



Department
of Energy &
Climate Change

Smart Metering Implementation Programme

**Response and Further Consultation on the Regulatory Arrangements for
Enrolment and Adoption of Foundation Meters**

&

**Consultation on the Arrangements to Support Churn of an Enrolled Smart
Metering System from a DCC User to a non-User**

31 March 2014

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General information

Purpose of this document:

This response and consultation will help inform the content of the fourth stage of the Smart Energy Code, which governs the end-to-end management of Smart Metering in Great Britain.

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Respond by: 2 May 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.

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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 Purpose of this Document

- 1 The Data and Communications Company (DCC), its service providers, and energy suppliers will be required to establish projects to develop or procure systems or services under which the DCC will enrol and operate SMETS1 meters installed during the Foundation Stage on behalf of suppliers.
- 2 An appropriate regulatory and governance framework is required for these projects and to provide assurance to stakeholders that the projects will be progressed in an effective manner. This document sets out conclusions following the Consultation on these issues of 16 December 2013.
- 3 This document also seeks views on the proposed regulatory and operational arrangements to apply where a consumer with a Smart Metering System that has already been enrolled in the DCC switches supplier and the new supplier is not yet a DCC User.

Part A - Response and Further Consultation on the Regulatory Arrangements for Enrolment and Adoption of Foundation Meters

1.2 Summary of Conclusions

Governance of SMETS1 Enrolment Projects

- 4 The governance arrangements will be incorporated into the SEC at the earliest possible opportunity, with a transitional right for the Secretary of State to direct aspects of the process, as was proposed in the consultation.
- 5 The Secretary of State will determine when the Initial Enrolment Project is initiated.
- 6 Testing and approval of the operational systems and processes developed as part of any Enrolment Project will be consistent with the approach to testing of the DCC's main systems.

SMETS1 Compliance

- 7 Suppliers are responsible for ensuring the meters they wish to enrol are SMETS1 compliant and will be required to provide a compliance statement to the DCC. The form of the compliance statement will be defined in the SEC and is consulted upon in this document.
- 8 The DCC will maintain and publish an Enrolled Products List for enrolled SMETS1 metering equipment and this will include those meters that are included in an approved Enrolment Project Feasibility Report (EPFR) pending enrolment.

Clarifications to Adoption Criteria

- 9 The Government has taken account of concerns expressed by respondents regarding the Termination Notice Period and has further modified this criterion to clarify that it will only be used by the DCC to facilitate the consolidation of contracts for commercial efficiency in a timely manner. Contracts will not be terminated without prior agreement of the supplier that is operating the meter.

- 10 The proposed changes to the Core Services definition, Novation Clause, Termination for Material Breach and Liability, Loss and Disaster will be reflected in legal drafting.
- 11 This document also clarifies that that the extent to which communications contracts meet the Adoption Criteria are only one part of the considerations taken into account by the DCC in developing an EPFR.

Clarifications to SMETS1

- 12 SMETS1 clarifications as proposed in the consultation will be brought about by the Secretary of State using his existing power provided in the electricity and gas supply licence conditions.

Charging for SMETS1 Communications Costs

- 13 As proposed, we will amend the Foundation charging approach as highlighted below:
Additional on-going communications costs for Foundation meters enrolled with the DCC will be paid by the supplier responsible for the meter, as long as that supplier is the supplier which **established the adopted communications** contract prior to the date of adoption. If the meter has churned, a supplier gaining a **SMETS1 meter and a communications contract which it did not establish** will pay the same charges as for a SMETS2 meter operated through the CSP communications service.

SMETS1 Services

- 14 The minimal set of services the DCC will provide for SMETS1 will be defined in the SEC and are set out in Annex 2. The response times for these services will be defined as part of the Enrolment Project Feasibility Report (EPFR).

1.3 Further Consultation on Authorisation of EPFRs

- 15 Having further considered the issues in light of the responses received and subsequent discussions at the industry working group, on authorisation of the Initial EPFR, we are minded that the Secretary of State should authorise the EPFR for the Initial Enrolment Project. We propose that EPFRs in respect of any subsequent enrolment project(s) should be authorised via the SEC Modifications process.
- 16 These positions are the subject of further consultation in this document.

Part B - Consultation on the arrangements to support churn of an enrolled Smart Metering System from a DCC User to a non-User

1.4 Summary of proposals

- 17 There may be a period after DCC live operations have commenced when some suppliers have completed DCC User entry to become DCC Users, but others have not yet done so. During this period, a domestic consumer with a DCC-enrolled SMETS 2 smart metering system could churn to a supplier which is not yet a DCC User and a process is required to support the continued operation of meters in these circumstances.
- 18 This document sets out, and seeks views on, the proposed operational and regulatory arrangements that should apply in these circumstances. The Government proposes that:

- a gaining non-User supplier should be obliged to notify the DCC when it has gained a DCC-enrolled SMS, using a secure, non-Gateway mechanism to be provided by the DCC;
 - the costs for the DCC to implement the non-Gateway service should be recovered from all DCC Users as part of the DCC's fixed costs;
 - non-User suppliers should be entitled to request that their SMKI credentials (where available) are placed on the relevant devices by the DCC. The Government considers it is in their general interest that all suppliers should do so.
 - if there are, however, circumstances where a gaining non-User supplier's SMKI credentials are unavailable, we propose that the status of the relevant devices should either be set to "Suspended" in the DCC's Smart Metering Inventory; or a "Suspense Certificate" subscribed for by the DCC should be placed on a device. Views are sought on the merits of both options;
 - the DCC's fixed costs to implement the relevant services to non-Users (i.e. the costs of making required changes to its systems and processes) should be recovered across all SEC Parties;
 - the DCC's operational costs for providing these services should be socialised where the non-User supplier is an SMKI Subscriber, but that a service charge should be levied against a non-User who is not an SMKI Subscriber (to reflect the additional costs of either the "Suspended Status" or "Suspense Certificate" service);
 - a non-User supplier should pay all relevant DCC Communications Hub charges.
- 19 The Government also invites views on the extent to which these proposed domestic market arrangements may apply to non-domestic suppliers.
- 20 Under the proposals set out in this document, a consequence of churn to a non-User will be that the non-User supplier will have to operate as a 'dumb' supplier until it becomes a DCC User, as it will not have access to the DCC User Gateway. This would mean the customer would not benefit from the provision of smart services until the new supplier becomes a DCC User. It is therefore in the general interest that the duration of any such period is kept to a minimum. Although there will be significant commercial incentives on suppliers to ensure that they do complete the necessary procedures as soon as possible, there may be benefit in further regulatory intervention to help ensure any transition period is minimised. However this needs to be considered in a wider context with a view to ensuring the regulatory framework is optimised for the conditions in the period after the DCC has commenced live operations. DECC is currently assessing options, including regulating for smart installations in circumstances where a meter has to be replaced or a new meter fitted, with a view to publishing a consultation later this year.

