ensuring that messages to and from Smart Metering Equipment are properly authenticated, provide integrity and where applicable provide non-repudiation through the use of public key cryptography and Certificates. The SMKI is based on existing industry and international Public Key Infrastructure (PKI) standards, mechanisms and principles. PKI is used widely across business sectors where secure transactions are needed, including for example, internet trading, banking transactions and billing systems. In supporting existing secure business operations with their consumers, most users of the DCC's services should be familiar with PKI.

36 The SMKI arrangements have been modelled on the widely used standard PKI approach to establish trusted relationships between the equipment in premises (Devices), and the DCC and DCC users (Organisations) that communicate with that equipment. The SMKI establishes trust by:

- providing authentication that messages originate from an authorised Party that is entitled to send the message;
- ensuring the integrity of the message in transit, preventing undetected interference; and
- where appropriate, providing a reliable audit trail to guarantee that the sender of a message cannot later deny having sent it (non-repudiation).

SEC 3 consultation on SMKI

37 The SEC 3 consultation set out an introduction to SMKI with draft legal text in a number of areas. The table below lists those topics on which content has been consulted on and concluded. Finalised legal drafting is now provided for these topics (annex C), which will be laid in Parliament following publication of this response.

Section of response document	SMKI Topic
2.2	SMKI Policy Management Authority and SMKI Assurance (including the Compliance Policy) – the substantive policy response to this topic was published in March 2013 and finalised legal drafting is now provided.
2.3	The SMKI Service
2.4	Certificate Policies
2.5	SMKI Repository
2.6	SMKI Recovery Procedures
2.7	SMKI Service and SMKI Repository Testing

38 For these topics the following sections (3.2-3.7) of this response document are structured to provide a summary of the issue under consideration, the Government's consideration of the issue taking into account stakeholder comments, its conclusions and a summary of changes to the legal drafting.

Further development of SMKI and other security requirements

39 The SEC 3 consultation also set out policy positions on using the SMKI Service. The consultation sought views on the proposed approach to parties using the SMKI services in particular opted-out non domestic Suppliers and the proposed approach for the SEC with regard to liabilities, warranties and indemnities. Legal drafting was not provided in these areas and, recognising the links with future development of the SEC, further consultation and legal drafting will be published on these topics in SEC 4.

40 In addition, some of the SMKI content will be further developed and added to as part of the SEC 4 consultation. A number of other relevant documents will also be produced by the DCC (these have been listed in section 1.5).

41 Views were also sought in the SEC 3 consultation on other security requirements namely the location of DCC user systems and the storage of cryptographic material. In these areas conclusions are set out below, and legal drafting will be finalised in the SEC 4 consultation. Section 3.8 and 3.9 set out the approach in these areas.

3.2 SMKI Policy Management Authority and SMKI Assurance

Summary of Issue under Consideration

Views were sought on the establishment of an SMKI Policy Management Authority and on SMKI Assurance arrangements.

There were three questions in these areas:

The SMKI Policy Management Authority: Question 1 sought views on the proposed approach and text for the SEC with respect to the SMKI Policy Management Authority.

The SMKI Policy Management Appointment: Question 2 sought views on the proposed approach and text for the SEC with respect to securely the timely appointment of SMKI Policy Management Authority members.

SMKI Assurance: Question 4 sought views on the proposed approach and text for the SEC with respect to SMKI Assurance.

Government Consideration of Issue

42 Policy conclusions on the establishment of the SMKI Policy Management Authority (PMA) and on SMKI Assurance were published 31 March 2014 as the *Government Response to the Consultation on New Smart Energy Code Content (Stage 3) – Part A (PMA)*[7]. This confirmed conclusions on the composition, duties, appointment and powers

[7] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/298843/sec3a_government_response.pdf

of the SMKI PMA; and the approach to securing the timely appointment of SMKI PMA members and on the SMKI assurance arrangements and compliance policies.

43 The resulting changes to the legal drafting were not set out in the March response document and are now summarised below with the final legal text set out in Annex C. Analysis and discussion of responses is not repeated here, however for ease of reference the conclusions are set out below. Following further discussions with assurance specialists we anticipate that further modest changes will be required to the Compliance Policy, particularly with respect to the initial assurance assessment report and its timing. We will consult on these changes in SEC 4.

Summary of Government Conclusion

Establishment of PMA

The SEC 3 Part A response document concluded that the SMKI PMA's duties will include:

- periodically reviewing the effectiveness of the SMKI SEC Document Set and evaluating whether it continues to contribute to meeting the SEC objectives;
- proposing modifications to the SMKI SEC Document Set (however the modifications themselves would go through the usual SEC modification process);
- providing support and advice on proposed modifications to the SMKI SEC Document Set, and other SMKI-related modifications;
- approving the Certification Practice Statement[8];
- ensuring compliance with the SMKI SEC Document Set and Certification Practice Statement, which includes the maintenance of a Compliance Policy, itself setting out the scope of independent assurance of the SMKI Service (see below for further detail on SMKI Assurance);
- supporting the SEC Panel in consideration of action following instances of material non-compliance with the SMKI Document Set; and
- supporting the SEC Panel with respect to the SMKI arrangements as the Panel or other SEC sub-committees may request.

The composition of the SMKI PMA was confirmed as follows:

- Voting members: the PMA Chair (casting vote only), Large Suppliers (two seats), Small Suppliers (one seat), Networks (one seat) and a representative of each the SEC Security and Technical Sub-Committees;
- Non-voting Attendees: a PKI Specialist and representatives from each of the DCC, Ofgem and DECC; and
- Other non-voting Attendees to be invited by the Chair as appropriate.

SMKI Assurance and Compliance Policy

[8] The Certification Practice Statement (CPS) is the statement by the DCC to the PMA to confirm how the DCC will apply the two Certificate Policies in practice, and how the DCC will meet its obligations under the two Certificate Policies.

The SEC 3 Part A response document concluded that:

- The SEC Panel, on behalf of SEC Parties, needs assurance that the SMKI Service is being operated in accordance with the SMKI SEC Document Set and also in line with the Certification Practice Statement; and
- Therefore the DCC acting in its roles as the SMKI Service Provider and SMKI Repository Provider, will be required to comply with the SMKI Compliance Policy, which may also include requirements for Subscribers.

The purpose of the SMKI Compliance Policy is to set out:

- the characteristics of an independent SMKI assurance scheme and its operation;
- what the DCC (acting in its role as SMKI Service Provider and SMKI Repository Provider) must do to comply;
- any compliance rules for Subscribers; and
- how the SMKI PMA will monitor and enforce that compliance.

Summary of Changes to the Consultation Legal Drafting

SEC Section	Content
L1 SMKI Policy Management Authority	• The addition of a new 'Network Operator' SMKI PMA voting member and consequential amendments relating to the appointment of that member. • The ability of all voting members (not just the Chair as under the previous drafting) to nominate an alternate, provided that alternate is not employed by the same organization or an affiliate as the nominator. • The SMKI Specialist must be independent of the Independent SMKI Assurance Service Provider and any SEC Party, including the DCC. • The ability of the PMA to bring forward a modification proposal if it considers that SMKI Participants who are subject to assurance assessments should be liable to meet the costs in full or part of that assessment.
L2 SMKI Assurance	• Where a user has had a remedial action plan imposed by the SEC Panel, that plan or elements of it, an anonymised version of that plan will only be made available to other users if such publication is necessary to support the overall security of the SMKI arrangements. • A 'for the avoidance of doubt' addition to the interpretation provisions in A2.1 that makes it clear that premises of a Party shall include references to any premises owned or occupied by that Party or their sub-contractors (as appropriate to the context).

3.3 The SMKI Service

Summary of Issue under Consideration

A central SMKI Service is needed to ensure the consistent, secure and effective operation of SMKI across all the participants. Under the SEC, the DCC will be required to provide an SMKI Service for both Organisations and Devices. Schedule 5 of the DCC Licence included a high level obligation for the DCC to provide the SMKI Service, and, following a procurement that was initiated in December 2013, the DCC has appointed a third party SMKI

Trusted Service Provider. The requirements for the SMKI Service have been aligned with industry best practice for operating a Public Key Infrastructure.

Provision of the SMKI Service: Question 3 of the consultation sought views on the proposed approach and text for the SEC with respect to provision of the SMKI Service.

Government Consideration of Issue

44 A large majority of those who responded to this question broadly supported the proposals for the SMKI Service. This included Suppliers, Network Operators and communications technology firms. A number of respondents also made additional detailed comments and suggestions.

45 A number of comments were made about managing demand for Certificate Signing Requests. One Large Supplier did not agree with the proposals arguing that events outside of a user's control should be considered. It also considered that publishing information on user's who had breached the requirement that actual demand for device certificate signing requests be within 110% of the user's forecast for a given month, could be commercially sensitive.

46 We do not agree that reports on over- or under-forecasting should not be published as a default position. As set out in the SEC 2 response document, such reports assist in encouraging DCC users to be as accurate as possible in forecasting usage. However, we will align publication of the report on over- or under-reporting with the process for User Gateway Services, allowing the SEC Panel to determine whether it is reasonable to report a user's over- or under-forecasting. Again this is consistent with the SEC 2 response where we acknowledged that forecasting error may be due to circumstances beyond the DCC user's control. We will also align the forecasting window for Certificate signing requests with that for User Gateway Services at 8 months' notice.

47 Some respondents also questioned the frequency of forecasting for Certificate requests and noted the potential commercial implications for users stemming from the DCC's demand forecasting. Another Large Supplier asked if there was a limit to the number of batches that a user could submit in one day.

48 We consider that demand forecasting is appropriate and necessary to enable the DCC to efficiently procure and build adequate capacity to serve users. Without a reasonable understanding of its service users expected requirements there is a risk that it would either under-procure service capability (to the detriment of service users and their customers, and potentially leaving the DCC in breach of its obligations) or over-procure and therefore potentially incurring unnecessary cost. We are mindful however of the risk of 'gold plating' a service if, for example, the DCC procured sufficient capacity to meet all monthly requests within a daily window. Following further dialogue with the DCC we do not believe it is necessary for the DCC to have daily forecasts for its SMKI services so that it avoids over-procurement of capacity, although we expect the DCC to keep the issue under review so that it continues to meet its licence obligations to operate an efficient, economical, coordinated and secure service and to allocate capacity in a non-discriminatory way. Should the DCC receive demand above its expected capacity, it could set out its approach to allocating that capacity without undue discrimination through a modification to the SEC. We also note that the DCC invited SEC parties to a series of SMKI Design Forums in April, May and June, providing an opportunity for industry to

input to the development of SMKI documents and processes with the DCC and SMKI service providers.

49 One Supplier suggested the target should be 115% rather than 110%. We don't consider that there is a significant practical difference between a 115% and 110% level and recognise that the most appropriate level may change over time. In the absence of a compelling rationale to change at this time (and noting that most respondents did not disagree with the proposed approach) we have concluded that it should remain consistent with User Gateway Services at 110%. However, we do recognise that determining the correct level is not an exact science and so it is important to note that if in future SEC Parties consider the target should be different, then they will be able to raise modifications under the SEC modification procedures.

Comments on legal drafting

50 There were a number of comments on the detail of the legal drafting:

- Some responses asked for clarity on the role of parties such as Registration Data Providers (RDPs) and meter operators with respect to the use of SMKI services. We note that there are no current obligations on RDPs, however it will be for the DCC to define the security requirements with respect to the RDP interface.
- A number of responses asked for clarity on charges for SMKI Services (including additional assurance requirements covered in Section 2.4 below) and whether they would be explicit charges or covered by the DCC's fixed costs. As set out in the SEC 3 Part A response document, in general SMKI costs will be incorporated within the DCC's fixed costs. The PMA will be able to consider whether there should be an explicit charge for an SMKI audit if a user's action has necessitated such an audit. If the PMA considers that this is appropriate it will raise the appropriate modification to the SEC and SEC Parties will have an opportunity to comment on the proposal then.
- A Supplier suggested that, under section H14.30 (completion of SMKI and Repository Entry Process Tests), the DCC should notify the Panel of the outcome as well as the relevant Party. We agree and have updated the text accordingly.
- A Supplier argued that section L8.1 should state explicitly that organisation and Device Certificates must be inserted into the repository by the DCC. We consider that the Certificate Policy drafting already makes this clear (see section 2 of the Certificate Policies).
- A Supplier noted that the DCC had no penalties if it fails to hit the performance measures in L8.1 / L8.6. We can confirm that, in line with the arrangements for other DCC services, the SMKI service will operate under a service credit regime. This means that any failure to provide services agreed under the contract will lead to the DCC being compensated through service credits, which in turn will be passed back to users in the form of lower service charges.
- Another Supplier expressed concern that the code performance measures in L8.6 'do not state a maximum timescale in which the final 1% of issues has to be dealt with'. However, it is important to note that these are reporting measures only: the DCC remains under an obligation in both the SEC and licence to provide services.
- A Supplier suggested that under L4.6(b)(ii), the ability of the Secretary of State to specify a date by which drafts of the SMKI Interface Design Specification and the

SMKI Code of Connection should be made available, should be limited such that it could only be earlier than the date set out in (i) of the same paragraph. We consider such a limitation would impose an unnecessary restriction in the event of unforeseen developments arising, and therefore have made it clear that the documents must be produced six months prior to the start of Systems Integration Testing or such later date as may be specified by the Secretary of State to align with similar provisions elsewhere in the SEC.

- The DCC suggested that service availability should be aligned with the allowed down time for maintenance under Section H8.3 (i.e. moving from 07.00-19.00 to 08.00-20.00). We agree and have modified the text accordingly.
- There were some comments regarding timescales and visibility of documents with one Supplier asking for a timeline showing what was happening by way of artefact release against industry published milestones and another commenting that it was important for parties to see key documents at the earliest opportunity and throughout their development lifecycle. We agree with the need for parties to see documents at key points in their development lifecycle. The DCC is holding SMKI Design Forums in April, May and June to involve stakeholders in the development of key documentation and processes prior to formal consultation. There is an obligation on the DCC to produce such documents through consultation with users.
- There were also some detailed comments on the general approach. A Supplier and a Network Operator asked if access to an organisation's Device Certificates should be restricted to that organisation only. It should be noted that all Parties (whether DCC users or not) have access to any public Certificate over the SMKI Repository – the drafting in L5 states that any Party may access the SMKI Repository to obtain Certificates to the extent that they require such access for purposes associated with the SEC. Eligibility requirements described in L3 apply when subscribing for a Certificate in the first place.
- A joint Supplier / Network Operator response asked about the arrangements for restoring SMKI services in the event of failure. Business continuity measures, including arrangements relating to SMKI losses of service, will be set out by the DCC as part of its business continuity work. The SMKI Recovery Procedures will explain the Recovery Certificate from compromise situations.
- A Supplier argued that response times from the Repository should be measured in milliseconds rather than the 30 second target set out in the consultation. We agree that 30 seconds is too long and will change the response time to 3 seconds to make it consistent with those User Gateway Service requests that demand similar levels of system resource from the DCC.
- A Network Operator asked for clarity on whether communication with the SMKI Service and Repository would take place over the existing registration interface or DCC user gateway. We note that it will be for the DCC to design the interface requirements for the SMKI Service and the Repository and users will have an opportunity to comment.

Summary of Government Conclusion

On Question 3: The majority of respondents agreed with our proposed SEC drafting with

respect to the SMKI Services. We have incorporated some updates to the drafting comments as a result of the comment received.