Part A - Response and Further Consultation on the Regulatory Arrangements for Enrolment and Adoption of Foundation Meters

2 Introduction

2.1 Smart metering and the Foundation Stage

- 21 From autumn 2015, all major energy suppliers will be able to use the shared infrastructure provided by the Data and Communications Company (DCC). However, some energy companies are already installing smart meters and these will operate outside the DCC at the point at which the DCC's services become operational. This period before the start of Initial Live Operations is referred to as the "Foundation Stage".
- 22 There are important shared benefits from the DCC being able to enrol and adopt SMETS1 metering systems installed during the Foundation Stage including more efficient and effective switching for customers with such meters and reduced risk that these assets are replaced before the end of their operating lives.
- 23 We have previously consulted¹ on arrangements to enable energy suppliers to enrol these metering systems and concluded that:
- Suppliers can choose to enrol smart meters installed during Foundation into the DCC;
 - All significant populations of meters installed during Foundation which comply with the relevant technical specifications (SMETS) will qualify for enrolment;
 - Enrolment of Foundation meters will be delivered through one or more Enrolment Projects which will be managed by the DCC;
 - Subject to a process for determining the feasibility of an Enrolment Project, the DCC will be required to design or acquire a system or service to interface with each group of meters to be enrolled, and to adopt the associated Foundation communications contract(s);
 - The fixed costs incurred by the DCC to deliver an Enrolment Project will be spread across all DCC Users, in the same manner as the development cost of the main DCC systems; and
 - A supplier which establishes a communications contract that is more expensive than the charge for a SMETS2 meter operated through the CSP communications service will bear the additional costs that are incurred where they are the party that is enrolling the meter.

The conclusions contained in this current document relate to the enabling governance arrangements and process to deliver these agreed policies.

¹ "The Government's Final Response to the Consultation on the Foundation Smart Market" (24 July 2013)

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/225054/Foundation_Smart_MarketFINAL.pdf

"The Government Response to the Consultation on the Foundation Smart Market and Further Consultation" (10 May 2013)

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/225055/FSM_Consultation_Response_FINAL_0900_10-05-13.pdf

"Foundation Smart Market Consultation Document" (2 Nov 2012)

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/66569/6860-foundation-smart-market-consultation-doc.pdf

3 Enrolment Projects – Regulatory and Governance Framework

3.1 Introduction

- 24 Suppliers can choose to request that SMETS1 compliant meters are enrolled into the DCC through an Enrolment Project. This will require the DCC to design or acquire a system or service to interface with a specific cohort of meters and to adopt the relevant communications contract(s).
- 25 The Government has previously concluded that: (i) all significant populations of such meters should be enrolled through Enrolment Projects; (ii) the first generation of enrolment should be undertaken as a single exercise to minimise costs, and (iii) the Enrolment Project development costs should be spread across all DCC Users.²
- 26 This section considers the regulatory options that are available to give effect to these Enrolment Projects and sets out proposals for certain key features of Enrolment Project governance, including:
- determination of the timing of the Initial Enrolment Project;
 - approval of Enrolment Project Feasibility Reports³; and
 - testing of the systems and processes developed as part of the projects.

3.2 Implementation of the Regulatory Framework for Enrolment Projects

- 27 The DCC Licence contains provisions which oblige it to support Enrolment Projects. However, additional legal provisions will be needed to govern key elements of the Enrolment Project decision making procedure and the Consultation set out several options regarding the manner in which the enabling provisions can be set out in the SEC:
- **Option 1:** incorporate the full detail of the enrolment process and governance arrangements into the SEC at the earliest possible opportunity;
 - **Option 2:** incorporate the full detail of the enrolment process and governance arrangements into the SEC at the earliest possible opportunity, with a transitional right for the Secretary of State to direct aspects of the process;
 - **Option 3:** incorporate a specific requirement into the SEC or DCC Licence for the DCC to undertake an Enrolment Project (or related activities) at such time and in such a manner as directed by the Secretary of State. The detailed supporting process would be developed at a later point in time for incorporation into the SEC such that it could be used for future Enrolment Projects, if appropriate; and
 - **Option 4:** incorporate the enrolment process and governance arrangements into the SEC at a later point in time using the existing powers vested in the Secretary of State.

² “The Government Response to the Consultation on the Foundation Smart Market and Further Consultation” (10 May 2013)

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/225055/FSM_Consultation_Response_FINAL_0900__10-05-13.pdf

³ A report setting out the approach to each Enrolment Project, including technical options, risk assessments, test strategy and costs

Respondent Views

- 28 Respondents were mainly supportive of Options 1 (six respondents) and Option 2 (seven respondents), as these provided early clarity on the process. Option 3 and Option 4 were each supported by three respondents who noted that later definition was more likely to result in the creation of an optimal process. Three respondents did not comment.

Government Conclusions

- 29 The Government has carefully considered the responses and has concluded that Options 3 and 4 do not provide the necessary clarity requested by the market. Option 1 could result in the creation of a solution which is suboptimal at the point at which the enrolment project is required and we therefore consider that Option 2, which provides as much early clarity as possible while still allowing Secretary of State to direct aspects of the process if necessary, should be implemented.

3.3 Commencement of the Initial Enrolment Project

- 30 The Consultation laid out a number of factors to be taken into account when determining the point at which the Initial Enrolment Project should commence:
- Enrolment of meters will reduce the risk of asset stranding or a dispute following a change of supplier event and therefore there may be advantages in enrolling SMETS1 meters at the earliest possible opportunity.
 - Alternatively, delaying enrolment activity until there is a sufficient population of SMETS1 meters to be enrolled would provide clarity over the number and type of meters that will be eligible for enrolment and could ensure project costs are optimised and/or the number of separate projects is minimised.
 - The Initial Enrolment Project should be undertaken at a point in time which does not present any risks to the development and implementation of the main DCC systems and services which enable enrolment of SMETS2 meters.
- 31 The Consultation proposed that the Secretary of State should initiate the process to commence the Initial Enrolment Project.

Respondent Views

- 32 Nineteen respondents agreed with the proposal that the Secretary of State will determine the point (or earliest point) at which work on the Initial Enrolment Project should commence and take account of the full range of factors identified above. Three respondents did not comment.

Government Conclusions

- 33 The Government has reviewed the responses and has concluded that the Secretary of State should initiate the process to commence the Initial Enrolment Project

3.4 Enrolment Project Testing

- 34 The DCC will be required to test the systems and processes delivered by the Enrolment Project to confirm that these operate correctly. This testing will be undertaken in accordance with the test strategy developed and approved as part of the EPFR. The

Consultation recommended that this testing is undertaken in accordance with the approach taken to testing of the DCC's main systems.

- 35 This approach will include;
- Enrolment Project Systems Integration Testing (EPSIT) to ensure that any new systems built or existing systems procured by the DCC function properly together and have been successfully integrated with the main DCC systems architecture.
 - Enrolment Project Interface Testing (EPIT) to confirm that DCC can provide the relevant DCC services to Users in respect of the enrolled meters.
- 36 The Consultation also proposed that that approval of the completion of EPSIT and EPIT should be undertaken in a manner that is consistent with the approach to testing the DCCs main systems.

Respondent Views

- 37 Nineteen respondents agreed with the proposals for testing laid out above. Three respondents did not comment.

Government Conclusions

- 38 We have concluded that testing and approval of the operational systems and processes developed as part of an Enrolment Project will be consistent with the approach to testing of the DCC's main systems.
- 39 The Government has further considered the requirement for specific User Entry Process Tests (UEPT) for each Enrolment Project. On the basis that the SMETS1 service commands are a subset of the SMETS2 service commands and that the same User Gateway maybe used to communicate with SMETS1 and SMETS2 meters we believe additional UEPT should not be required for SMETS1 meters and that these should be the same as the SMETS2 UEPT.
- 40 However, we accept that there may be circumstances when the DCC recommends changes to the User Gateway, or when specific SMETS1 service commands are provided which do not form a subset of the SMETS2 service commands. We would therefore expect that the DCC will identify any requirement for specific Enrolment Project UEPT in the Enrolment Project Feasibility Report.

4 Assuring SMETS1 Compliance for Purposes of Enrolment Projects

4.1 Introduction

41 In the July 2013 Foundation Smart Market consultation response, the Government clarified the enrolment criterion as follows:

“The minimum criterion for inclusion of metering equipment within a Foundation Enrolment Project is that, **at the date of enrolment**, the meter is compliant with a version of SMETS.”

42 This change allows suppliers to enrol meters that become SMETS compliant after the meter is first installed but before it is enrolled (for example, where the installation completed before enrolment by way of a firmware upgrade).

4.2 Determining Compliance of Meters with SMETS1

43 The Consultation proposed the following approach for confirming meter compliance with SMETS1:

- the DCC should receive a statement from the energy supplier that the meter is SMETS1 compliant. The supplier should retain evidence to support the statement, which must be made available upon request of the SEC Panel and Ofgem. For the avoidance of doubt, the DCC would accept the compliance statement without confirming its validity.

44 The consultation also proposed that a common compliance statement should be provided to the DCC by all suppliers that wish to enrol SMETS1 meters and that the form of this statement should be set out in the SEC.

Respondent Views

45 Sixteen respondents agreed with the proposal on SMETS 1 compliance and agreed with provision of a common compliance statement.

46 Three respondents did not support the proposed option and preferred that DCC should have role in verifying the evidence behind compliance statements. One respondent expressed concerns regarding the manner in which the evidence chain would be maintained when a SMETS1 meters churns prior to enrolment. Three respondents did not comment.

Government Conclusions

47 We consider that suppliers are responsible for ensuring SMETS1 compliance of any meters that they gain prior to enrolment, regardless of whether they installed the meter or gained the meter on change of supplier. We further consider that requiring the DCC to verify evidence that supports the compliance statement is contrary to established policy that SMETS compliance is a supplier's responsibility

48 The Government has therefore concluded that suppliers will be required to provide a statement to DCC confirming that the meters that it wishes to enrol are SMETS1 compliant.

49 The form of a compliance statement will be defined in the SEC.

Enrolled Products List

50 The Consultation proposed that the DCC should maintain and publish an Enrolled Products List for meters in respect of which suppliers have confirmed that SMETS1 compliance testing has been completed and which have been enrolled through Enrolment Projects.

Respondent Views

51 All respondents agreed with the proposal for an Enrolled Products List. Some respondents wished to see an 'enrollable products list' to provide details of meters that had been included in an Enrolment Project Feasibility Report but had not yet been enrolled.

Government Conclusions

52 The Government has concluded that the DCC will maintain and publish an Enrolled Products List for enrolled SMETS1 metering equipment.

53 We recognise the value in providing further market certainty by identifying those meters that are enrollable, and have concluded that the Enrolled Products List will also include those meters that are in an approved EPFR but have not yet been enrolled.

5 Clarifications

5.1 Adoption Criteria

- 54 Meters that are eligible for enrolment and adoption must have an active communications contract in place. These contracts will be assessed by DCC against the adoption criteria that have been consulted upon previously.
- 55 The Consultation proposed some clarifications to the criteria as set out below.
- **Core Services** - the adoption criterion should be clarified to replace the term 'core services' with 'services applicable to SMETS1 meters as defined in the SEC'.
 - **Novation Clause** - the adoption criterion should be clarified such that individual communication contracts that are incorporated into an Enrolment Project are not required to be novated on the same date.
 - **Termination for Material Breach and Liability, Loss and Disaster Recovery Provisions** - confirmation that these provisions should be consistent with those which the DCC is already subject to.
- 56 The Consultation also proposed changes to the **Termination Notice Period** such that the adoption criteria should state that the notice period for termination of communications to an individual connection point should be changed to a maximum of 3 months rather than a minimum of 3 months such that the DCC can terminate the adopted contract and establish a new communications contract in a timely manner, should it be beneficial to do so.

Respondent Views

- 57 All respondents agreed with the clarifications to the definitions of Core Services, Novation and Liabilities.
- 58 Suppliers who responded were concerned that the criteria for the Termination Notice Period (as originally stated and with proposed clarification) would hamper negotiations with Foundation communications providers and would impact on existing communications contracts. Suppliers sought clarification as to the purpose of this clause.

Government Conclusions

- 59 The Government would like to further clarify that the intent of the Termination Notice Period clause is to allow flexibility for DCC to **drive commercial efficiency by consolidating contracts in a timely manner**. The termination notice period will only be used in these circumstances and the DCC will not terminate communication contracts without the prior discussion with the impacted supplier.
- 60 The Government intends to clarify the definitions of Core Services, Novation and Material Breach and Liability, Loss and Disaster as set out in the Consultation and has added further clarification as to the intent of the Termination Notice Period clause, as described in Annex 1.
- 61 We also further clarify that the extent to which communications contracts meet the Adoption Criteria are only one part of the considerations taken into account by the DCC in developing an EPFR and enrolling SMETS1 meters. The DCC will consider the extent to which any communication contracts vary from the Adoption Criteria and consider whether any variations can be addressed in the EPFR.

5.2 SMETS1 Requirements

- 62 The consultation proposed that a small number of clarifications should be made to SMETS1. It was noted that clarifying these requirements, while not strictly necessary, was in keeping with our aim to increase industry confidence that SMETS1 equipment can be enrolled with DCC.

Respondent Views

- 63 All of the eighteen respondents to this question agreed with the proposed clarifications to SMETS1, although there were some caveats.
- 64 A number of respondents noted that the proposed clarification to the future dated commands requirement should apply in both the gas and electricity sections of SMETS1 (in the consultation we gave the proposed drafting for the gas section only). It was always our intent that the amendment should apply to gas and electricity meters and this is reflected in the revised SMETS1.
- 65 We proposed that 'certain' commands could be future datable, but we did not define which specific commands this should apply to. A number of suppliers and manufacturers felt that we should define which commands should be future datable arguing that this would provide consistency of service after enrolment.
- 66 The capability to future date commands is not included within SMETS1 and inclusion of this definition would add to the functional requirements of SMETS1. We therefore consider that future datable commands are best defined by suppliers when procuring SMETS1 devices if they require their meters to exceed SMETS1 functionality. The enrolment projects will attempt to reflect the additional functionality that the metering equipment is capable of providing
- 67 A number of stakeholders also asked for clarification on a number of detailed points. We have discussed these issues with the individual respondents and consider that SMETS1 does not need to be further clarified to address these points.