Summary of Changes to the Consultation Legal Drafting

SEC Section	Content
L8: SMKI Performance Standards and Demand Management	• Minor change to the processing times for Batched Certificate Signing requests. • Change to target response time for the SMKI Repository from 30 seconds to 3 seconds. • Alignment with proposed 8 month forecasting period for User Gateway services. • Alignment with the ability of the Panel, as set out for User Gateway services in the SEC 2 response, to choose not to publish the detail of a subscriber's over- or under-forecast if the Panel believes that such under- or over-forecasting was reasonable in the circumstances.
L4: SMKI Service Interfaces	• Here we have made a change to make it clear that the relevant interface and documents should be made available to Subscribers and also to Parties for the purposes of undertaking SMKI Entry Process Testing. We have confirmed updated the drafting so that the relevant documents should be made available 6 months prior to the commencement of SIT.

3.4 Certificate Policies

Summary of Issue under Consideration

The SEC 3 consultation set out requirements for the SMKI Service to contain the following two key elements:

- a Device SMKI to support the issuing of Device Certificates; and
- an Organisation SMKI to support the issuing of Certificates to organisations including the DCC, Suppliers, Network Operators and other SEC Parties.

Two Certificate Policies set out further details of each part of SMKI:

- a Device Certificate Policy; and
- an Organisation Certificate Policy.

The DCC will be required to provide an SMKI Service which issues Certificates in accordance with the Device Certificate Policy and the Organisation Certificate Policy. The Certificate Policies will form part of the SMKI SEC Document Set and so will be subject to oversight by the SMKI PMA, and will be stored on the SMKI Repository (see Section 3.5).

In line with standard PKI best practice, the DCC will be required to produce:

- a Certification Practice Statement, outlining how the SMKI Service will meet the requirements set out in the relevant Certificate Policies;
- Registration Authority Policies and Procedures (RAPP), providing more detail on the specific processes and procedures for SMKI participants to follow, for example, on how to prove their authenticity and to request Certificates.

There were two questions in this area:

Device Certificate Policy: Question 5 sought views on the proposed approach and text for the SEC with respect to the Device Certificate Policy.

Organisation Certificate Policy: Question 6 sought views on the proposed approach and text for the SEC with respect to the Organisation Certificate Policy**.**

Government Consideration of Issue

51 In total twelve stakeholders responded to Question 5. Of those who responded, a large majority agreed with the proposed approach and SEC legal drafting in relation to the Device Certificate Policy. Of those that were supportive, the majority of comments referred to specific legal drafting suggestions or queries in relation to the policy.

52 One stakeholder questioned whether additional drafting was required to cover termination of the Certification Authorities and Registration Authorities. We do not agree that additional drafting is required to define the termination of Certificate Authorities and the Registration Authority, within the life of the contract between the DCC and its SMKI Service Provider, which we expect to follow industry best practice. However, we do agree that the DCC should ensure a seamless handover of the SMKI service, including the root and Recovery Certificates, if and when a new contract for the SMKI service is let.

53 One stakeholder asked how, in the absence of Certificate revocation, a party would know which Device Certificate was the latest one and whether the DCC will maintain a list of no longer valid Device Certificates. There will be various mechanisms which can be used. The Supplier has knowledge of what Certificates are on each of their devices and where they are not the Supplier, the SMKI Repository (and any locally held copies thereof) will have the latest public Certificates for all devices, and these should be used to validate that the communication is from legitimate devices. We do not propose to be prescriptive in the Certificate Policies as to which method should be used.

54 Two Large Suppliers noted that further detail will follow in the Registration Authority Policies and Procedures (RAPP)[9] and so early visibility was important to maintaining the timetable. We agree that delivery of the RAPP is critical and the DCC is holding SMKI Design Forums that will specifically address the content of the RAPP prior to formal consultation with stakeholders in the summer. We have updated the timing in relation to the RAPP and the Certification Practice Statements to provide certainty and ensure they are available on time.

55 One Large Supplier questioned the approach to the Device Certificate Policy, in particular querying why meters have small Certificates processed in large data centres while SEC parties have large Certificates processed on meters. Both Certificates contain the minimum number of attributes required to carry the information necessary and as such are only marginally different in size.

56 In total thirteen stakeholders responded to Question 6. Of those who responded, a large majority of stakeholders agreed with the proposed approach and SEC legal drafting in relation to the Organisation Certificate Policy.

57 A Large Supplier questioned the proposed lifetime of an Organisation Certificate, suggesting three years may not be suitable. We have considered further the issue of Certificate lifetime and have decided to make a change to the Organisation Certificate Policy to extend the maximum lifetimes to the following:

[9] A subsidiary document to the SEC, more information on subsidiary documents is set out in section 2.6

- Organisation Certificate: 10 years
- Issuing OCA Certificate: 25 years
- Root OCA Certificate: 50 years

58 The primary objective of the rationale for changing Certificate lifetimes is to balance the control of security risk and cost, together with reduced complexity, administrative overhead, and operational risk. The extension of Certificate lifetimes for OCAs reduces the time between replacement of end entity Certificates on smart metering devices. DCC users have the flexibility to replace Certificates within these maximum periods in line with their risk assessment and business needs.

59 One Large Supplier argued that there were significant gaps in the text of the Certificate Policies, which it believed made it too early to formally transfer responsibilities to the PMA at the time that SEC 3 takes effect. They suggested the appointment of the PMA therefore be deferred and that a shadow PMA be established to work alongside the DECC team developing the Certificate Policies. However following consultation on the documents in SEC 3, these Polices have now been substantially completed and are ready to be incorporated into the SEC. Therefore there is no need to establish a 'shadow PMA' in order to address the respondent's concern. Once the legal drafting is effective, the SMKI PMA will take on its duty of reviewing the Certificate Policies and potentially raising modifications. We recognise that further minor changes may be required to the Certificate Policies as a part of future iterations of the SEC. However this should not delay the important formal review process that will be undertaken by the SMKI PMA, which will be subject to the SEC modification process, which provides opportunity for SEC Parties to comment.

60 One stakeholder suggested that the Authority Revocation List (ARL) validity period should be twelve months rather than thirteen. We agree with this proposal and will reflect this change in the legal drafting.

61 Other stakeholders asked questions around topics which are included in the SEC 4 consultation, including the approach to operating SMETS meters outside the DCC.

Summary of Government Conclusion

On Question 5: The majority of respondents agreed with our proposed SEC drafting with respect to the Device Certificate Policy. We have incorporated some updates to the drafting comments as a result of the comment received.

On Question 6: The majority of respondents agreed with our proposed SEC drafting with respect to the Organisation Certificate Policy. We have incorporated some updates to the drafting comments as a result of the comment received. This included agreeing with the proposal to change the ARL Validity Period to 12 months (from 13 months) and changing the Organisation Certificate lifetimes.

Summary of Changes to the Consultation Legal Drafting

SEC Section	Content
Appendix A: Device Certificate	• A number of minor updates have been made to the drafting, including updated reference to the relevant SEC provisions.

Policy	

Appendix B: Organisation Certificate Policy	• A number of minor updates have been made to the drafting, including updated reference to the relevant SEC provisions.
	• In 6.3.2 the Certificate validity periods have been extended to:
	  • in the case of an Organisation Certificate, 10 years;
	  • in the case of an Issuing OCA Certificate, 25 years; and
	  • in the case of a Root OCA Certificate, 50 years.
	• In 4.9.7 the period where the ARL shall remain valid has been changed from 13 months to 12 months.

L9: The SMKI Document Set	• The timing of the development of the RAPP has been updated to 6 months prior to Systems Integration Testing or such date specified by the Secretary of State. • The timing of the Certification Practice Statement has been updated to be 3 months in advance of SIT or such later date determined by PMA.

3.5 Providing the SMKI Repository

Summary of Issue under Consideration

During the day to day operation of the SMKI, Subscribers will need to access Certificates and a number of related SMKI documents such as Certificate Policies, and the Registration Authority Policies and Procedures and the Compliance Policy.

The DCC (as DSP) will therefore be required to provide a SMKI Repository – which is essentially a directory and library function for SMKI Certificates, Certificate Revocation Lists (CRLs) and key related SMKI documents. The DSP contract already includes requirements to provide this service.

There was one question on this topic:

SMKI Repository: Question 9 sought views on the proposed approach and text for the SEC with respect to the SMKI Repository.

Government Consideration of Issue

62 In total fourteen stakeholders responded to this question. Of those who responded, a majority of stakeholders agreed with the proposed approach to the SMKI Repository and associated SEC legal text.

63 A number of stakeholders, including Large Suppliers and energy networks, highlighted the importance of early visibility of the SMKI Repository Interface Specifications and Code of Connection. We agree that delivery of the SMKI Repository Interface Design Specifications and Code of Connection[10] is important and the DCC has included these topics for discussion in the SMKI Design Forums being held in April, May and June 2014, prior to formal consultation with SEC stakeholders in the summer. We have updated the timing in relation to these documents to ensure they are available on time.

64 One Large Supplier commented that they believed the 30 second response time was too long. As set out in section 3.3 we agree that this response time would be too long and will change the timing to 3 seconds.

[10] Both are subsidiary document to the SEC, more information on subsidiary documents is set out in section 2.6

65 One Large Supplier questioned the arrangements when the Repository is unavailable. Business continuity measures, including arrangements relating to SMKI Repository loss of service, will be set out by the DCC as part of its business continuity work.

66 A number of stakeholders flagged specific drafting comments, for example that we should make it clear that the Code Administrator can lodge documents on behalf of the SMKI PMA.

Summary of Government Conclusion

On Question 9: The majority of respondents agreed with our proposed SEC drafting with respect to the SMKI Repository. We have incorporated some updates to the drafting comments as a result of the comment received.

Summary of Changes to the Consultation Legal Drafting

SEC Section	Content
L5: The SMKI Repository Service	• Minor changes made to clarify the text. • Subscriber Agreement and Relying Party Agreement references removed - to be covered in SEC 4.
L6: The SMKI Repository Interface	• Clarification that the Repository Interface is to be used for both the sending and receiving of communications in accordance with the SMKI Repository Code of Connection and also for the purpose of SMKI Entry Process Testing. • Timing updated so that the Repository Interface documents will be required 6 months prior to the start of SIT.

3.6 SMKI Recovery Procedures

Summary of Issue under Consideration

All DCC users are required to conduct a risk assessment[11] (in line with the standard set out in ISO 27005). These risk assessments should enable DCC users to calibrate and mitigate the security risks to their private cryptographic keys based on their individual circumstances. The SEC 3 consultation sought views on the proposed obligations for the storage and operation of SMKI private cryptographic keys (see section 3.9 below). The mitigations from the risk assessments, and the security controls proposed for private cryptographic keys, should enable SMKI participants to deal with any individual, small scale SMKI security-related incidents that may occur. However, in the exceptional event that large numbers of private keys become lost, stolen, corrupt or otherwise become unreliable, then a SMKI Recovery Procedures will provide a means of returning the SMKI operations to a secure state.

There was one question on this:

Recovery Procedures: Question 10 sought views on our proposed approach and text for the SEC with respect to SMKI Recovery Processes.

Government Consideration of Issue

[11] Section G5.1 of the SEC

67 A large majority of respondents agreed with the proposal, with many agreeing in principle and requesting further detail, particularly in relation to responsibilities of each SEC Party and procedures supporting the Recovery Certificate process. Other points raised by respondents included clarifications as to:

- whether the information that is confidential to the DCC and SMKI PMA can be shared with the SEC Panel; and
- whether each SMKI participant should define its own Recovery Certificate process or whether this will be defined by the DCC.

68 A small minority of respondents did not agree with the proposal considering that the information provided at this stage was insufficient for them to assess the adequacy of the proposal, while others thought that the Recovery Certificate should be established under a different Root Authority.

69 The SMKI Recovery Procedures will explain the processes to recover from compromise situations whether or not these involve the use of a Recovery Key. These procedures will link with the wider incident management and business continuity measures, including arrangements relating to SMKI losses of service, which will be set out by the DCC as part of its business continuity work. The DCC is holding SMKI Design Forums with stakeholders that will specifically address the content of the Recovery Procedures prior to formal consultation with stakeholders in the summer.

Summary of Government Conclusion

The SMKI Recovery Procedure will be developed by the DCC in consultation with users, the PMA and anyone else that the DCC considers appropriate before the DCC submits it to the Secretary of State for designation six months in advance of System Integration Testing (or such other date determined by the Secretary of State). Once the Recovery Procedure forms part of the SEC, the PMA will review it and propose any modifications it considers appropriate.

The SMKI Recovery Procedure will explain the responsibilities of all Parties in respect of Recovery Certificate, how Parties will be expected to notify the DCC of compromise to their Organisation Private Key and what Parties need to do once they notify the DCC of compromise. The SMKI Recovery Procedure will also cover how any Keys used for the purpose of Recovery Certificate are established and stored and when the Procedure is used, for example where Ofgem appoints a Supplier of Last Resort (SoLR) and an outgoing Supplier is unable or unwilling to update their credentials on the meter. As part of the Recovery Procedure, the DCC will also consider the reimbursement of any reasonable cost Parties may have incurred as a result of supporting and maintaining the Recovery Procedure.

Liability for any costs associated with the use of the SMKI Recovery Procedure as well a mechanism for dealing with any potential disputes regarding the use of the SMKI Recovery Procedure will be subject to consultation in the future.

Summary of Changes to Legal Drafting

SEC Section	Content
L10: Recovery	• L10.1 describes what the Recovery Procedure needs to include. • L10.2 sets out the obligation to comply with the Recovery Procedure.

Procedure	• L10.3 to L10.4 explain the process that the DCC needs to follow when developing the Recovery Procedure.
L1.15: Proceedings of the SMKI PMA	• L1.15 explains the role of the PMA is reviewing the Recovery Procedure.

3.7 SMKI Service and SMKI Repository Testing

Summary of Issue under Consideration

The SMKI Service and the SMKI Repository both need to be tested by the DCC and by DCC users before live Certificates can start to be issued, and for these to be made available in the SMKI Repository. There is a lead time (which will vary between manufacturers) from the point at which live Device and Organisation Certificates will be ordered to support an order for metering equipment, to when that metering equipment will be delivered. Following this, there will be a period (which will vary between Suppliers) when Suppliers will wish to pilot or trial that equipment using a limited quantity of Devices, and undertake their own tests to gain confidence in the security and functionality of the Device before starting a larger scale rollout.

The consultation asked five questions on these areas:

SMKI Repository and Testing (SRT): Question 11 sought views on the proposed approach and text for the SEC in relation to SMKI and Repository Testing (SRT).

Certificate timing: Question 12 sought views on when organisations might first need to obtain live Device and Organisation Certificates to be placed on Devices ordered from manufacturers.

Large Supplier SRT readiness: Question 13 sought views on whether Large Supplier Parties should be obliged under the SEC to be ready to participate in SRT.

Number of Large Suppliers: Question 14 sought views on whether it would be sufficient for only one Large Supplier to complete SMKI and repository testing for the SMKI Service and repository to have been proved.

Alignment of entry processes: Question 15 sought views on whether the SMKI entry processes should be aligned with the User Entry Process Testing in relation to the DCC User Gateway and Self Service Interface.

Government Consideration of Issue

70 In total, 13 stakeholders responded to Question 11. A significant majority were supportive of the proposals outlined in relation to SMKI and Repository testing (SRT).

71 Half of those respondents, including a number of Suppliers, who were supportive of the proposals, included caveats to the proposed positions in their response. Some respondents mentioned that a one month notice period by the DCC in advance of SRT commencement should be increased, to allow more preparatory time for testing participants. We consider that the SRT Approach Document should be published a minimum of three months prior to Systems Integration Testing to allow sufficient preparatory time for DCC users. In consultation with the DCC, we do not expect that

increasing this minimum requirement would bring disproportionate adverse effects to the deliverability of the outlined requirements.

72 Small Suppliers stressed that, even though there is a small likelihood of them being ready for testing at SRT, they should not be precluded if they wished to participate. We can confirm that the framework presented in the SEC 3 consultation does not preclude Small Suppliers.

73 A Large Supplier requested greater clarity as to what activities users need to undertake to prepare for SRT. Further detail will be provided as part of the SRT Approach Document and SMKI & Repository Test Scenarios Document drafted by the DCC in consultation with Parties.

74 A further view was presented that SMKI and Repository Service Entry Process Testing and SRT should be a homogenous entity, rather than two separate elements, in order to provide greater clarity regarding the SMKI process. SMKI and Repository Entry Process Testing will be required for any new SMKI participant, not just those participating as part of SRT (which occurs during the transitional period); therefore whilst the Entry Process Testing will take place during SRT for some parties, it needs to continue to be available for new parties post SRT. Creating a homogenous entity out of these in the transitional period would not be sufficient therefore as SMKI Entry Process Testing needs to remain in the enduring period for new entrants. It is considered that clarity will be greater if these remain separate processes.

75 In relation to Question 12, a total of 13 stakeholders responded. Some respondents indicated that they require Certificates three months before DCC go-live. Others responded that Certificates were needed five or six months before and two respondents indicated a need for live Certificates around nine months before DCC go-live. Some responses indicated that Certificates were needed 'prior to installation' but did not link this to a specific time of event. We consider that the DCC should make arrangements for live Certificates for the purposes of ordering equipment to be available from the start of Interface Testing.

76 The vast majority of the 13 respondents to Question 13 agreed that all Large Suppliers should be ready to participate in SMKI testing. One Large Supplier pointed out that this is consistent with the wider testing obligations and will minimise the potential for any delay. One Large Supplier suggested that participation should be staggered so as not to slow the pace of testing to the slowest participant. Another Large Supplier pointed out that any selection criteria for participation used by the DCC should be transparent and published. One Large Supplier questioned the value of all Large Suppliers having to be ready at the same time. We consider that all Large Suppliers should be ready to participate in SRT.

77 Of the 14 respondents to Question 14 only three respondents agreed that only one Supplier is sufficient to prove the SMKI service. All other respondents disagreed. There were many variations in views of precisely how many Suppliers will be needed to prove SMKI but a minimum of two Large Suppliers was a widely held view. The various views included some which considered requiring Small Suppliers as well as two Large Suppliers to prove SMKI or requiring Network Operators as well as two Large Suppliers to prove SMKI; whilst others considered having a mix of gas and electricity fuel types and gas and electricity Network Operators to prove the SMKI service and repository. We agree with the comments that a minimum of two Large Suppliers should be required to prove the SMKI Service and Repository. This aligns with the arrangements for the wider

testing arrangements and, as some responses pointed out, enables the SMKI elements of the change of Supplier process to be validated. The legal drafting has been amended accordingly

78 There was unanimous agreement from the 14 respondents to Question 15. The proposed approach was argued to be more efficient and would avoid confusion as compared to alternative approaches. Respondents agreed that aligning SMKI entry processes with User Entry Process Testing in relation to the DCC User Gateway and Self Service Interface would be a logical approach, considering that these processes are fundamentally intertwined.

79 Some respondents raised the point that further detail on how closely User Entry Process Testing and SMKI entry processes will be coupled would be helpful – further information on both will be outlined in the DCC's Test Scenarios Documents. Further clarification was requested in relation to whether demonstration of SMKI results was an entry criterion for commencing Integration Testing. Entry and exit criteria for testing activities will be defined in the relevant Test Approach Documents published and consulted upon by the DCC.

80 In the consultation version of SEC 3 we referred separately to the SMKI and Repository Service Entry Process (L7) and the SMKI and Repository Entry Process Tests. In practice there is no real distinction between these processes and we have amended the legal text accordingly to just refer to SMKI and Repository Entry Process Tests.

81 We intend to consult further on some changes in relation to the SMKI Test Certificates and Test Repository and relevant drafting in H14. This legal text has not been amended and we will revisit our approach as part of the SEC 4 consultation.

Summary of Government Conclusion

On Question 11: Given that a strong majority supports the proposals outlined in the consultation, the Government concludes not to revise the policy positions presented therein.

On question 12: We agree with the respondents and consider that live Certificates should be available from the start of Interface Testing.

On Question 13: We agree with the majority of the respondents and will align SMKI Testing with the wider testing obligations. Large Suppliers will be required to be ready to participate in SRT.

On Question 14: We have considered the points raised in the responses and will align the policy for SMKI testing with the wider testing arrangements for a minimum of two Large Suppliers. We do not consider that there are grounds for going beyond the wider testing arrangements.

On Question 15: Considering the unanimous agreement of those who responded, the Government has concluded that SMKI entry processes and User Entry Process Testing in relation to the DCC User Gateway and Self Service Interface will be aligned.

Summary of Changes to the Consultation Legal Drafting

SEC Section	Content
L7: SMKI and Repository	• Section L7 has been amended throughout to refer to "SMKI and Repository Entry Process Tests", while losing the concept of "SMKI and Repository Service Entry

Service Entry Process	Process". • L7 has been amended as it is not considered that there needs to be a role for SECAS in relation to SMKI and Repository Entry Process Testing; Paragraphs L7.9-10 have been deleted as the SMKI and Repository Entry Process Tests dispute mechanism is covered under H14.30.
T5: SMKI and Repository Testing	• The SRT Objective has been amended to not include the communications hub selected pursuant to Section T1, as this requirement would not be of relevance for proving the SMKI Service. • Further changes have been made to this Section T5) similar to equivalent text in Section T3. • Due to security reasons, T5.5 has been amended to require the DCC to provide progress reports to the Secretary of State, the Authority, the Panel and the Parties rather than these being published on the SEC Website. • Following largely positive consultation responses, a new paragraph has been added (T5.12) that specifies mandatory readiness to participate in SRT for all Large Suppliers; • Square brackets have been deleted in T5.15, concluding that at least 2 Large Suppliers who are not Affiliates of one another must complete SRT in order to prove SMKI. • Changes have been made to the timing of the SRT Approach Document, which now needs to be published at least 3 months in advance of SIT. • As required in Section T3, paragraphs have been added in T5 to require the DCC to provide the Panel with a SRT exit report.

3.8 Using the SMKI Service

Summary of Issue under Consideration

The SEC 3 consultation included proposals in relation to opted out non-domestic use of the SMKI and the liabilities, warranties and indemnities that will be associated with the use of the SMKI.

There were two questions in this area:

Parties Using SMKI Service: Question 7 sought views on the proposed approach for parties using the SMKI service, including by Opted Out Non-Domestic Suppliers.

Liabilities, Warranties and Indemnities: Question 8 sought views on the proposed approach for the SEC with respect to Liabilities, Warranties and Indemnities.

Government Consideration of Issue

82 The majority of respondents agreed with our proposed approach to require the use of Device Certificates by all suppliers, however some requested further clarity on detailed implementation of this solution. Some of those who agreed offered conflicting views as to whether installers should not be able to sign up to SMKI and queried how the charging mechanism will work, with one suggesting that non-DCC users that are SMKI service users should be subject to charges for that service.

83 A small number of respondents requested further clarity on the overall approach to opting in and out of the DCC before they were able to offer views on whether the proposed approach was appropriate. Two respondents requested continued industry engagement as the solution for opting in and out of the DCC is developed.

84 A small minority of respondents disagreed with the proposal. One respondent thought that limited technical capabilities of non-DCC using suppliers was likely to lead to

replacement of equipment on churn, whether in or out of DCC, and therefore mandating the use of SMKI by opted out suppliers was not justified.

85 In total thirteen stakeholders responded to question 8. Of those who responded, a large majority of stakeholders agreed with the proposed positions so far, subject to further information and the associated legal text being provided in SEC 4.

86 Large suppliers raised a number of questions and comments on the current approach including:

- the importance of making clear the detail of DCC acting in different roles;
- consideration of how non domestic opted out suppliers will be captured by these arrangements;
- understanding how liabilities are passed on at change of supplier;
- understanding the flow of liabilities from the SMKI Service Provider contract; and
- questions on any indemnities in relation to confidentiality.

Summary of Government Conclusion

Question 7: In the non-domestic market, our policy is that Suppliers should be able to opt in or out of the use of DCC services. There are a number of cases where specific rules governing change of Supplier might apply or may be needed. These are when:

- a meter is installed, and is opted out at installation;
- a meter is installed and is opted out at installation. It then transfers to a Supplier that wishes to opt the meter in; or
- a meter is installed and is opted in at installation. It then transfers to a Supplier that wishes to opt the meter out.

We are considering the implications of the processes for the operation of the opt-out and are discussing with industry how the opt-out will operate in a range of circumstances. In light of those discussions and stakeholders' responses, we continue to develop our approach to the opt-out, including any associated SMKI arrangements. We will consult further on the use of SMKI and our approach to non-domestic Suppliers.

Question 8: Further information on liabilities warranties and indemnities including responses to Question 8 will be part of SEC 4.

3.9 Other Security Requirements

Summary of Issue under Consideration

Obligations already placed on the DCC require that the operations that control the supply of energy to the premise are located in the UK. Similar arrangements have been considered for discrete functions of User Systems that control the supply of energy.

Security arrangements in relation to the storage and operation of SMKI cryptographic material have also been proposed to be in accordance with each Party's risk assessment such that they are proportionate to the risk which will differ across SEC parties.

While we expect that the risk assessments of larger Suppliers will lead to the use of FIPS

140-2 Level 3 cryptographic modules to secure this material, such as that we propose the DCC is obliged to use, we recognise that the risk assessments of other users may result in alternative forms of secure storage.

There were two questions in this area:

Location of System Controls: Question 16 sought views on the proposed approach and text for the SEC with respect to the Location of System Controls.

Storing Cryptographic Material: Question 17 sought views on the proposed approach and text for the SEC with respect to the Obligations for Cryptographic Material.

Government Consideration of Issue

87 Of the respondents expressing a view on Question 16, a large majority agreed with the proposals put forward on requiring system controls to be located within the UK, with only one respondent disagreeing with the proposals. Supportive opinions were expressed by respondents from across different industries and sizes of organisation.

88 A small minority of respondents commented that it would be helpful if the boundaries of the systems to which these obligations apply were more tightly defined. The SEC 2 Consultation Response provided an updated definition of the User System which we consider should now provide the necessary clarity in this area.

89 The obligation to locate certain systems within the United Kingdom will currently only impact on users operating as energy Suppliers, who we have worked closely with in developing these requirements and from whom we have received broad agreement on these proposals. Given the rights and capabilities of users in the scope of this obligation we consider that a definitive obligation in this area is required to enable effective protection of national infrastructure. It has also been recognised that this obligation may prohibit some potential cost savings being realised, however on balance the benefits are considered to outweigh this.

90 All respondents who expressed a view on Question 17 were in agreement with the proposals. Supportive opinions were expressed by respondents from across different industries and sizes of organisation.

91 Some energy Suppliers pointed out that the expectation expressed in the consultation document, that larger energy Suppliers would use FIPS 140-2 Level 3 cryptographic modules was not codified in the obligations, and that without this some Suppliers may not choose to do this. Given the different security risks associated with users of different sizes and with different rights and capabilities under the SEC, we consider it appropriate users determine through their risk assessment the nature of the control used to protect cryptographic key material. The proportionality of the control will then be considered through the user security assurance arrangements due to be consulted on with Stage 4 of the SEC.

Summary of Government Conclusion

Question 16 and 17: Given the strong support for the current position expressed in the responses we will implement the proposed legal text when section G of the SEC is brought into effect.

4. Supplier Nominated Agents

Summary of Issue under Consideration

Questions 18, 19 and 20 sought views on the most appropriate approach to enabling Meter Operators (MOPs) and Meter Asset Managers (MAMs)[12] to access to DCC Services directly taking into account development of the overall security and technical architecture. Three options were identified and stakeholders' views sought on these or on any alternatives.

Government Consideration of Issue

92 Most respondents were in favour of MOPs/ MAMs being able to access some limited DCC services directly with a variety of views expressed about the most appropriate way that such access should be facilitated. However, four Large Suppliers and a Network Operator did not agree. They expressed concern about the potential impact on provision of DCC services generally, about risk and arguments that the commercial relationships with MOPs/MAMs should provide the mechanism for access to DCC services. Additionally questions were raised about the participation of MOPs/MAMs in the governance arrangements of the SEC.

93 We have concluded that – in line with the position set out for the first stage of the SEC – MOPs/MAMs should be able to access some limited DCC services directly, for instance to assess WAN availability, notify Devices to the Smart Metering Inventory and also activity to procure SMKI Certificates. When undertaking such activities it is recognised that at the point at which they are undertaken, such activities are not attributable to an SNA acting on behalf of a particular Supplier to the extent that a MOP or MAM is providing services to a number of Suppliers. Being able to access DCC services 'on their own account' will enable them to provide services to Suppliers for the installation and management of smart metering that are efficient and effective. It would provide the ability to respond to different business approaches, including activity before it is attributable to an individual Supplier, and to support the business models of smaller Suppliers, but also for larger Suppliers 'out of area' roll-out activities.

94 In order to access DCC services a user must adhere to the security model (including SMKI) and will have to use the DCC User Gateway. Sharing the appropriate credentials between a Supplier and the MOP/MAM acting on its behalf would be cumbersome, impractical and in some cases not permitted, potentially constraining MOP/MAM activity. For this reason the Government has decided that, for all the services it is allowed to access, a MOP/MAM should be able to become a SEC Party, acceding in the "Other" SEC Party Category and able to become users in the User Role of Supplier Nominated Agent (SNA). Subject to completion of necessary testing and compliance with relevant security, credit cover and charging requirements.

95 As an SNA a MOP/MAM would be able to access DCC services over the user gateway when not acting as an agent of a single / specific Supplier for the following service requests: a) WAN matrix information; b) inventory lookup; and c) Read Device Firmware.

[12] In electricity, Meter Asset Providers and Meter Operators are defined as separate officially recognised entities. In gas there is no separately defined Meter Asset Provider role and the only recognised party for communication is the Meter Asset Manager. This is because historically the two roles were undertaken by the same party, although today the two can be separate entities.

These services are also available to "Other Users". As an SNA a MOP/MAM will also be able to access the following service requests including: d) Read Device Configuration; e) Read Event or Security Log; f) Read Supply Status; and g) Read Firmware Version. Such access would only be provided subject to the DCC verifying that the SNA was the appointed MOP/MAM for the smart metering system in question, with access to installed meters limited to those for which it has been identified as the MOP or MAM in the registration system

96 For SNA activities the Supplier would be responsible for ensuring that when an agent accesses 'diagnostic Services' (those that relate to an enrolled smart metering system for which the Supplier is responsible, which is services d-g identified above), the agent only accesses them for the purpose of providing services to that Supplier that are required to support its licensed supply activities.