Government Conclusions

- 68 The clarifications proposed in the consultation (summarised in Annex 4) will be brought about by the Secretary of State using his existing power provided in the electricity and gas supply licence conditions to direct amendments to SMETS1. Any meter installed to date or installed when SMETS1 remains in force that complies with the updated requirements will be considered SMETS1 compliant.
- 69 These clarifications will not be subject to further notification to the European Commission. The Government is clear these textual clarifications do not materially change the SMETS1 specification and that they will not make any currently installed SMETS1 meters non-compliant with SMETS.

6 Enrolment Projects – Charging Arrangements

6.1 Foundation Charging Approach

- 70 The Consultation proposed to clarify the Foundation charging approach that has been the subject of previous consultations, such that:

*the additional on-going communications costs will be paid by the supplier responsible for the meter, as long as that supplier is the supplier which **established the adopted communications contract** prior to the date of adoption. If the meter has churned, a supplier gaining a **SMETS1 meter and a communications contract which it did not establish** will pay the same charges as for a SMETS2 meter operated through the CSP communications service.*

Respondent Views

- 71 Fourteen respondents agreed with the proposal. One respondent maintained their position of objecting to the previously agreed policy of sharing SMETS1 costs under any circumstances across all Users. Seven respondents did not comment.

Government Conclusions

- 72 The Government intends to proceed with these clarifications which will be incorporated in the SEC.
- 73 It should be noted that to enable this charging approach for SMETS1 communication contracts to be implemented, a specific Charging Objective will be developed to be incorporated into the DCC Licence and repeated in the SEC. The form of this Foundation Charging Objective will be subject to future consultation.

7 DCC Services for Enrolled Smart Metering Systems

7.1 DCC Communication Services

- 74 The DCC and DCC Service Users will communicate through a series of Service Requests and Service Responses that are set out in the SEC. SMETS1 meters will generally benefit from the full set of DCC communications services. However, the functionality defined in SMETS1 and SMETS2 is different and, while the majority of the service requests and service responses apply to both, some are not supported in the SMETS1 specification.
- 75 The Consultation proposed a set of Communication Services that DCC would be required to provide for SMETS1 meters through the Enrolment Projects and it defined what those services might be.
- 76 These Communication Services will be accessed through the same user gateway as used for SMETS2 unless otherwise justified by the DCC in the EPFR.

Respondent Views

- 77 All respondents agreed that a set of SMETS1 communication services should be defined. Following receipt of several queries on the list of Services, the Government facilitated a technical workshop with industry to review and confirm the SMETS1 communication Services list.

Government Conclusions

- 78 Working with respondents, Government has concluded on a minimal set of SMETS1 Communication Services that DCC must provide for Users. Government has also concluded that the DCC, in developing the EPFR, should assess options for making the wider SMETS2 communication Services available to SMETS1 meters where:
- the additional functionality is supported by meters presented for enrolment and the additional functionality can be cost effectively delivered as part of the enrolment project;
 - this provides the DCC with greater flexibility in determining how to access the functionality of SMETS1 meters thereby supporting efficient and effective enrolment of SMETS1 meters; and
 - suppliers have visibility of those meters that are capable of supporting enhanced services, and the extent of those additional services.
- 79 Annex 2 lists the minimal set of SMETS1 Communication Services that will be incorporated into the SEC.

7.2 Service Performance

- 80 The Consultation proposed that the target response times for each specific Enrolment Project should be defined by the DCC as part of the Enrolment Project Feasibility Report and that the DCC should endeavour to establish common response times, recognising that these may vary between specific cohorts of enrolled SMETS1 meters.

Respondent Views

- 81 Eighteen respondents agreed with the proposal. One respondent preferred that a single set of response times for all enrolled SMETS1 meters is specified as part of the SMETS1 Service definition. Three respondents did not comment.

Government Conclusions

- 82 The DCC is obliged under provisions in SEC to deliver SMETS2 service requests and service responses within target response times that are set out in the SEC. While it is possible to define these target responses times for SMETS2 meters, it is not possible to take the same approach to the operation of SMET1 meters. This is because it is likely that performance levels specified within different adopted communications contracts will differ across the different cohorts of SMETS1 meters.
- 83 We do not believe that is possible to specify a set of response times in the SEC before the Initial Enrolment Project has been designed and when the terms of the existing SMETS1 communication contracts is unknown. We have therefore concluded that that target response times for each specific Enrolment Project should be defined by the DCC as part of the Enrolment Project Feasibility Report.

8 Authorisation of the Enrolment Project Feasibility Report (EPFR)

- 84 The DCC will be obliged to create an EPFR that explains how it will develop or procure systems or services to enrol and operate SMETS1 meters installed during the Foundation Stage, including how it will adopt the relevant communications contracts. The EPFR will require authorisation by a party before the DCC can proceed with building the systems and novating the communications contracts..

Consultation Proposals & Respondent Views

- 85 The Consultation set out a proposal that the SEC Panel should authorise the EPFR against criteria that will be set out in the SEC, with an appeal route to Ofgem.
- 86 Eighteen respondents accepted the consultation proposal. One supplier preferred that the Secretary of State should authorise the EPFR and another felt that Ofgem should take the decision following a modification process. Two respondents did not comment.

Government Conclusions and Further Consultation

- 87 Having carefully considered the Consultation responses and further analysed the EPFR authorisation process, we are bringing forward a new proposal.
- 88 When the SEC is fully in force and the bodies involved in modification procedures⁴ have the full vires and capacity to process modification requests, the modifications process should provide an appropriate route for enrolling SMETS1 meters. It would be open to any party entitled to raise a SEC modification (including the DCC) to submit a modification proposal to enrol a SMETS1 meter type. This proposal would then be progressed in accordance with the standard SEC modification process and under the path and timetable directed by the SEC Panel. An enrolment project modification would have the status of a 'Path 2' Modification⁵ requiring Ofgem determination.
- 89 However, we expect that decisions needed to support the enrolment of SMETS1 meters via the Initial Enrolment Project will be required during the transitional stage, before the bodies involved in the SEC modification process have the full vires to consider and determine modifications. We therefore propose that for the Initial Enrolment Project, the Secretary of State should authorise the EPFR. We consider that any subsequent projects to enrol a SMETS1 meter types that were not part of the Initial Enrolment Project should be considered for enrolment via the modifications process.
- 90 In determining whether to authorise the Initial EPFR the Secretary of State will consider whether the proposed enrolment and adoption approach is consistent with the stated policy objectives and may take into account, amongst other things: the views of the SEC Panel (including those of the Security and Technical Sub Committees); SEC parties; technical experts regarding the feasibility of the proposed solution; and Ofgem regarding the impact on consumers.
- 91 As previously stated, it is likely to be more cost effective if all the population of SMETS1 meters to be enrolled are covered by this Initial Enrolment Project.
- 92 The legal text to give effect to the policy will be consulted upon as part of SEC4.