97 Some Large Suppliers were concerned about governance issues arising from the approach outlined above. As a SEC Party a MOP/MAM will be able to take part in the governance of the SEC in the same way that any "other user" can. They will be able to vote for Panel and Change Board members, as well as propose and comment on modifications to the SEC. However, these are rights accorded to any Party in the Other User Party Category, and as the SEC does not preclude MOP/MAM accession it is not considered necessary to change the existing governance arrangements.

98 Having considered the arguments set out by respondents we continue to consider that there are benefits to MOPs/MAMs being able to access some services directly from the DCC. This will enable them to provide a range of services to suppliers and to cater for different business models in a flexible and efficient way. It will support installation and management activities enabling these to be carried out efficiently and effectively without having to route service requests to suppliers. The approach set out will facilitate this access, but that is not to say that suppliers and MOPs/MAMs must use them, and it does not preclude other approaches based on commercial arrangements to access services or to restrict the services a MOP/MAM accesses.

Summary of Government Conclusion

MOPs/MAMs can become SEC Parties and also become DCC users in the new user role of SNA to obtain DCC services. This will allow MOPs/MAMs, having completed the necessary testing and entry processes, to access information from DCC in their own right with appropriate controls from Suppliers where MOPs/MAMs are acting as SNAs to access 'diagnostic services'. This approach facilitates MOP/MAM activity in this area if they so wish, there is nothing to prevent the Supplier and its MOP/MAM coming to alternative commercial arrangements.

The legal drafting for this approach was set out in the SEC 3 consultation legal drafting and will be confirmed and finalised in the SEC 4 consultation version.

5. DCC Testing

5.1 Testing Phases

Summary of Issue under Consideration

The testing that the DCC and RDPs will have to undertake and the tests that those wishing to use DCC services must complete are detailed in the SEC. The policy behind the testing regime was concluded upon on 2nd December 2013, with the SEC Stage 3 consultation detailing proposed legal drafting as part of a new Section T. This section reflects the requirements and obligations on various parties for System Integration Testing (SIT), Interface Testing, and End-to-End Testing, together with the procedure by which the DCC is to develop User Entry Process Common Test Scenarios[13].

Section H of the SEC 3 legal drafting has been amended, principally through the inclusion of a new part H14 'Testing Services'. This sets out the testing services to be made available by the DCC beyond the transitional phase, including the User Entry Process Tests that prospective users will be required to undertake (pursuant to H1), and a process to support resolution of issues that arise during testing (covered in section 4.2).

The consultation asked three questions on these areas:

Test Phasing: Question 21 sought views on the proposed text for the SEC with respect to Test Phasing, and whether it was consistent with our previous decisions on testing arrangements[14].

Enduring Testing: Question 22 sought views on whether the term 'Enduring Testing' should be used to encompass both the End-to-End and Enduring Test stages.

Projected Operational Service Levels: Question 23 sought views on the proposed approach to include the Projected Operational Service Levels within the SEC.

Additional comments were also received in relation to other SEC 3 testing content including charging and appeals for testing during transition.

Government Consideration of Issue

Proposed legal text on Test Phasing

99 There were 17 responses to Question 21 of which 15 agreed with the proposed legal drafting. Respondents who supported the legal text comprised Large and Small Suppliers, Network Operators, RDPs and communications/technology companies. Several of these respondents also made some suggestions as to how the legal text could be refined. Many of these suggestions have been taken into account, as discussed below, and are reflected in the revised finalised legal drafting.

[13] SEC Parties must complete User Entry Process Testing that is relevant to their DCC 'role' (e.g. Supplier, Network Operator, Other User) before they can take services from the DCC. This is done by testing against a set of Common Test Scenarios (CTS) that are applicable to each DCC User role, and which set out scenarios for testing the use of both the relevant DCC User Gateway Commands, and the Self-Service Interface.

[14] Smart Metering system and equipment testing: consultation response, 2 December 2013 https://www.gov.uk/government/consultations/smart-metering-system-and-equipment-testing

100 Several respondents sought clarity on the timings of each testing phase in response to this question. In light of this, we have included the diagram below setting out how the different test phases align. SEC 3 drafting already allowed for overlapping of certain testing phases. However as a result of the SEC 3 consultation responses and the re-introduction of the End-to-End Testing phase (discussed below), this drafting has been further clarified and this is reflected in the diagram.

101 Further, since the SEC 3 Consultation was released, the DCC has conducted a consultation with SEC Parties on Changes to the DCC Integrated Solution Delivery Plan[15,16], which resulted in revised milestones for the implementation of testing, with an accelerated delivery schedule which is partially facilitated by overlapping of testing phases. The diagram below shows how testing phases may overlap, subject to approvals.

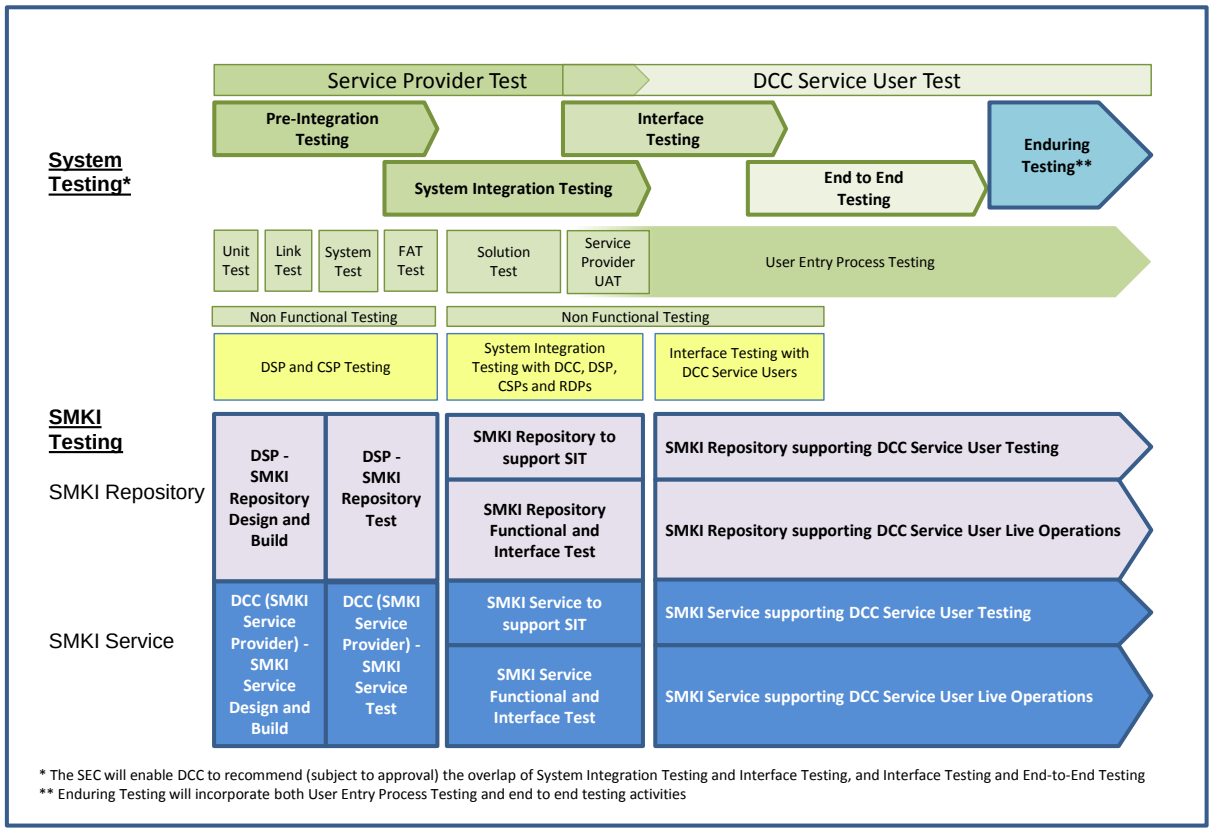

Figure 1 – Flow chart showing the different phases of Testing

102 A query was raised as to whether Network Operators would be mandated to take part in Interface Testing. Electricity and Gas Network Operators are expected to support live operations and installation of smart meters from Autumn 2015. In addition, Electricity Network Operators are expected to be DCC users from this time and receive alarms and alerts. However, at this time we do not consider there to be a sufficient case for them to be mandated to commence User Entry Process Tests at the start of Interface Testing. We may reconsider whether to extend the mandate to include Electricity Network Operators at a later stage, if it is considered necessary to ensure that our expectations

[15] Consultation on Changes to the DCC Integrated Solution Delivery Plan dated 3 April 2014.

[16] DCC Conclusion on Consultation on Changes to the DCC Integrated Solution Delivery Plan dated 8 May 2014.

regarding technical and operational readiness are met. The specific power for the Secretary of State to direct Network Operators to be ready to commence User Entry Process Tests will therefore be retained in the SEC.

103 Large Supplier Parties will continue to be required under the SEC to commence User Entry Process Tests as soon as reasonably practicable during Interface Testing. We recognise that for some SEC Parties their classification as either a Large Supplier Party or Small Supplier Party may change (by virtue of the number of customers they have at any given time), and this may impact on their obligation to be ready to undertake User Entry Process Testing. We would expect that the DCC would set out the point at which a decision is taken regarding whether a Supplier qualifies as a Large Supplier Party in its Interface Test Approach Document and that this decision would be taken by the DCC and that impacted parties would be notified.

Enduring testing

104 Responses to Question 22 were split, with a small majority supporting the retention of a specific End-to-End test stage in the legal drafting. Those respondents who agreed that the End-to-End terminology could be reworded did so on the basis that it would simplify terminology and ultimately achieve the same outcome.

105 The respondents disagreeing with the terminology change from thought the change was confusing and would shift focus from the initial period of testing. Several respondents also suggested that although the process was the same, the nature of the testing was different. The End-to-End Test phase was focused upon getting multiple parties through the testing processes within a fixed period of time in the early stages of live operations; Enduring Testing suggested an on-going and less intense testing period.

106 The majority of respondents supported the retention of the End-to-End test stage. We consider that that the End-to-End Test phase will add impetus to Parties completing testing process and have therefore included this test stage in the legal drafting in Section T of the SEC.

107 As with other testing phases, the DCC will be required to provide a plan for End-to-End Testing, including the manner in which they will support the test activities. This plan, which is required to be published six months before the start of End-to-End Testing, will be produced in consultation with SEC Parties. Those SEC Parties who volunteer to participate in End-to-End Testing will be required to comply with the plan. End-to-End Testing may overlap with Interface Testing, where the DCC has provided a report outlining the benefit and risks of overlapping, which the SEC Panel approves.

108 The End-to-End Test Phase will conclude 12 months after it commences, unless the DCC has made a recommendation to the SEC Panel that the phase should be extended by a further six months, and the SEC Panel agrees.

109 After completion of the End-to-End Test Phase, the DCC will provide testing services under the enduring provisions in Section H14.

Testing of projected operational service levels

110 All respondents bar one to Question 23 supported the proposal to include Projected Operational Service Levels in the SEC to some extent. Comments made in support of the proposal included that:

- it would provide a good level of transparency for users;
- the SEC would provide a clear governance regime; and

- any modifications would undergo an appropriate level of scrutiny.

111 We agree that including a requirement to make these service levels available to all SEC Parties will ensure that the DCC tests its systems to an appropriate level. However, given the complexity of the Projected Operational Service Levels, their regional differences, and the potential need for them to change, we do not consider it appropriate to include these in the main body of the SEC.

112 Instead, we will include an obligation in the SEC to require the DCC to verify that testing against specified "Volume Scenarios" has been achieved, as part of its exit reports for SIT and Interface Testing. Those Volume Scenarios are to be specified in the SIT and Interface Testing Approach Documents, which will be approved by the SEC Panel. We expect those scenarios to reflect the Projected Operational Service Levels referenced in the DCC's Service Provider contracts.

113 The use of the term "Volume Scenarios" is being introduced following discussions with the DCC. This is to avoid any confusion with the 'Service Performance Levels' which are also set out in the SEC, and against which different provisions apply.

Other changes to SEC 3 content

Charging and appeals for testing during transition

114 Respondents also raised concerns over charging for testing. As we have stated previously testing charges will generally be socialised across SEC Parties for both testing services during transition, and certain enduring testing services and facilities.[17] This approach is consistent with the approach to allocation of testing charges in other industry codes, the rationale being that testing is of benefit to all parties and that upfront costs relating to testing could become a barrier to entry for new parties and a disincentive to re-test for existing parties. However, where requested by a SEC Party, the DCC will be able to offer additional consultancy services to support testing participants, for which it will be able to charge if non-SEC Parties, for example meter manufacturers, want to use the testing facilities which can be charged directly to the test participant on a bilateral contracted basis. We are currently considering additional requirements covering the provision of remote access to test laboratories and for Communications Hubs for testing, including any changes which will apply to the provision of these services. We plan to address these as part of the forthcoming SEC 4 consultation.

115 One respondent raised a concern about the way that appeals are managed during testing in transition, suggesting that the Secretary of State would be best to determine all appeals relating to testing. We have considered this concern and still consider Ofgem, as the energy industry regulator, to be the most appropriate body to hear appeals on testing in most instances. However, there may be instances where the Secretary of State considers that they or another person as determined by the Secretary of State are the most appropriate person to hear an appeal on testing during transition, for example, where an issue arises which may affect the critical path for Programme delivery. The proposed legal drafting enabling the Secretary of State to decide when these instances occur will therefore be retained.

Publication of testing information

[17] *Smart Metering System & Equipment Testing – Consultation Response* dated 2 December 2013.

116 SEC 3 consultation text on the proposed process for testing (in both transitional and enduring regimes) included requirements for the DCC to publish information on testing issues and Test Exit and SIT Audit reports on the DCC Website. Some respondents raised concerns about the general publication of such information, noting the sensitivity of the DCC role in applying key security controls that need to be kept confidential. In response to these concerns, we have concluded that the SEC will require information on testing issues and Exit Reports to be provided to relevant categories of testing participants and to Parties respectively with arrangements for information on security risks to be redacted if relevant. This process will provide the relevant information required by stakeholders with an interest in testing while reducing security concerns.

Further changes to reflect operational issues

117 As the DCC has continued to refine its plans for the operational requirements for testing, we have, in consultation with them and industry participants, included further refinements to the text which are summarised below:

- we have included changes to the legal drafting to reflect the regional differences in Communications Hub providers, clarifying that a Communications Hub provider selected for one region may put forward electricity and gas meters for consideration as part of SIT and Interface Testing for another region;
- we have included a requirement for the DCC to consult with SEC Parties and Manufacturers in developing its device selection methodology;
- to provide clarity that the testing provided under Section T is transitional only, we have added a sunset clause in section T7; and
- we have removed references in T3 to Parties liaising with the Code Administrator when undertaking User Entry Process Testing, as they were erroneous references to the Code Administrator's role in User Entry Processes more generally rather than User Entry Process Testing.

118 Finally, there are some further testing matters which will be addressed as part of SEC 4. One relates to the SEC requirement for Large Suppliers to be ready to undertake User Entry Process Tests as part of Interface Testing. Some Large Suppliers have multiple licences and may have multiple SEC Party identities, and a strict reading of the SEC may lead to a view that testing is required for each licenced Party individually. This is something we are examining in more detail as a solution allowing the use of shared services has implications for other parts of the SEC. Further issues on which we intend to consult as part of SEC 4 include provision of remote testing and an amendment to Section K relating to the liability to pay for additional testing consultancy.

Summary of Government Conclusion

On Question 21: we will introduce the legal text as proposed, with a number of amendments made to reflect responses received and to reflect the changes to the DCC's delivery timetable.

On Question 22: the SEC text will be amended to introduce an End-to-End Testing stages, with supporting provisions covering the establishment of an End-to-End Test approach document, and how the End-to-End Test Stage will end.

On Question 23: we will re-define 'Projected Operational Service Levels' in the SEC as 'Volume Scenarios' and require the DCC to verify that testing against the Volume Scenarios

has been achieved, as part of its exit reports for SIT and Interface Testing.

Summary of Changes to the Consultation Legal Drafting

SEC Section	Content
T1: Device Selection Methodology	• The DCC will be required to consult with Parties and Manufacturers prior to finalising the Device Selection Methodology. • Drafting has been clarified to acknowledge that the manufacturer of a Communications Hub selected for one region may provide meters for testing in another region. • We have clarified drafting regarding the DCC's ability to relax selection criteria and to de-select devices, as well as requiring the DCC to include in the Methodology the level of assurance the DCC will need regarding the achievement of Testing Objectives. • We have included a requirement for the to give reasons to manufacturers whose meters were not selected under the device selection methodology.
T2: System Integration Testing	• We have replaced references to "Projected Operational Service Levels" with "Volume Scenarios" and required the DCC to verify this as part of its exit reports. • Altered drafting to require that the DCC must have regard to the most recently published SEC text and also a document containing further technical or procedural supporting requirements published by the Secretary of State, in deriving its approach to SIT. A similar change has been made for T3. • We have amended the process for the DCC in circulating its SIT exit report and auditor's report, including by allowing for a redaction process to remove security risks where relevant. • A requirement for the DCC to explain how the auditor that reports on SIT will be appointed, and that the auditor must be independent of the RDPs as well as the DCC.
T3: Interface testing	• New text allowing the DCC to overlap SIT and Interface Testing, by providing a report for the Secretary of State's approval setting out the benefit and risks of doing so and consulting Parties. • Clarifications to the content of the Interface Testing Approach Document, including a requirement that an exit criteria for Interface Testing will be that two Large Suppliers for each Region and User Role. We have clarified that exit criteria apply on a Region basis and not a Party basis. • As for SIT, we have amended the process for the DCC in circulating its exit report and auditor's report, including by allowing for a redaction process to remove security risks where relevant. • We have removed references to the Code Administrator as they were erroneous references applying to User Entry Processes rather than User Entry Process Testing.
T4: End-to-End Testing	• A new Section T4 has been inserted to detail the process and timing of End-to-End Testing. • The DCC will be required to develop an End-to-End Testing Approach document for approval by the Panel which will be published 6 months in advance of commencement. • Appeal rights have been provided against the Panel's approval of the approach document. • The DCC may recommend that the End-to-End Testing phase be extended by a further 6 months, subject to Panel approval. • The DCC may recommend that End-to-End and Interface Testing overlap, by submitting a report to the Panel on the benefits and risks of overlapping these phases. • Disputes will be resolved in accordance with H14, providing that the Secretary of State may direct that disputes are resolved by the Secretary of State instead of the Authority.
T5: SMKI & Repository	• Various changes have been made to align text with the approach taken for general testing.

Testing	• Changes to Section T5 are set out in Section 3.7 SMKI Service and SMKI Repository Testing
T6: Development of Test Scenarios Documents	• An amendment providing that the Common Test Scenarios document must include any entry requirements prior to execution of UEPTs. • We have clarified the timing for submission of test scenarios documents to the Secretary of State.
T7: Ending of the Application of this Section T	• A new Section T7 has been inserted to set out that Section T will cease to apply on the last to occur of completion of Interface Testing, completion of End-to-End Testing or completion of SMKI and Repository Testing.
H14: Testing Services	• Drafting has been amended to set out a clear list of Testing Services which the DCC must provide. • We have added a dispute right for a Party on the order in which persons are allowed to undertake tests pursuant to Section H14. • New text to require DCC to ensure that UEPTs include the sending of commands to and from devices. • Further amendments as described in Section 5.2 below (Issue Resolution During Testing) and Section 3.9 (SMKI and Repository Testing) above.

5.2 Issue resolution during Testing

Summary of Issue under Consideration

The DCC Service Providers have been contracted to provide an issue resolution process, including the provision of a test management tool to all test participants for use in all phases of testing. This includes SIT, Interface Testing, End-to-End Testing and all enduring testing stages.

A testing issue is any situation where a Party considers that the outcome of a test is not in line with expectations, but may also arise where a Party is prevented from performing the test as expected (e.g. due to a lack of connection or unavailability of environment).

Question 24 sought views on the need for an issue resolution process in testing and whether the proposed process would meet that need.

Question 25 sought views on the proposed text for the SEC with respect to Issue Resolution.

Government Consideration of Issue

119 All 15 respondents to Question 24 agreed in principle that a testing issues resolution process is necessary. Respondents emphasised that an issue resolution process would provide logging, visibility of, and escalation of, testing Issues. It was further noted that testing issues are inevitable and speedy resolution of these is essential.

120 While the majority of respondents agreed in principle with the legal drafting and process proposed, a number of specific comments were provided in responses to Question 25 regarding the issue resolution process set out in the SEC drafting.

121 Several Large Supplier parties disagreed with the proposal that testing issues should be raised with DCC Service Providers in the first instance. It was argued that issues should be raised directly with the DCC, and that a specific contact point or testing steering group should be established to deal with testing issues.

122 Further, two Large Supplier parties suggested that response times for dealing with testing issues ought to be included within the SEC. It was also noted that the DCC Service Providers should not be able to unilaterally determine the priority status and severity of testing issues, but that this should be an agreed position or that there should be clear criteria in the SEC for determining this. We have considered the suggestion to specify criteria by which DCC Service Providers determine the priority status and severity level of testing issues, but on balance we have not adopted this approach. We consider that as testing participants have been given the ability to challenge determinations, specific criteria are not required to be specified in the SEC.

123 A number of those responding raised concerns regarding the proposal to make information on testing issues (especially unresolved testing issues) publicly available via a website as this could cause a security risk. It was proposed instead that the manner in which testing issues had been verified should be made available to SEC Parties by a secure mechanism.

124 We consider these security concerns to be valid, and along with the alterations to the publication of test approach documents set out in Section 5.1 above have amended the legal drafting to reflect this. We also considered that this will achieve the policy aim of giving testing participants information regarding issues which may impact on them, while minimising security risks.

Summary of Government Conclusion

On Question 24: all respondents agreed that there was a need for an issues resolution process. We have incorporated some updates to the proposed legal text as a result of the comments received.

On Question 25: the legal drafting will be amended to ensure that anonymised information on testing issues will be provided to SEC Parties only.

Summary of Changes to the Consultation Legal Drafting

SEC Section	Content
H14.38: General Testing Issue Resolution Process	• We have amended the process for circulation of testing issue resolution determinations, including by limiting publication to categories testing participants, and allowing for a redaction process to remove security risks where relevant. • We have inserted a requirement that Panel decisions on testing issues will have anonymised details of testing participants and manufacturers.
H14.43: Testing Issues	• Where Testing Issues are escalated during transition, we have revised the drafting so that the Panel will liaise with the Secretary of State to determine whether the Panel or the Secretary of State is best placed to make a determination (based on whether the issue relates to enduring SEC content or transitional material).

6. Smart Metering System Requirements

Summary of Issue under Consideration

Several SEC provisions relating to Device testing and certification were proposed to support existing and planned provisions in the Suppliers' and the DCC's licences and the technical specifications.

We proposed SEC drafting to require Suppliers and the DCC to retain evidence that their Devices comply with the relevant technical specifications and to make this evidence available to the SEC Panel and Ofgem when requested to do so. We also proposed drafting to require Suppliers to ensure that Devices are interoperable with the DCC's systems and for the DCC to provide test environments where Suppliers and manufacturers could test this.

Suppliers will be required to ensure that their Devices are configured and that they provide the DCC with access to these Devices such that they can provide the services described in the DCC User Gateway Services Schedule (DUGIS).

Proposals relating to the Certified Product List, including the requirement to recertify devices against the CPA every six years and the rules for firmware management, and the Deployed Product List were also included in the consultation.

There was one question on this topic:

> **Equipment Testing and Configuration:** Question 26 sought views on the proposal legal text in relation to Equipment Testing and configuration of enrolled Smart Metering Systems.

Government Consideration of Issue

125 The majority of respondents were broadly supportive of the proposed SEC drafting. However, a number of respondents suggested amendments with a small number stating that they were not content with the drafting as it was proposed.

126 The main issue raised by respondents was that notice should be provided to all SEC Parties of Devices that require recertification in the next 6 to12 months. One respondent suggested that where Devices are not recertified by a defined period in advance of the recertification date the issue should be raised with the SEC Panel or Ofgem. One respondent also felt that there was not sufficient clarity on the penalties, compensation or fixed charges reductions where large numbers of devices are suspended.

127 We recognise that meters will churn over time and so it would be useful to Suppliers and other SEC Parties to receive notification in advance of the certification of a Device lapsing. In order that this information is provided in sufficient time to allow remedial action to be taken, we have concluded to require that the SEC Panel issues alerts 12 and then six months in advance of the certification lapsing. We do not intend to require the SEC Panel to investigate whether remedial action has been scheduled as the relevant Supplier should be sufficiently incentivised to ensure such action is taken in a timely manner (as otherwise they could be in breach of their licence).

128 One respondent suggested that the Technical Sub-Committee or SECAS, rather than the SEC Panel should be responsible for maintaining the CPL. They argued that the Panel may not have the expertise needed to interpret multiple notifications relating to a single

device. They also argued that the TSC or SECAS would be better placed to notify parties of amendments to the CPL and to undertake a more encompassing coordination role in the management of Certificates and firmware images. We consider it is appropriate that the overarching responsibility should rest with the SEC Panel, given the strategic importance of the CPL. However, in practice we would expect the SECAS, and if necessary the TSC, to be involved in the maintenance of the CPL.

129 Most respondents were supportive of the longer recertification period for CPA. However, one respondent suggested that a two year period was more appropriate, while another felt that any recertification requirement was inappropriate. We have concluded that the six year recertification period is appropriate as the longer recertification period will provide asset providers and Suppliers with greater confidence in their investment, and provide more stability in the market, thus reducing the threat of meter removal. The longer period is contingent on the tighter controls we have imposed around event-based updates to CPA certification, where only the Supplier (or the DCC in the case of communications hubs) can add firmware or hardware versions to Devices under existing Certificates.

130 Many respondents asked for a more detailed and transparent firmware update process and so we have amended and clarified the requirements. The purposes of the CPL are to provide assurance to the DCC and DCC users that installed Devices have the appropriate protocol and security Certificates (as defined in the technical specifications) and to support the authentication processes associated with the issue of firmware updates. We have removed the requirement for the firmware image to be stored on the CPL as it is not necessary to support the purposes of the CPL and we do not intend that the CPL becomes a repository for firmware versions. The Supplier operating a meter at any point in time is responsible for ensuring that the device is appropriately certified and so we expect that Suppliers will establish relationships with manufacturers either directly or via their asset providers/ operators. We will require, however, that Manufacturer Release Notes (MRN) and the hash of the firmware image are provided on the CPL.

131 The MRN will be a useful point of reference for Suppliers, especially at churn, seeking to understand the status of Devices and if firmware updates are available for and have been applied to those Devices. We will require that the hash of the firmware image is digitally signed by the manufacturer and the SEC Panel should only add the firmware version (or a device model) to the CPL if they have validated the manufacturer's signature.

132 Section H4, which describes the process by which firmware can be updated via DCC, has also been amended. Suppliers will be required to obtain a digitally signed firmware image and firmware hash of the firmware image and ensure the veracity of both the hash and signature. They must also arrange for this information to be provided to DCC, who must also check the veracity of the hash (against the hash listed in the CPL) before issuing a command to update a Device's firmware.

133 One respondent questioned whether the current SEC drafting would require recertification to cover every firmware or hardware upgrade. This is not the intent and so we have made an amendment to F2.9. This clarifies that Suppliers, or the DCC in the case of communications hubs, can add firmware and hardware versions to the CPL under an existing CPL Certificate if this is allowed by the assurance maintenance plan associated with that Certificate.

134 We have amended the requirements relating to devices falling off the CPL, as concerns were expressed as to the potential impact on DCC users and consumers. We proposed

that all communications to that Device should cease. However, in order to facilitate its timely upgrade, to not unnecessarily disadvantage consumers and to protect the end-to-end trust model, we will require the DCC to block commands from all users apart from the relevant Supplier and the gaining Supplier (for the purpose of Change of Supplier), with the Supplier required to only communicate with that device in order to bring the Device back to a certified state (for example, an update firmware command). If Communications Hubs are removed from the CPL only Critical Commands will be allowed to be sent to the Communications Hub or Devices associated with the Communications Hub, except where in respect of the Communications Hub the commands originate from the DCC and are necessary to return the Communications Hub back to a certified state. When the Device is reinstated to the CPL the DCC shall amend its state on the Smart Metering Inventory to what it was before it was suspended.

135 The Supplier or the DCC for communications hubs could be referred to the SEC Panel for non-compliance with the Technical Specifications and required to implement a remediation plan. They may also be subject to licence enforcement by Ofgem. We believe this should ensure that recertification and where necessary service restoration will be achieved in a timely manner.

136 In addition we are now also including finalised legal text to bring into effect requirements for the SEC Panel to establish the Technical Sub Committee. This was concluded on in SEC 2.

Summary of Government Conclusion

The SEC Panel will be required to maintain the CPL, including MRNs and the hash of firmware images, but not the firmware image itself. We have amended the process to be followed to add firmware and hardware versions to the CPL and the process by which firmware versions can be updated on Devices.

We will require that Devices are recertified under the CPA at least every six years and will require that the SEC Panel provides advance notice of Device models with Certificates that will lapse in the next 12 and six months. When Devices are removed from the CPL we will allow critical commands (and the firmware update command) to be issued to those Devices.

Summary of Changes to the Consultation Legal Drafting

SEC Section	Content
F1	• Introduced in line with the consultation legal text.
F2.2	• Removed the requirement for the firmware image to be included on the CPL. • Added requirement to include MRNs on CPL.
F2.6	• Added requirement on the Panel to inform all SEC Parties when the CPA Certificates for any Device Model is due to expire in 12 and six months.
F2.8, F2.10 and F2.11	• Added explicit reference to MRNs. • Clarified authentication process for hash of firmware image from manufacturer.
F2.9	• Minor amendment to clarify addition of firmware or hardware versions under an existing CPL

	Certificate and to explicitly refer to Assurance Maintenance Plans.
F2.13 – F2.15	• Clarified process for removal of Devices from the CPL.
F3	• Minor amendments to clarify provisions.
H4	• Clarified Update Firmware process. • Updated suspension provisions when Devices are removed from the CPL.

7. DCC Performance Reporting

Summary of Issue under Consideration

The DCC Licence places obligations on the DCC to monitor its service performance and requires annual service reporting. The DCC's Service Provider contracts also include provisions for the DCC to monitor service performance and provides for reductions in payments to the service providers to reflect any reduced levels of service received.