⁴ The SEC Panel, supporting technical sub committees and Change Board established under the SEC.

⁵ As described in SEC section D2.

| | |
|-----------|---|
| Q1 | Do you agree with the proposal that the Secretary of State should determine whether to authorise the EPFR for the Initial Enrolment Project as described? If not, please provide an explanation for your answer. |
| Q2 | Do you agree that subsequent enrolment projects for SMETS1 meters should be considered via the modifications process? If not, please provide an explanation for your answer. |

Part B - Consultation on the arrangements to support churn of an enrolled Smart Metering System from a DCC User to a non-User

9 Arrangements to support churn of an enrolled Smart Metering System from a DCC User to a non-User

9.1 Introduction

- 93 There may be a period after DCC live operations have commenced when some suppliers have completed DCC User entry to become DCC Users, but others have not yet done so. During this period, a domestic consumer with a DCC-enrolled SMETS 2 smart metering system could churn to a supplier which is not yet a DCC User and a process is required to support the continued operation of meters in these circumstances.
- 94 A fall back process to support churn of meters from a DCC User to a non-User will therefore be required by the date at which the DCC starts to offer live Enrolment Services pursuant to the SEC, as this is the earliest point in time at which enrolled meters could start to churn to non-Users.
- 95 The proposals set out below relate primarily to the situation where a domestic consumer with an enrolled SMETS2 smart metering system (S2SMS) switches to a non-User supplier. However we are also seeking views on the extent to which they may apply in the non-domestic context.
- 96 The number of instances of churn to a non-User will depend on the length of time it takes for all suppliers to complete DCC User Entry, and the levels of customer churn during that same period. We currently expect this number to be relatively low, but recognise this could be greater than expected if, for example, there is a significant delay to a large supplier completing DCC User Entry.
- 97 The arrangements to address churn to a non-User will need to include rules, systems and processes to:
- (i) provide an appropriately secure means for a non-User supplier to interface with the DCC other than by using the DCC User Gateway so that change of supplier transactions can be processed;
 - (ii) manage the supplier security credentials on the relevant devices when there is a change of supplier event;
 - (iii) enable the DCC to recover its fixed and operational costs associated with developing and providing additional services for non-Users; and
 - (iv) provide for appropriate operational and commercial treatment of installed and commissioned DCC-provided Communications Hubs.
- 98 Under the proposals set out in this document, a consequence of churn to a non-User will be that the non-User supplier will have to operate as a 'dumb' supplier until it becomes a DCC User, as it will not have access to the DCC User Gateway. This would mean the customer would not benefit from the provision of smart services until the new supplier becomes a DCC User. It is therefore in the general interest that the duration of any such period is kept to a minimum. Although there will be significant commercial incentives on suppliers to ensure that they do complete the necessary procedures as soon as possible, there may be benefit in further regulatory intervention to help ensure any transition period is minimised. However this needs to be considered in a wider context with a view to ensuring the regulatory framework is optimised for the conditions in the period after the DCC has commenced live operations. DECC is currently assessing options, including regulating for smart installations in circumstances where a meter has to be replaced or a new meter fitted, with a view to publishing a consultation later this year.
- 99 The Government is also considering the extent to which the proposals set out in this document might impact existing regulations, (such as the Operational Requirements

Licence Conditions) and will develop and consult on any specific amendments to the relevant instruments in due course if required.

9.2 Policy Objectives

100 Our intent is that the process to address this issue should:

- be proportionate in view of the expected level of churn to non-Users;
- limit consumer inconvenience;
- maintain the end-to-end security of the smart metering arrangements;
- not create undue risk to DCC and industry preparations for ILO;
- place appropriate incentives on suppliers with regard to becoming DCC Users; and
- not prejudice those Suppliers, Network Operators and other parties who have already become DCC Users.

9.3 DCC Interface with non-Users

101 The current SEC Change of Supplier (CoS) process is driven by the gaining supplier sending a service request to the DCC via the DCC User Gateway. Likewise, a gaining supplier that is a Non-DCC User will need to notify the DCC of a change of supplier (CoS) event.

102 However, in this instance, the gaining supplier will not yet have passed the relevant User Entry Process Tests to allow access to the DCC User Gateway. A separate non-gateway communication mechanism between the gaining supplier and the DCC will therefore be required and we propose that a SEC obligation is placed on gaining non-User suppliers to use this mechanism to notify the DCC of CoS events.

103 The DCC will incur costs in establishing this service and we propose that these should be recovered as part of the DCC's fixed costs.

104 We believe that it is necessary to define some minimum security requirements for this non-Gateway mechanism, including a method for the gaining non-User supplier to authenticate itself to the DCC. Further work will be required to develop this non-Gateway interface and related security requirements.

| | |
|-----------|---|
| Q3 | Do you agree with the proposal that a gaining non-User supplier should be obliged to notify the DCC when it has gained a DCC-enrolled SMS, using a non-Gateway mechanism to be provided by the DCC? If not, please provide an explanation for your answer. |
| Q4 | Do you have any views on the method by which a non-User supplier should authenticate itself when communicating with the DCC? Please provide an explanation for your answer. |
| Q5 | Do you agree that the costs for the DCC to implement the non-Gateway service should be recovered as part of the DCC's fixed costs? If not, please provide an explanation for your answer. |

9.4 Security Approach

- 105 Unless a gaining supplier has become an SMKI subscriber, the losing supplier's security credentials (SMKI Organisation Certificate) will remain on a device that has churned. This would be inconsistent with the enduring smart metering trust model. This situation also creates a risk for the gaining supplier who will not have control of the security keys for devices that it operates and, if these keys are compromised, the relevant devices may need to be replaced.
- 106 The Government therefore considers that it would be desirable for a gaining non-User supplier's SMKI credentials (i.e. its Organisation Certificate) to be placed on the relevant devices by the DCC at CoS, even if it is not yet a DCC User.

Approach where non-User supplier is an SMKI Subscriber

- 107 A supplier may voluntarily become an SMKI Subscriber without having to become a DCC User and it is not expected that it will be complex or costly to do so. We propose that, where the non-User supplier is already an SMKI Subscriber, it may request that the DCC places its Organisation Certificate on the relevant devices. We consider that it should be in suppliers' general interest to do so.
- 108 It should be noted that, even in this situation, the gaining supplier would still not be able to operate the SMS via the DCC (as it would not have DCC User Gateway access) and would need to operate as a "dumb" supplier until it had become a DCC User. However this approach would ensure the continuation of services to other DCC Users in respect of the relevant SMS, including Network Operators and Other DCC Users (e.g. Authorised Third Parties).

Approach where where non-User supplier is not an SMKI Subscriber

- 109 We have considered different options to accommodate the situation where SMKI security credentials are not available to be placed on devices that have churned to non-Users. Options that have been rejected include doing nothing (i.e. simply leaving the old supplier's credentials on the devices); fully decommissioning the devices to remove them from DCC services; or the DCC undertaking additional access control activities to prevent the old supplier from sending critical commands. These options were discounted on the basis that they do not comply with the security model, or would be likely to result in the avoidable removal and replacement of devices.
- 110 We are seeking views on two further options that could apply in situations where the gaining non-User supplier is not an SMKI subscriber. Further work is required to fully assess the implications and costs of these.

Option 1 – Suspended Smart Metering Inventory Device Status

- 111 Under this option the losing supplier's SMKI credentials would remain on the devices but the status of the devices would be set to "Suspended" in the DCC's Smart Metering Inventory (SMI).
- 112 This option would reduce the risk that a losing supplier could inadvertently control a device that it had lost on churn as three proactive steps would be required for the losing supplier (whose security credentials are still on the meter) to send a critical command to a device it has lost on churn. The losing supplier would need to instruct the DCC to change the status of the device to "Pending" and follow this with an instruction to update the status to "Commissioned" before a further service command could then be sent and processed by the DCC. This might therefore be considered an adequate control and acceptable risk for losing suppliers.

113 However this approach would result in suspension of communication services for any Networks or Other Users (e.g. ATPs) seeking to access the S2SMS, as well as for the gaining supplier. Furthermore, the non-User gaining supplier would not have control of the security keys for a meter for which it is responsible and, if the security keys are compromised, the meter could become stranded and may need to be replaced.

Option 2 - Suspense Certificate

114 Under this option the DCC would subscribe for a “Suspense Certificate” which would be placed on a device that had churned to a non-User. The key would contain the relevant gaining supplier identifier (GUID) and the corresponding private key would be destroyed and thus be unavailable for use.

115 Commands could not be sent to a S2SMS upon which a Suspense Certificate had been placed, other than a command for the credentials to be changed once the gaining supplier has become a compliant SMKI Subscriber or DCC User, or when the device churns to another DCC User or SMKI Subscriber. However, further work is required to assess the security implications of placing “Suspense Certificates” on a large number of devices.

116 This option would remove the risk that a losing supplier can access a meter for which it is no longer responsible is removed. Furthermore the use of a “Suspense Certificate” will support the continuation of services to other DCC Users, including Network Operators and Other DCC Users. As with the other approaches described above, the gaining non-User supplier would still have to operate the SMS in dumb mode until it became a DCC User.

117 On the basis of our initial analysis, we consider that Option 2 would be preferable.

| | |
|----|---|
| Q6 | Do you agree that a non-User should be entitled to request that its SMKI credentials (where available) are placed on the relevant devices by the DCC? If not, please provide an explanation for your answer. |
| Q7 | Do you agree that non-User suppliers should not be required to become an SMKI Subscriber? If not, please provide an explanation for your answer. |
| Q8 | Do you agree that Option 2 should apply where a gaining non-User supplier’s SMKI credentials are unavailable? If not, please provide an explanation for your answer. |

9.5 DCC Services Charging options

118 The options that are described above would require the DCC to provide some level of additional services that will only be invoked by a non-User supplier. We propose that the DCC’s fixed costs to develop these services (i.e, the costs of making required changes to its systems and processes) should be recovered across all SEC Parties, as all parties may potentially need to rely on these to some extent (including losing suppliers who already DCC Users and Other DCC Users who wish to continue to access churned SMSs). This charging principle is consistent with our policy on socialising other fixed costs, for example the fixed costs associated with the enrolment of SMETS1 compliant meters.

119 However we are seeking views on the recovery of the DCC’s demand-led operational costs which are incurred each time the DCC is required to take action on behalf of a non-User supplier. The options that we have considered are:

- Option A: the DCC’s operational costs should be socialised across all SEC Parties;
- Option B: the DCC’s operational costs should be recovered by way of service charges to non-User suppliers;
- Option C: the DCC’s operational costs should be socialised where the non-User supplier is an SMKI Subscriber, but a service charge should be levied against a non-User who is not an SMKI Subscriber (to reflect the expected additional costs associated with either the “Suspended Status” or “Suspense Certificate” described above).

120 The Government is minded to implement Option C, as this would create an incentive for non-User suppliers to become SMKI Subscribers while limiting the level of costs socialised across those parties that have already become DCC Users.

| | |
|-----|---|
| Q9 | Do you agree that the DCC’s fixed costs to develop services to non-Users (i.e, the costs of making required changes to its systems and processes) should be recovered across all SEC Parties? If not, please provide an explanation for your answer. |
| Q10 | Do you agree that Option C should be implemented, so that the DCC’s operational costs for providing these services should be socialised where the non-User supplier is an SMKI Subscriber, but that a service charge should be levied against a non-User who is not an SMKI Subscriber? If not, please provide an explanation for your answer. |

9.6 CSP Comms Hub charges

121 An enrolled domestic S2SMS will operate with a CHTS-compliant DCC-provided Communications Hub (Comms Hub). The Government expects that non-User suppliers will generally retain the Comms Hub in situ and operational following churn to ensure that a future site visit is not required to re-instate a Comms Hub service once the supplier becomes a DCC User. This would also support provision of on-going DCC services for Network Operators and Other Users.

122 There are two options for Comms Hub charging during the period when a non-User is responsible for the consumer at whose premises the asset is installed:

- Option A: A gaining non-User supplier should pay all relevant DCC Communications Hub charges (including the rental and maintenance charges and any early termination/reconditioning charges if the hub is removed/returned);
- Option B – The Comms Hub charges for assets that have churned to a non-User are socialised among all SEC Parties.

123 Option A is consistent with the enduring approach that the supplier will pay the Comms Hub charges in respect of any premises at which it is the responsible supplier. However in this case it will be paying for an asset from which it is getting no benefit for a period.

124 Option B would reduce the non-User’s exposure to charges for an asset they are not using. However this could be perceived as penalising those suppliers and other parties that had already become DCC Users, as they would be liable for a share of charges in respect of premises where they are not the responsible supplier.

125 The Government is minded to implement Option A.

| | |
|-----|--|
| Q11 | Do you agree that Option A, a non-User supplier should pay all relevant DCC Communications Hub charges, should be implemented? If not, please provide an explanation for your answer. |
|-----|--|

9.7 Non-domestic market

126 The proposals set out above are intended to apply to the domestic sector. However the Government is also considering the question of User to non-User churn in the non-domestic market, including the application of arrangements where a supplier wishes to opt out of the use of DCC services. We would therefore welcome views on the implications of applying these proposed domestic market arrangements to those non-domestic suppliers wishing to use DCC services, as well as views on the elements of the arrangements that might apply to those intending to opt-out of DCC services.

| | |
|-----|--|
| Q12 | What are your views on the extent to which the proposals described in this section may also be an appropriate basis for managing churn to a non-domestic non-User supplier and non-domestic opt-out? Please provide an explanation for your answer. |
|-----|--|

10 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.