The SEC 2 consultation[18] included two questions which dealt with, amongst other things, the proposed approach and legal drafting to include a level of performance reporting for the DCC and DCC's Service Providers in the regulatory framework. The SEC 2 Consultation Response[19] did not conclude on or set out final legal drafting for performance reporting to enable some additional issues to be resolved. Government conclusions on these issues are included here. Revised legal drafting reflecting these conclusions will be introduced into the regulatory framework at a later date.

Government Consideration of Issue

137 SEC 2 legal drafting proposed five aggregate "Code Performance Measures" for the DCC together with a target and a minimum service level for each. It was proposed that the DCC must report on the achievement of these service levels on a monthly basis, and would only be able to change the Code Performance Measures against which it reports via the SEC Modifications Process.

138 SEC drafting also proposed that the DCC report via the DCC website on Service Provider performance against measures in the Service Provider contracts on a monthly basis. It was proposed that the DCC could adjust the reporting on detailed performance measures of its Service Providers following consultation with the Panel and SEC Parties. However the DCC would have control over amending these measures under the contracts and a SEC modification would not be required for such an amendment.

139 While the majority of respondents to the SEC 2 consultation largely agreed with this approach, approving in particular the transparency that it would provide for users, the DCC (and the Service Providers via the DCC) raised specific concerns regarding certain elements of performance reporting required under the Service Provider contracts. These concerns related to measures which were considered commercially sensitive, measures which captured information that is not user-facing and therefore may be of little relevance to users, and measures which would be more appropriate to report as aggregates in Code Performance Measures.

140 We have considered these responses and remain in favour of a transparent approach to performance reporting, although we recognise that there is a need to balance this approach against particular commercial sensitivities. We have therefore developed a revised list of Code Performance Measures and Service Provider Performance Measures for reporting against which provides an appropriate level of transparency on issues of

[18] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/251280/A_Consultation_on_New_Smart_Energy_Code_Content_-_SEC 2.pdf

[19] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/276173/government_response_to_the_consultation_on_new_SEC 2_content.pdf

particular interest to SEC Parties while recognising the commercial sensitivity concerns that have been highlighted. This comprises:

- a longer list of aggregate Code Performance Measures for the DCC to report against, for inclusion in the SEC to provide a robust aggregate report on the service as a whole and provide users insight into the standard of service being provided.[20] Two of these measures, relating to Disaster Recovery, will be consulted upon as part of SEC 4 alongside the substantive obligations on Disaster Recovery and Business Continuity; and
- a refined list of Service Provider Performance Measures providing key information to DCC users (such as, those relating to accuracy of coverage or availability of the DCC WAN), as set out in Annex D.

141 For measures which are no longer proposed to form part of routine reporting, one of the following applies:

- it is already captured within Code Performance Measures;
- it will be captured in a new Code Performance Measure;
- it is not "user-facing"; or
- it relates to technical details of more relevance to DCC.

142 We have concluded that routine reporting against the DCC's Code Performance Measures and Service Provider Performance Measures will not be published on the DCC website and will be limited to SEC Parties, and the SEC Panel will have the discretion to provide performance reporting to other persons on request.

143 As previously, the SEC will require the DCC to maintain the list of Service Provider Performance Measures. The DCC will be required to consult with, but not obtain the approval of, the SEC Panel or Parties to amend the Reported List of Service Provider Performance Measures or the Service Provider Contracts with respect to performance reporting. The DCC would be required to justify any proposed amendments. The revised approach does not lead to any changes to the reductions in financial reward associated with performance, which will continue to be managed by the DCC under the contracts and subject to oversight by Ofgem.

144 It is to be noted that while the Service Provider Contracts were developed on the same basis, there are some slightly different performance measures based on the solution proposed by the respective Service Providers.

Summary of Government Conclusion

We consider the revised approach to performance reporting balances the need for transparency and provision of relevant information to SEC Parties, while making allowance for the commercial sensitivities. We have added new measures for the DCC to report against, and produced a revised list of Service Provider Performance Reporting, which the DCC will be able to amend subject to SEC Panel oversight. Routine reporting will now be provided to SEC Parties, the Authority and DECC, and the Panel will have the discretion to release information to other persons on request.

[20] Additional Code Performance Measures were also proposed in relation to SMKI in L8 in Section 3.3

Summary of Changes to the Consultation Legal Drafting

SEC Section	Content
H13: Performance Reporting	• The table of Code Performance Measures has been expanded to include a new measure relating to availability of the Self-Service Interface. • The Target and Minimum Service Level for reporting on Category 1 and Category 2 Incidents has been adjusted to provide a more meaningful measure, given the number of such incidents is envisaged to be very low and thus the percentage thresholds previously proposed would not capture relevant information. • Amendments made to require DCC to amend the Reported List of Service Provider Performance Measures subject to consultation and SEC Panel oversight. • Drafting has been amended to require DCC to provide the Reported List of Service Provider Performance Measures to SEC Parties, Panel, the Authority and the Secretary of State rather than publish on the DCC website.

8. Recovering Liability Costs

Summary of Issue under Consideration

Under the SEC, where a liability occurs in relation to either the payment of charges between a SEC Party and the DECC, or in relation to physical damage or loss caused to DCC property or systems, the DCC recovers the liability from all SEC Parties on the basis of market share. Payments to the DCC are calculated as a proportion of the Parties share of DCC charges in the previous 12 months as a prudent measure of market share, which is intended to minimise the unnecessary risk or exposure for the DCC. In this circumstance, the DCC is able to recover any liability amounts that it had paid out but which it had not subsequently recovered (for example in excess of any limit in their service providers contracts). This position was set out in the April 2013 SEC Consultation[21] and is reflected in K9.6 of the current SEC drafting.

Government Consideration of Issue

145 The April 2013 SEC Consultation also explored the apportionment of liabilities further. The consultation proposed a capped allocation for each affected Party where the damages are capped at the maximum amount any Party could individually claim under the SEC from the breaching Party. It sought views on this approach on the basis that provisions could be included within subsequent SEC drafting.

146 No stakeholders expressed a view on the capped allocation approach within the response to the April 2013 SEC Consultation and this matter was not been progressed further within the subsequent SEC related consultations. Furthermore, the methodology for liability allocation, which does not include a capped allocation, was subsequently utilised in relation to the recovery of Communications Hub financing costs in the circumstance that a loan is accelerated following non-payment as per K9.7.

147 We consider that the implementation of a capped allocation of net liabilities could result in a disproportionate allocation against smaller SEC Parties given the current share of DCC charges for the Large Suppliers. It would seem unreasonable to ask smaller SEC Parties to fund a significant liability owed by SEC Parties.

Summary of Government Conclusion

The current SEC drafting should be retained.

[21] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/193074/20130424_Stage_1_SEC_Response_and_Consultation_on_Updated_legal_text.pdf

9. Glossary

This section provides a glossary of the principal terms used in this document.

A complete set of definitions and interpretations of terms used in the SEC can be found in Section A of that document.

The definitions in this glossary are not intended to be legally precise, but instead to assist in understanding the consultation document.

Alert

A message from a Device or from DCC and sent to a DCC User across the User Gateway.

Command

A message sent by DCC to a Device over the SMWAN (or to a DCC User over the User Gateway to be executed locally) in order to instruct the Device to carry out an action.

Commissioned

A Device status recorded in the Smart Metering Inventory. The steps a Device must go through to be Commissioned vary by Device type, but essentially this status is achieved when: the Device has been added to the Smart Metering Inventory; it has been demonstrated that DCC can communicate with it (and vice versa) over the SMWAN; and its relationship with either the Communications Hub Function or a Smart Meter has been established.

Communications Hub

A device which complies with the requirements of CHTS and which contains two, logically separate Devices; the Communications Hub Function and the Gas Proxy Function.

Communications Hub Function

A Device forming part of each Smart Metering System which sends and receives communications to and from the DCC over the SMWAN, and to and from Devices over the HAN.

Communications Hub Technical Specifications (CHTS)

A document (which is to form part of the SEC) which sets out the minimum physical, functional, interface and data requirements that will apply to a Communications Hub.

Communications Service Provider (CSP)

Bodies awarded a contract to be a Service Provider of communications services to DCC as part of DCC's Relevant Services Capability. Arqiva Limited and Telefónica UK Limited have been appointed to provide these services.

Core Communication Services

The services associated with processing a specific set of Service Requests set out in the DCC User Gateway Services Schedule in a manner that involves communication via the SMWAN, but excluding the Enrolment Services.

Correlate

A check, to be carried out by DCC Users, to ensure that the Pre-Command created by DCC after transforming a Critical Service Request is substantively identical to the original Service Request.

CoS Party

A separate part of the DCC, responsible for signing critical Commands to update a Supplier's Security Credentials on a Device following the submission of a 'CoS Update Security Credentials' Service Request by an incoming Supplier to the DCC.

Data and Communications Company (DCC)

The holder of the Smart Meter communication licence, Smart DCC Ltd.

Data Service Provider (DSP)

The company awarded a contract to be a Service Provider of data services to DCC as part of DCC's Relevant Services Capability. CGI IT UK Limited has been appointed to provide these services.

DCC Licence

The licence awarded under section 7AB of the Gas Act 1986, and the licence awarded under section 5 of the Electricity Act, each allowing Smart DCC Ltd to undertake the activity of providing a Smart Meter communication service.

DCC Service Providers

Companies or persons from whom DCC procures Relevant Services Capability; principally the DSP and the CSPs.

DCC Systems

The systems used by the DCC and its DCC Service Providers in relation to the Services and / or the SEC, including the SMWAN but excluding the Communications Hub Functions.

DCC Total System

All DCC Systems and Communications Hub Functions.

DCC User

A SEC Party who has completed the User Entry Processes and is therefore able to use DCC's Services in a particular User Role.

DCC User Gateway

The communications interface designed to allow appropriate Smart Metering communications to be sent between DCC Users and the DCC.

Device

One of the following: (a) an Electricity Smart Meter; (b) a Gas Smart Meter; (c) a Communications Hub Function; (d) a Gas Proxy Function; (e) a Pre-Payment Interface; (f) an Auxiliary Load Control; or (g) any Type 2 Device (e.g. IHD).

Distribution Network Operators (DNOs)

Holders of electricity Distribution Licences.

Elective Communications Services

The services associated with processing of Service Requests that are (or are to be) defined in a Bilateral Agreement (rather than the DCC User Gateway Services Schedule) in a manner that

involves communication via the SMWAN (provided that such Service Requests must relate solely to the Supply of Energy or its use).

Electricity Smart Meter

A Device meeting the requirements placed on Electricity Smart Metering Equipment in the SMETS.

Eligible User

A DCC User who, acting in a particular User Role, is eligible to receive particular DCC's Services, including in relation to a particular Device.

End-to-End Smart Metering System

Any DCC System, Smart Metering System, User System or RDP System.

Enrolled

The status of a Smart Metering System when the Devices which form part of it have all been Commissioned.

Enrolment Services

Services associated with the processing of Service Requests that are involved in the commissioning of Devices in the Smart Metering Inventory, and establishing their inter-relationships, and which ultimately result in the Enrolment of Smart Metering Systems ready for communication via DCC over the SMWAN.

Foundation stage

The period prior to the start of the Mass roll-out stage.

Gas Proxy Device

A Device which stores and communicates gas-related metering information, required in order to reduce the necessary battery life of Gas Meters, and which forms part of the Communications Hub. The Gas Proxy Device is treated as a separate logical Device for the purposes of Smart Meter communications.

Gas Smart Meter

A Device meeting the requirements placed on Gas Smart Metering Equipment in the SMETS.

GB Companion Specification (GBCS)

A document setting out amongst other things, the detailed arrangements for communications between the DCC and Devices and the behaviour required of Devices in processing such communications.

Hand Held Terminal (HHT)

A HAN-connected Device used by authorised personnel for meter installation and maintenance purposes.

Home Area Network (HAN)

The means by which communication between Devices forming part of Smart Metering System takes place within a premises and which is created by the Communications Hub Function.

Initial Live Operations

The expectation that the DCC will have built and tested its systems for SMETS2 equipment and be operationally ready; all of the Large Suppliers will be ready to use the DCC's Services, start installing SMETS2 meters and offer basic services to both credit and pre-payment customers; the DNOs will be ready to support Smart Meter installation; and the Electricity DNOs ready to use the DCC Service to improve network management. Currently, this is planned to be September 2015.

In-Home Display (IHD)

An electronic Device, linked to Smart Meter, which provides information on a consumer's energy consumption and ambient feedback.

Mass roll-out stage

The period between the date at which the DCC starts providing Core Communications Services and the fulfilment of the roll-out obligation as specified in the roll-out licence conditions.

MPAN

The Meter Point Administration Number, being a unique reference number for each metering point on the electricity distribution network and allocated under the Master Registration Agreement.

MPRN

The Meter Point Reference Number, being a unique reference number for each metering point on the gas distribution network and allocated under the Uniform Network Codes.

MPxN

A collective reference to the MPAN and MPRN.

Network operators

A collective term for holders of electricity distribution licences and gas transportation licences.

Outage detection

The ability for an electricity supply interruption to be identified and communicated to the SMWAN.

Parse

The conversion of Service Responses and Alerts received from DCC over the User Gateway into a more user-friendly format.

Parse and Correlate Software

Software to be provided by the DCC which enables users to carry out the Parse and Correlate activities.

Pre-Command

A message generated as part of the processes of converting of Service Requests into Commands, i.e. after Transformation by DCC. For Critical Service Requests Pre-Commands are returned to the DCC User for correlation and signing after DCC has transformed the Service Request.

RDP System

The systems used by, or on behalf of a Network Operator for the collection storage, back-up, processing, or communication of Registration Data prior to being sent to DCC.

Registration Data Provider (RDP)

A person nominated by a Network Operator to provide Registration Data to DCC under the SEC.

Release Management

The process adopted for planning, scheduling and controlling the build, test and deployment of releases of IT updates procedures and processes.

Relevant Services Capability

The internal and external resources which the DCC relies upon in order to provide services to DCC Users.

Smart Meter

A Gas Smart Meter or an Electricity Smart Meter.

SECAS

The company appointed and contracted to SECCo to carry out the functions of the Code administrator and the Code Secretariat - Gemserv.

SECCo

A company established under the SEC, owned by SEC Parties and which acts as a contracting body for the SEC Panel.

SEC Subsidiary Documents

Documents that are referenced by and forming part of the SEC, and thus subject to the SEC Modifications Process

Service Request

A communication to the DCC over the User Gateway (and in a form set out in the User Gateway Interface Specification) that requests one of the Services identified in the User Gateway Services Schedule (or, in future an Elective Communications Service).

Service Response

A message sent from DCC to a DCC User over the User Gateway (and in a form set out in the User Gateway Interfaced Specification) in response to a Service Request.

Smart Energy Code (SEC)

The Code designated by the Secretary of State pursuant to Condition 22 of the DCC licence and setting out, amongst other things, the contractual arrangements by which DCC provides services to DCC Users as part of its Authorised Business.

Smart Metering Inventory

An inventory of Devices which comprise Smart Metering Systems which are (or are to be) Enrolled with DCC. The Smart Metering Inventory also holds information about Devices and their inter-relationships.

Smart Metering Equipment Technical Specifications (SMETS)

A specification (which is to form part of the SEC) of the minimum technical requirements of Smart Metering equipment (other than Communications Hubs which are separately dealt with in CHTS).

Smart Metering System (SMS)

A particular collection of Commissioned Devices installed in a premises:

- a Gas SMS comprises a Communications Hub Function, a Gas Smart Meter, a Gas Proxy Device and any additional Type 1 Devices; and
- an Electricity SMS comprises a Communications Hub Function, an Electricity Smart Meter and any additional Type 1 Devices.

Smart Metering Wide Area Network (SMWAN)

The network that is used for two way communication between Communications Hub Functions and the DCC.

Solution Architecture

The overall Technical Architecture of the DCC's Solution (including its Service Providers), comprising a description of the individual components of the Solution (including all Systems, Hardware and Software) and interfaces with the Systems of other DCC Eco-System Entities

Supplier

The holder of a gas supply licence or an electricity supply licence.

Technical Architecture

The DCC Systems and the Smart Metering Systems together, including as documented in the Technical Specifications.

Transformation

The conversion, by DCC, of a Service Request into the format required in order for the Command to be executed by a Device.

User Role

One of a number of different capacities in which a DCC Party may (if appropriately authorised and having gone through the necessary User Entry Processes) act, including: Import Supplier; Export Supplier; Gas Supplier, Electricity Distributor, Gas Transporter or Other User.

User System

Any Systems (excluding any Devices) which are operated by or on behalf of a User and used in whole or in part for:

- constructing Service Requests;
- sending Service Requests over the DCC User Gateway;
- receiving, sending, storing, using or otherwise carrying out any processing in respect of any Pre-Command or Signed Pre-Command;
- receiving Service Responses or alerts over the DCC User Gateway; and
- generating or receiving Data communicated by means of the Self-Service Interface.

Annex A: Responses received

Response to the SEC 3 Consultation were received from the following organisations

AMO	Npower
BEAMA/ EUA (joint)	Ofgem
British gas	Scottish Power
COOP	Scottish Power Energy Networks
DCC	SEC Panel
EDF	Siemens
EDMI	SSE/ Scotia gas Networks
Electricity North West	TMA
EON	UK Power Networks
Good Energy	XOServe
Northern Powergrid	

Annex B: Summary of responses to Consultation Questions

SMKI Policy Management Authority	
Q1	**Do you agree with our proposed approach and text for the SEC with respect to the Policy Management Authority? Please provide a rationale for your views.** Summary provided in the Government Response to the Consultation on New Smart Energy Code Content (Stage 3) – Part A (PMA)[22]
Q2	**Do you agree with our proposed approach to securing the timely appointment of PMA members? Please provide a rationale for your views.** Summary provided in the Government Response to the Consultation on New Smart Energy Code Content (Stage 3) – Part A (PMA)
The SMKI Service	
Q3	**Do you agree with our proposed approach and text for the SEC with respect to provision of the SMKI Service? Please provide a rationale for your views.** A large majority of those who responded to this question broadly supported the proposals for the SMKI Service. This included Suppliers, Network Operators and communications technology firms, with a number making additional comments or suggestions. One Large Supplier, although supportive of the majority of the drafting, did not agree with the proposals in relation to demand forecasting and management. They argued that such requirements did not take into account events outside of a user's control, and that the publication of details of user's who had breached the 110% target could be commercially sensitive and that the DCC should be flexible in its capacity management. The Supplier was also concerned that any congestion management methods introduced by the DCC could have commercial implications for users. It said that if demand forecasting/ management were to remain, it should be augmented by daily, rather than just monthly, forecasts, so that the DCC did not assume flat demand across a month. Other comments that were made by respondents in relation to this question were as follows: • One Large Supplier asked if there was a limit to the number of

[22] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/298843/sec3a_government_response.pdf

batches that a user could submit in one day.

- One Supplier suggested the target should be 115% rather than 110%.
- The DCC suggested that service availability should be aligned with the allowed down time for maintenance under Section H8.3, moving from 7AM-7PM to 8AM-8PM.
- A Supplier suggested that, under section H14.30 of the SEC (completion of SMKI and Repository Entry Process Tests), the DCC should notify the SEC Panel of the outcome as well as the relevant Party
- A Supplier suggested that under L4.6(b)(ii), the ability of the Secretary of State to specify a date by which drafts of the SMKI Interface Design Specification and SMKI Code of Connection, should be limited such that it could only be earlier than the date (linked to interface testing) set out in (i) of the same paragraph.
- A Supplier commented that it was very important that parties see key documents at the earliest opportunity and throughout their development lifecycle.
- A Supplier noted that there was a risk in the DCC procuring underlying service capability before legal drafting was fixed and that the DCC must build sufficient flexibility into the procurement process to mitigate against this.
- A Supplier said that section L8.1 of the SEC should state explicitly that Organisation and Device Certificates must be inserted into the repository by the DCC.
- A Supplier noted that the DCC had no penalties if it fails to hit the performance measures in L8.1 / L8.6.
- A Supplier expressed concern that the code performance measures in L8.6 ‘do not state a maximum timescale in which the final 1% of issues has to be dealt with’.
- A Supplier expressed concern that MOPS and MAMs can request a Device Certificates and argued that if this was implemented these parties should be subject to the same assurance regime. They were also concerned that as a result of this the DCC may therefore play a more active role in the installation process for these meters than has previously been anticipated.
- A joint Supplier Network respondent asked if access to an organisation’s Device Certificates should be restricted to that organisation only.
- A joint Supplier Network respondent asked about the arrangements for restoring SMKI services in the event of failure.
- A Supplier queried whether it was possible for a Party to have access to the Repository but not the Interface – it could not envisage a situation where this was possible.

	• A Supplier argued that response times from the Repository should be measured in milliseconds rather than the 30 second target set out in the consultation. Additional clarifications were also requested by respondents in the following areas: • A number of respondents sought greater clarity on the role of parties such as Registration Data Providers (RDPs) and Meter Operators with respect to the use of SMKI services. • Some respondents asked for clarity on charges for SMKI Services (including additional assurance requirements which are covered in Question 4), including further information on whether they would be explicit charges or covered by the DCC's fixed costs. • A Network Operator asked for clarity on whether communication with the SMKI Service and Repository would take place over the existing registration or DCC user gateway. • A Supplier asked for a timeline showing what was happening by way of artefact release against industry published milestones.
SMKI Assurance	
Q4	**Do you agree with our proposed approach and text for the SEC with respect to SMKI Assurance? Please provide a rationale for your views.** Summary provided in the Government Response to the Consultation on New Smart Energy Code Content (Stage 3) – Part A (PMA)
Certificate Policies	
Q5	**Do you agree with our proposed approach and text for the SEC with respect to the Device Certificate Policy? Please provide a rationale for your views.** In total twelve stakeholders responded to question five. Of those who responded, a large majority agreed with the proposed approach and SEC text in relation to the Device Certificate Policy. Of those that were supportive, the majority of comments referred to specific drafting suggestions or queries in relation to the policy. One stakeholder questioned whether additional drafting was required to cover termination of the Certification Authorities and Registration Authorities. One stakeholder asked how, in the absence of Certificate revocation, a Party would know which Device Certificate was the latest one and whether the DCC will maintain a list of no longer valid Device Certificates. Two Large Suppliers noted that further detail will follow in the Registration Authority Policy and Practices (RAPP) and so early visibility was important to maintaining the timetable. One Large Supplier questioned the approach to the Device Certificate

	Policy, in particular querying why meters have small Certificates processed in large data centres while SEC parties have large Certificates processed on meters.
Q6	**Do you agree with our proposed approach and text for the SEC with respect to the Organisation Certificate Policy? Please provide a rationale for your views.** In total thirteen stakeholders responded to question six. Of those who responded, a large majority of stakeholders agreed with the proposed approach and SEC text in relation to the Organisation Certificate Policy. One Large Supplier questioned the proposed lifetime of an Organisation Certificate, suggesting three years may not be suitable. One stakeholder suggested that the ARL validity period should be twelve months rather than thirteen. One Large Supplier said that it was important that responsibility for drafting the Certificate Policies was not transferred to the SMKI PMA at too early a stage, and suggested that a 'shadow' SMKI PMA be established instead. Other stakeholders asked questions around topics which are included in the SEC 4 consultation, including the approach to operating SMETS meters outside the DCC.
Using the SMKI Service	
Q7	**Do you agree with our proposed approach to parties using the SMKI service, including by Opted Out Non-Domestic Suppliers? Please give a rationale for your views.** The majority of respondents agreed with our proposed approach to require the use of Device Certificates by all Suppliers, however some requested further clarity on detailed implantation of this solution. Some of those who agreed offered conflicting views as to whether installers should not be able to sign up to SMKI and queried how the charging mechanism will work, with one suggesting that non-DCC user that are SMKI service users should be subject to charges for that service. A small number of respondents requested further clarity on the overall approach to opting in and out of the DCC before they were able to offer views on whether the proposed approach was appropriate. Two respondents requested continued industry engagement as the solution for opting in and out of the DCC is developed. A small minority of respondents disagreed with the proposal. One respondent thought that the limited technical capabilities of a non-DCC using Suppliers was likely to lead to replacement of equipment on churn – whether in or out of DCC. Therefore mandating the use of SMKI by opted out Suppliers was not justified.

Q8	**Do you agree with our proposed approach for the SEC with respect to Liabilities, Warranties and Indemnities? Please provide a rationale for your views.** In total thirteen stakeholders responded to question 8. Of those who responded, a large majority of stakeholders agreed with the proposed positions so far, subject to further information and the associated legal text being provided in SEC 4. Large Suppliers raised a number of questions and comments on the current approach including: • the importance of making clear the detail of DCC acting in different roles; • consideration of how non domestic opted out Suppliers will be captured by these arrangements; • understanding how liabilities are passed on at change of Supplier; • understanding the flow of liabilities from the SMKI Service Provider contract; and • questions on any indemnities in relation to confidentiality.
Providing the SMKI Repository	
Q9	**Do you agree with our proposed approach and text for the SEC with respect to the SMKI Repository? Please provide a rationale for your views.** In total fourteen stakeholders responded to this question. Of those who responded, a majority of stakeholders agreed with the proposed approach to the SMKI Repository and associated SEC legal text. A number of stakeholders, including Large Suppliers and energy networks, highlighted the importance of early visibility of the SMKI Repository Interface Specifications and Code of Connection. One Large Supplier commented that they believed the 30 second response time was too long. One Large Supplier questioned the arrangements when the Repository is unavailable. A number of stakeholders flagged specific drafting comments, for example that we should make it clear that the Code Administrator can lodge documents on behalf of the SMKI PMA.
SMKI Recovery Processes	
Q10	**Do you agree with our proposed approach and text for the SEC with**

	respect to SMKI Recovery Processes? Please provide a rationale for your views. The vast majority of respondents agreed with the proposal, with many agreeing in principle and requesting further detail, particularly in relation to responsibilities of each SEC Party and procedures supporting the Recovery Certificate process. Other points raised by respondents included: • whether the information that is confidential to the DCC and SMKI PMA can be shared with the SEC Panel; and • whether each user should define its own Recovery Certificate process or whether this will be defined by the DCC. A small minority of respondents did not agree with the proposal. Some felt that the information provided at this stage was insufficient for them to assess the adequacy of the proposal, while others thought that the Recovery CertificateRecovery Certificate should be established under a different Root Authority.
SMKI Testing	
Q11	**Do you agree with our proposed approach and text for the SEC with respect to SMKI and Repository Testing? Please provide a rationale for your views.** In total, 13 stakeholders responded to question 11. A significant majority were supportive of the proposals outlined in relation to SMKI and Repository testing (SRT). Half of those respondents, including a number of Suppliers, who were supportive of the proposals, included caveats to the proposed positions in their response. Some respondents mentioned that a one month notice period by the DCC in advance of SRT commencement should be increased, to allow more preparatory time for testing participants. One respondent commented that a sufficient period of time should be planned between SRT and go-live to ensure issues can be rectified. Small Suppliers stressed that, even though there is a small likelihood of them being ready for testing at SRT, they should not be precluded if they wished to participate. The framework presented in the SEC 3 consultation does not preclude Small Suppliers. A Large Supplier requested greater clarity as to what activities users need to undertake to prepare for SRT. Further detail will be provided as part of the SRT Approach and Scenarios Documents drafted by the DCC in consultation with Parties. A further view was presented that SMKI and Repository Service Entry Process Testing and SRT should be a homogenous entity, rather than two separate elements, in order to provide greater clarity regarding the SMKI process.

Q12	**Where appropriate, when do you consider your organisation will first need to obtain live Device and Organisation Certificates to be placed on Devices ordered from manufacturers? This will help to determine when the SMKI Service and SMKI Repository should Go Live. Please provide a rationale for your views.** In relation to question 12, a total of 13 stakeholders responded. Some respondents indicated that they require Certificates up to 3 months before DCC go-live. A Large Supplier suggested requiring Certificates in January 2015. The DCC mentioned that live Certificates were needed 4 months prior to the commencement of the live SMKI and Repository Service, to allow time to installing Certificates on ordered communications hubs. Some respondents require Certificates 'prior to installation' but they don't link their requirement to a specific time or event.
Q13	**Do you agree that Large Supplier Parties should be obliged under the SEC to be ready to participate in SMKI and Repository Testing? Please provide a rationale for your views.** The vast majority of the 13 respondents to Question 13 agreed that all Large Suppliers should be ready to participate in SMKI testing. One Large Supplier pointed out that this is consistent with the wider testing obligations and will minimise the potential for any delay. One Large Supplier suggested that participation should be staggered so as not to slow the pace of testing to the slowest participant. Another Large Supplier pointed out that any selection criteria for participation used by the DCC should be transparent and published and one Large Supplier questioned the value of all Large Suppliers having to be ready at the same time.
Q14	**Do you agree that it is sufficient for only one Large Supplier to complete SMKI and repository testing for the SMKI Service and repository to have been proved? Please provide a rationale for your views.** Of the 14 respondents to question 14 only the DCC, only three respondents agreed that only one Supplier can prove the SMKI service. All other respondents disagreed. There were many variations in views of precisely how many Suppliers will be needed to prove SMKI but a minimum of two Large Suppliers was a widely held view. The variations suggested included adding Small Suppliers to the Large Suppliers; adding Network Operators to the Large Suppliers; and having a mix of gas and electricity fuel types and gas and electricity Network Operators to prove the SMKI service and repository.
Q15	**Do you agree that the SMKI entry processes should be aligned with the User Entry Process Testing in relation to the DCC User Gateway and**