Adoption

The process by which a Foundation communications contract is novated from the supplier who entered into it to the DCC for on-going management.

Adoption Criteria

The criteria which a Foundation communications contract must meet to be eligible for Adoption by the DCC.

Communications Service Provider (CSP)

Bodies awarded a contract to be a service provider of the DCC's communications services. Arqiva Limited and Telefónica UK Limited have been appointed to provide these services.

Data and Communications Company (DCC)

The holder of the Smart Meter Communication Licence, Smart DCC Limited.

Data Services Provider (DSP)

Body awarded the contract to deliver systems integration, application management and IT hosting services to the DCC. CGI IT UK Limited has been appointed to provide these services.

DCC User

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

Enrolment

The process of incorporating a meter into management by the DCC's DSP, including commercial negotiation.

Enrolment Criteria or Criterion

The criteria or criterion which a meter must meet to be eligible for Enrolment.

Enrolment Project

A project through which SMETS1 compliant Foundation metering equipment will be enrolled by the DCC.

Foundation (or the Foundation Stage)

The period prior to the start of Initial Live Operations

Foundation Meters

Smart Meters installed during the Foundation Stage.

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 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

Meter Asset Provider (MAP)

Under the competitive metering market arrangements, Meter Asset Providers fund meters and seek to recoup the asset value of each meter from whichever energy supplier is currently using it to supply energy at premises at which it is installed.

Ofgem

Office of Gas and Electricity Markets. In this document, references to Ofgem are to be taken as references to the Gas and Electricity Markets Authority which is the governing body for Ofgem. The Gas and Electricity Markets Authority has objectives and powers under the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998 and the Enterprise Act 2002.

SEC Panel

Panel established to oversee the Smart Energy Code with powers and duties as set out in Section C of the SEC.

Smart Energy Code (SEC)

The SEC, as designated by the Secretary of State under Condition 22 of the DCC Licence, and setting out, amongst other things, the contractual arrangements by which DCC provides services to users as part of its Authorised Business. The SEC needs to be read alongside the DCC Licence, which sets out the high-level obligations for this new licensed entity. The DCC, energy suppliers and network operators are required through conditions in their licences to become parties to the SEC.

Smart Meter

A meter which, in addition to traditional metering functionality (measuring and registering the amount of energy which passes through it), is capable of providing additional functionality; for example, two-way communication allowing it to transmit meter readings and receive data remotely.

Smart Metering Equipment Technical Specification (SMETS)

The document designated by the Secretary of State and forming part of the SEC which describes the minimum technical requirements of smart metering equipment (other than Communications Hubs which are separately dealt with in CHTS).

Smart Metering Equipment Technical Specification version 1 (SMETS1)

The first version of the Smart Metering Equipment Technical Specification which was designated by the Secretary of State on 18 December 2012.

Smart Metering Equipment Technical Specification version 2 (SMETS2)

The second version of the Smart Metering Equipment Technical Specification which will be designated by the Secretary of State at a later time.

Smart Metering Implementation Programme (SMIP or the Programme)

The overall programme to deliver smart metering in Great Britain put in place following the Government's December 2009 response to consultation. The SMIP is overseen by DECC.

Supplier

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

Annex 1 – Adoption Criteria

The changes and additions highlighted in the table below reflect the changes and clarifications described in Section 5 of this document.

| | |
|---|---|
| Core Services <u>SMETS1 services as defined in the SEC</u> | Must support the provision of the core communications services by DCC relevant to SMETS1 meters (for example this excludes certain capabilities of SMETS2 meters related to load control and data on maximum and minimum demand) |
| Terms and Conditions | Reasonable Terms and Conditions, as defined below |
| Novation Clause | Satisfactory clause to enable adequate contract novation to the DCC, or an agreement at the time of enrolment to enter into a contract with the DCC on equivalent terms. <u>Where more than one contract is being novated, each novation does not need to occur on the same date.</u> |
| Termination | Reasonable term remaining on the contract, or a clause allowing rollover of the contract by mutual consent. The only right of termination by the communications provider must be for non-payment and this would be on similar terms to those envisaged for the CSP contracts Notice period for DCC terminating provision of communications to an individual connection point should be 3 months minimum <u>maximum</u> DCC will have immediate right of termination for material breach of contract, <u>consistent with the relevant provisions in the SEC</u> No right for the service provider to receive compensation at the natural expiry of the contract or in the event that the contract is terminated for default on the part of the service provider. <u>This criteria is to allow DCC to engage in commercially efficient re-negotiation and consolidation of contracts.</u> |
| Liability | Liability limit for communications provider proportionate to the value of the contract, as would be reasonably expected in this market <u>and is consistent with the relevant provisions in the SEC</u> |
| Loss | Contract addresses communications provider liability for loss and requirement for appropriate insurance cover <u>and is consistent with the relevant provisions in the SEC</u> |
| Exclusivity and restrictive terms | Any restrictive terms relating to the energy supplier and the communications provider will need to fall away at the point of novation |
| Data ownership and security | Contract includes an undertaking to not process data in a way that would put DCC in breach of the obligations that it owes to SEC parties under data protection legislation Contract imposes obligations upon the communications provider that are required to support DCC's discharge of the obligations it faces under the SEC in relation to end to end security Contract doesn't attempt to absolve the communications provider from liability with respect to security breaches; penalties sufficiently incentivise the communications provider to comply with security requirements |

| | |
|---|--|
| Confidentiality | Contract must contain confidentiality provisions consistent with the DCC's obligations under SEC, such as those that restrict use of information other than for the purposes of this agreement |
| Disaster recovery and business continuity and incident management | Contract has clear responsibilities and plans for Disaster Recovery. Also contains appropriate provisions with regard to risk management, business continuity and incident management <u>and these are consistent with the relevant provisions in the SEC</u> |
| Intellectual Property Rights | Contract must provide for the transfer, or royalty free licensing, of IPR for IP developed in the entering into or performance of the foundation contract |
| Service Level Agreement - Availability - Fault Resolution - Network performance | SLAs exist and as a minimum provide service level expectations and incentives related to network availability, resolution of faults and network performance characteristics that are commensurate with the needs of the core service Novated SLAs can be maintained under a DCC environment with penalties for poor performance |
| Transparency and compliance | The contract contains nothing that would put the DCC in breach of its regulatory obligations |

Annex 2 –SMETS Services for SMETS1 Meters

The following services from Table 5.1 of the SEC 2 Consultation will be required to be made available by DCC to all enrolled SMETS1 meters.