	Self Service Interface? Please provide a rationale for your views. There was unanimous agreement from the 14 respondents to question 15. The proposed approach was commented to be more efficient and would avoid confusion as compared to alternative approaches. Respondents agreed that aligning SMKI entry processes with User Entry Process Testing in relation to the DCC User Gateway and Self Service Interface would be the logical approach, considering that these processes are fundamentally intertwined. Some respondents raised the point that further detail on how closely User Entry Process Testing and SMKI entry processes will be coupled would be helpful. Further clarification was requested in relation to whether demonstration of SMKI results was an entry criterion for commencing User Integrated Testing.
Other Security Requirements	
Q16	**Do you agree with our proposed approach and text for the SEC with respect to the Location of System Controls? Please provide a rationale for your views.** Of all respondents expressing a view, a large majority agreed with the proposals put forward on requiring system controls to be located within the UK, with only one stakeholder disagreeing with the proposals. Supportive opinions were expressed by respondents from across different industries and sizes of organisation. A small minority of respondents commented that it would be helpful if the boundaries of the systems to which these obligations apply were more tightly defined.
Q17	**Do you agree with our proposed approach and text for the SEC with respect to the Obligations for Cryptographic Material? Please provide a rationale for your views.** All respondents who expressed a view on this question were in agreement with the proposals. Supportive opinions were expressed by respondents from across different industries and sizes of organisation. Some energy Suppliers pointed out that the expectation expressed in the consultation document, that larger energy Suppliers would use FIPS 140-2 Level 3 cryptographic modules was not codified in the obligations, and that without this some Suppliers may not choose to do this.
Supplier Nominated Agents	
Q18	**Do you think that it is important that MOPs / MAMs are able to access DCC services directly? Please provide a rationale for your views.** There were 18 responses to this question and of those who answered most were in favour of MOPs/ MAMs being able to access some limited DCC services directly. Comms and tech organisations agreed with the proposal – with one noting that this would make economic sense for small suppliers in

	particular. Three Network operators respondents agreed, one was against and considered it would increase the risk footprint. Two larger suppliers agreed – with one noting that any provision of services to SNAs should not impact on DCC services generally. Four large suppliers were keen that the commercial relationship between MOPs/ MAMs and suppliers should provide the route for access to services and should be able to cater for MOP/ MAM requirements. One noted that this could be a possible distraction at this time in terms of time and resources required to provide a different service for MOPs. Small suppliers, MOPs/ MAMs and manufacturers supported direct access for MOPs/MAMs.
Q19	**Do you have any views on the possible options identified for MOPs / MAMs to access DCC services? Please provide a rationale for your views.** There were 18 responses to this question and various views were expressed on the different options outlined in the consultation. Of the Comms and tech organisations responding two preferred option 3 ensuring clarity for all parties and avoiding complexity of 2 and possible barriers to entry of 1. One preferred option 2 as it providing a distinction between activities for a supplier and otherwise. : Two Network Operators expressed no preference, though of those one appeared to lean towards option 3 for accountability reasons. One argued that existing connections should be used suggesting option 1 was preferred and one considered options 2 and 3 workable but preferred option 3. Large suppliers expressed mixed views. Option 1 was favoured by three large suppliers as maintaining the current model of commercial relationships between MOPs/MAMs and suppliers. Option 2 was favoured by one supplier as offering the most flexible approach without undue cost though it recognised option 3 was simpler, but could be inappropriate for some MOPs/ MAMs or those working with a single supplier. Two supported option 3 as providing clarity about rights and obligations and enabling MOPs to fulfill their role effectively. Two more recognised the advantages of option 3, but expressed concerns about its operability and potential costs and the ability to cater different business models. Small suppliers supported option 2 or 3. MOPs/ MAMs views were supportive of option 3 as it formalises the role of MOPs/MAMs enabling them to support roll out activities, is flexible and caters for a range of different business models; they considered option 2 to be complex and option 1 as not delivering the benefits of direct access. Manufacturers preferred option 2 but also recognized advantages of option 3.
Q20	**Are there other options which should be considered for MOPs/MAMs to access DCC services?** There were 14 responses to this question, with respondents generally confirming that they had not identified alternative options.
Testing Phases	
Q21	**Do you agree with our proposed text for the SEC with respect to Test Phasing, consistent with our decisions on testing arrangements**

	detailed in our recent consultation response? Please provide a rationale for your views. There were 17 responses to question 21 of which 15 agreed with the proposed legal drafting. One Large Supplier was neutral in response to the question, while another Large Supplier did not support the proposed drafting and provided a range of minor alterations and points for clarification. Respondents who supported the legal text comprised Large and Small Suppliers, energy networks, RDPs and communications/technology companies. Several of these respondents also made some suggestions as to how the legal text could be refined. Respondents raised a number of questions and comments on the proposed approach including: • whether Network Operators would be mandated to take part in Interface Testing; • a suggestion that testing services should be available between 8am and 8pm Monday to Friday; • the funding arrangements for testing; • One respondent commented that as the DCC Registration Interface will be subject to the full security standards of the SMKI, this could present a timing issue as RDPs were expecting to implement SMKI later on in relation to their other DCC User Roles as Network Operators using the DCC User Gateway; and • RDPs also suggested the existing industry Data Transport Network (DTN) arrangements could be used to convey registration files to and from the DCC in the interim period. One respondent commented that as the DCC Registration Interface will be subject to the full security standards of the SMKI, this could present a timing issue as RDPs were expecting to implement SMKI later on in relation to their other DCC User Roles as Network Operators using the DCC User Gateway. RDPs also suggested the existing industry Data Transport Network (DTN) arrangements could be used to convey registration files to and from the DCC in the interim period.
Q22	**Do you agree that the term 'Enduring Testing' should be used to encompass both the End-to-End and Enduring Test stages in order to assist comprehension and simplicity? Would the consequential removal of the terms 'End-to-End Testing' and 'User Integration Testing' cause confusion or be undesirable, such that we should reinstate this terminology? Please provide a rationale for your views.** Responses to Question 22 were split, with a small majority supporting the retention of a specific End-to-End test stage in the legal drafting. Those respondents who agreed that the End-to-End terminology could be reworded did so on the basis that it would simplify terminology and ultimately achieve

	the same outcome. The respondents disagreeing with the terminology change from thought the change was confusing and would shift focus from the initial period of testing. Several respondents also suggested that although the process was the same, the nature of the testing was different. The End-to-End Test phase was focused upon getting multiple parties through the testing processes within a fixed period of time in the early stages of live operations; Enduring Testing suggested an on-going and less intense testing period.
Q23	**Do you agree with the proposed approach to include the Projected Operational Service Levels within the SEC? Please provide a rationale for your views.** All respondents bar one to Question 23 supported the proposal to include Projected Operational Service Levels in the SEC to some extent. Comments made in support the proposal included that: • it would provide a good level of transparency for users; • the SEC would provide a clear governance regime; and • any modifications would undergo an appropriate level of scrutiny. A minority of respondents conditionally agreed to including the Projected Operational Service Levels. Two respondents noted the link between Projected Operational Service Levels, and measuring and reporting on actual performance against those levels. One respondent suggested that the DCC should be required to test to the levels of service procured in the contracts and beyond to ensure that the systems and processes are robust and able to meet the demands of the industry, while the DCC proposed that it should test to the Operational Service Levels in the Service Provider contracts only. One respondent noted that although including the Projected Operational Service Levels in the SEC now would provide certainty, the requirements may be better placed in Section X to provide flexibility, which could then be moved to Section H once the levels were more stable.
Issue Resolution during Testing	
Q24	**Do you agree with the need for an issue resolution process in testing? Does the proposed process meet that need? Please provide a rationale for your views.** There were 15 responses commenting on whether there is a need for an issue resolution process during testing, all of which agreed in principle that such a process is necessary. A number of specific comments were provided, both in responses to Question 24 and 25, regarding the specific issue resolution proposed by the SEC drafting. The responses suggesting improvements to the processes or drafting are included in the summary for

	Question 25. In general, respondents emphasised that an issue resolution process would provide logging, visibility of and escalation for testing issues. It was further noted that testing issues are inevitable and speedy resolution is essential.
Q25	**Do you agree with our proposed text for the SEC with respect to Issue Resolution? Please provide a rationale for your views.** There were 15 responses commenting on the specific SEC drafting proposed for providing an issue resolution process. While the majority of respondents agreed or agreed in principle with the legal drafting and process proposed, there were some concerns raised on aspects of the process. Several Large Suppliers disagreed with the proposal that testing issues should be raised with DCC Service Providers at first instance. It was argued that issues should be raised directly with the DCC – and that a specific contact point or testing steering group should be nominated to deal with testing issues. Further, two Large Supplier parties suggested that response times for dealing with testing issues ought to be included within the SEC. It was also noted that the DCC Service Providers should not be able to unilaterally determine the priority status and severity of testing issues, but that this should be an agreed position or that there should be clear criteria in the SEC for determining this. A number of those responding raised concerns regarding the proposal to make information on testing issues (especially unresolved testing issues) publicly available via a website as this could cause a significant security risk. It was proposed instead that testing issues should be shared by a secure mechanism to SEC Parties only. Further specific suggestions for amendment to the legal drafting include: • requiring the DCC to consult with Testing Participants and SEC Parties regarding an appeal on a testing issues; and • making it clear that a testing issue is closed once the Panel has made a determination.
Smart Metering System Requirements	
Q26	**Do you agree with our proposed text for the SEC with respect to Equipment Testing, and configuration of enrolled Smart Metering Systems? Please provide a rationale for your views.** The majority of respondents were broadly supportive of the proposed SEC drafting. However some respondents suggested amendments with a small number stating that they were not content with the drafting as it currently stands. The main issue raised by respondents was that notice should be provided to all SEC Parties of devices that require recertification in the next 6-12 months, with one respondent suggesting that where devices are not

	recertified a defined in advance of the deadline the issue should be raised with the SEC Panel/ Ofgem. One respondent also felt that there was not sufficient clarity on the penalties, compensation or fixed charges reductions where large numbers of devices are suspended. One respondent suggested that the Technical Sub-Committee or SECAS, rather than the SEC Panel should be responsible for maintaining the CPL. They argued that the Panel may not have the expertise needed to interpret multiple notifications relating to a single device. They also argued that the TSC or SECAS would be better placed to notify parties of amendments to the CPL and to undertake a more encompassing coordination role in the management of Certificates and firmware images. Most respondents were supportive of the longer recertification period for CPA. However, one respondent suggested that a 2 year period was more appropriate, while another felt that any recertification requirement was inappropriate. Many respondents asked for a more detailed description of the CPA processes, including the recertification process. One respondent questioned whether the current SEC drafting would require recertification to cover every firmware or hardware upgrade. They argue that the description in the CPA documentation is clearer than the SEC requirements.

Annex C: Legal Drafting

This legal text for Stage 3 of the Smart Energy Code and the changes to the DCC Licences are set out below. These are being introduced into the Regulatory framework in summer 2014. As previously noted a consolidated version incorporating both SEC 3 and SEC 4 content will be produced as part of the SEC 4 consultation.

SMART ENERGY CODE

SECTION A: definitions and interpretation

Note: this document shows the changes/additions made as a result of SEC 3. It is not a full version of Section A (that is it does not repeat all of the existing definitions contained in that section)


SEC3 - Section A Extracts.DOCX

SECTION F: Smart Metering System Requirements


SEC 3 - Section F.doc


SEC 3 - Section F - changes tracked.doc

SECTION H: DCC Services


SEC 3 - Section H14.docx


SEC 3 - Section H14 - changes tracked.doc

SECTION L: Smart Metering Key Infrastructure


SEC3 - Section L.DOCX


SEC3 - Section L - tracked.DOCX

SECTION T: Testing During Transition


SEC 3 - Section T.docx


SEC 3 - Section T - changes tracked.doc

SECTION X: Transition

SEC 3 - Section X.doc

SEC 3 - Section X - changes tracked.doc

SEC Subsidiary Documents

SEC 3 - Appendix A.docx

SEC 3 - Appendix B.docx

SEC 3 - Appendix C.docx

SEC 3 - Appendix A - changes tracked.doc

SEC 3 - Appendix B - changes tracked.doc

SEC 3 - Appendix C - changes tracked.doc

DCC LICENCES

Interpretation

In these modifications–

(a) "smart meter communication licences" means–

the licence granted to Smart DCC Limited on 20th September 2013 under section 7AB(2) of the Gas Act 1986; and

the licence granted to Smart DCC Limited on 20 September 2013 under section 6(1A) of the Electricity Act 1989.

Modifications to smart meter communication licences

The conditions of the smart meter communication licences are modified, in accordance with paragraphs 3 to 6 below, with effect from the day after the day on which this instrument is made.

In condition 36, in paragraph 36.8, after "where RPIt means the" insert "percentage".

In condition 36, in paragraph 36.15, after "For the purposes of the Principal Formula, the correction factor (K)" delete "is" and insert "shall in the Regulatory Year 2013/2014 have the value of 0, and in each subsequent Regulatory Year shall be".

In Appendix 1 of condition 36, replace the existing table in Appendix 1 with the following table–

2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
1.769	**3.194**	**2.724**	**2.041**	**2.008**	**2.059**	**2.443**

“

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
1.959	**1.869**	**1.875**	**2.035**	**1.840**	**0.762**	**n/a**

”.

In Part F of Schedule 3–

(b) renumber the second paragraph that is numbered 3.4 (the first of which appears in Part E of Schedule 3) as paragraph 3.5;

(c) renumber existing paragraphs 3.5 to 3.9 as paragraphs 3.6 to 3.10 respectively;

(d) in the renumbered new paragraph 3.5 delete "paragraph 3.5 or paragraph 3.8" and insert "paragraph 3.6 and 3.9";

(e) in the renumbered new paragraph 3.6 delete "paragraph 3.4" and insert "paragraph 3.5";

(f) in the renumbered new paragraph 3.7 delete "paragraph 3.5" and insert "paragraph 3.6";

(g) in the renumbered new paragraph 3.9 delete "paragraph 3.4" and insert "paragraph 3.5";

(h) in the renumbered new paragraph 3.10 delete "paragraphs 3.5 and 3.6" and insert "paragraphs 3.6 and 3.7"; and

(i) in the renumbered new paragraph 3.10 delete "paragraph 3.8" and insert "paragraph 3.9".

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Annex D: Service Provider Performance Measures

DSP CONTRACT – PERFORMANCE MEASURE REPORTING

Performance Area	PM No.	SM / KPI	Performance Measure
Availability	2.1	SM	Percentage Service availability – DCC Data Service (Production Services)
	2.2	SM	Percentage Service availability – DCC User Gateway (Production Services)
	2.3	SM	Percentage Service availability – DCC Service Management System
	2.4	SM	Percentage Service availability – Self Service Interface (Production Services)
	2.5	KPI	Percentage Service availability – Average Interface availability
	2.7	SM	Percentage Service availability - Externally exposed test services (08.00 to 20.00 UTC Monday to Saturday)
Application Management	3	SM	Number of Severity Level 1 or 2 Incidents directly related to a Change Release occurring within 30 days of release of the Change Release
Service Management	7	KPI	Notification of Planned Maintenance events within required target
Anomaly Detection	11	KPI	Percentage of anomalous Service Requests notified within 30 minutes.

CSP CONTRACTS – PERFORMANCE MEASURES REPORTING

Performance Area	PM No.	SM / KPI	Performance Measure
Communications Hub Connectivity	1.1	SM	First time SMWAN connectivity at install
	1.2 N	SM	First time SMWAN connectivity within 30 days
	1.2 C/S	SM	First time SMWAN connectivity within 90 days
	1.3 N	SM	First time SMWAN connectivity within 90 days
	1.3 C/S	SM	SMWAN Connectivity Level
	1.4 N	SM	SMWAN Connectivity Level
Network Availability	6.2	SM	Percentage availability of DCC WAN Gateway Interface
Service Management	10	KPI	Notification of Planned Maintenance events within required target
	11	KPI	Accuracy of Coverage Database provided to DCC Service Users
Power Outage Events	12.1	KPI	Percentage of Power Outage Event alerts delivered: 50 Communications Hubs or fewer
	12.2	KPI	Percentage of Power Outage Event alerts delivered: Greater than 50 Communications hubs

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