| Service Ref | Service Name | User Gateway Service |
|-------------|---------------------------------------|--|
| 1.1 | Update Import Tariff (prepayment) | Update the import tariff on a specified meter. |
| 1.1 | Update Import Tariff (credit) | Update the import tariff on a specified meter. |
| 1.2 | Update Price (prepayment) | Update the import price on a specified meter. |
| 1.2 | Update Price (credit) | Update the import price on a specified meter. |
| 1.5 | Adjust Meter Balance | Adjust the meter balance on a specified meter. |
| 1.6 | Update Payment Mode | Update the payment mode on a specified meter. |
| 2.1 | Update Prepay configuration | Update the prepayment configuration on a specified meter. |
| 2.2 | Top Up Device | Add prepayment credit to a specified meter. |
| 2.3 | Update debt | Update debt values on a specified meter. |
| 2.5 | Activate emergency credit | Activate emergency credit on a specified meter. |
| 3.2 | Restrict Access For Change Of Tenancy | Set the Restrict Data flag on a specified Device. |
| 3.3 | Clear Event Log | Clear the event log on a specified Device. |
| 4.1 | Read Instantaneous Import Registers | Read the specified import register or matrix on a specified meter as soon as the Command is received by the meter. |
| 4.2 | Read Instantaneous Export Registers | Read the specified registers on a specified meter as soon as the Command is received by the meter. |
| 4.3 | Read Instantaneous Prepay Values | Read the specified prepayment registers on a specified meter as soon as the Command is received by the meter. |

| Service Ref | Service Name | User Gateway Service |
|--------------------|---|---|
| 4.4 | Retrieve Billing Data Log | Return the specified billing data log entry on a specified meter. |
| 4.8 | Read Profile Data | Return the specified date range of profile data from the profile data log for a specified meter. |
| 4.10 | Read Network Data | Retrieve stored power quality data from a Device for a specified Device ID. |
| 4.11 | Read Tariff | Read the current tariff settings (including price, time of use matrix and time of use blocks) that are in use on a specified meter, in addition to the payment mode status. |
| 4.16 | Read Active Power Import | Retrieve the specified Active Power Import values on the specified meter. |
| 6.2 | Read Device Configuration | Retrieve the configuration data values for a specified meter. |
| 6.4 | Update Device Configuration (Load Limiting) | Configure the load limiting functionality on a specified meter, including, where specified, reset of the Load Limit Counter. |
| 6.5 | Update Device Configuration (Voltage) | Configure the voltage thresholds on a specified meter. |
| 6.6 | Update Device Configuration (Gas Conversion) | Configure the gas conversion values on a specified meter. |
| 6.7 | Update Device Configuration (Gas Flow) | Configure the behaviour of the valve within a specified meter under specified conditions. |
| 6.8 | Update Device Configuration (Billing Calendar) | Configure the billing calendar for a specified meter and to subsequently provide the billing data in accordance with the billing calendar that has been set up. |
| 6.11 | Synchronise Clock | Synchronise a specified meter's clock with the time used by the Associated Communication Hub Function. |
| 6.12 | Update Device Configuration (Instantaneous Power Threshold) | Configure the ambient power thresholds on a specified meter for display on an IHD. |
| 6.13 | Read Event Or Security Log | Retrieve the Event and/or Security logs for a specified meter. |
| 6.15 | Update Security Credentials | Replace the Security Credentials held on the specified Device with the credentials contained with the Service Request. |
| 6.23 | Update Security Credentials (CoS) | To replace the supplier Security Credentials on a specified Device with the Security Credentials contained within the Service Request. |
| 7.1 | Enable Supply | Enable electricity supply through a specified meter. |

| Service Ref | Service Name | User Gateway Service |
|--------------------|-----------------------|--|
| 7.2 | Disable Supply | Disable electricity/gas supply through a specified meter. |
| 7.3 | Arm Supply | Arm the supply on a specified meter such that it can be enabled by local interaction through that meter. |
| 7.4 | Read Supply Status | Return the current supply status at a specified meter. |
| 11.1 | Update Firmware | To send a firmware image to a specified Device for storage on the Device. |
| 11.2 | Read Firmware Version | To retrieve the firmware details that currently exist on a specified Device. |

Services requests to DCC, as laid out in Table 5.2 of the SEC 2 Consultation are not User-to-meter commands, and DCC will be required to build this capability into the SMETS1 enrolment project where matched by SMETS1 functionality.

Annex 3 – List of Respondents

Co-Operative Energy

Elster

Landis & Gyr

Consumer Futures

EdF

Scottish Power

Wales and West Utilities

Northern Powergrid

CMAP

EUA

First Utility

SSE

UK Power Networks

TMA

Good Energy

EoN

British Gas

DCC

SEC Panel

EDMI

Npower

EUK

Annex 4 – SMETS1 Amendments and Additional Queries

SMETS1 amendments:

| SMETS1 Requirement | Query | Government Response |
|---|---|---|
| <p>§ 4.3.1/ 5.3.1</p> <p>The Clock forming part of a GSMS/ ESMS shall be capable of operating so as to be accurate to within 10 seconds of UTC at all times.</p> | <p>The Clock forming part of GSMS/ ESMS shall be capable of operating so as to be accurate to within 10 seconds of UTC at all times <u>under normal operating conditions</u>.</p> | <p>This drafting reflects that time will be synchronised across the Wide Area Network.</p> |
| <p>§ 4.4.3</p> <p>A GSMS shall be capable of executing Commands immediately on receipt (“immediate Commands”)</p> | <p>A GSMS shall be capable of executing Commands immediately on receipt <u>within 30 minutes of their receipt</u> (“immediate Commands”).</p> | <p>This drafting reflects the likelihood that a gas meter will only ‘wake up’ every 30 minutes under normal operating conditions.</p> |
| <p>§ 4.4.3/ 5.4.4</p> <p>A GSMS/ ESMS shall be capable of executing Commands at a future date (“future dated Commands”).</p> | <p>A GSMS/ ESMS shall be capable of executing <u>certain Commands</u> at a future date (“future dated Commands”).</p> | <p>It is not necessary that all commands be executable at a future date.</p> |
| <p>6.3.2.2/ 6.3.3.2 Aggregate Debt</p> <p>The sum of all time-based and payment-based debt registers when GSMS/ ESMS is operating in Prepayment Mode.</p> <p>6.3.2.3/ 6.3.3.3 Aggregate Debt Recovery Rate</p> <p>The sum of the Time-based Debt Recovery rates on the GSMS/ ESMS operating in Prepayment Mode.</p> | <p>6.3.2.4/ 6.3.3.4 Aggregate Debt</p> <p>The sum of all time-based and payment-based debt registers <u>Either Aggregate Debt, or Time-based Debt and Payment-based Debt</u> on the GSMS/ ESMS operating in Prepayment Mode.</p> <p>6.3.2.5/ 6.3.3.5 Aggregate Debt Recovery Rate</p> <p>The sum of the Time-based Debt Recovery rates <u>Either Aggregate Debt recovery rate or each Time-based Debt Recovery rate</u> on the GSMS/ ESMS operating in Prepayment Mode.</p> <p><u>7.1.1.3 Aggregate Debt</u></p> <p><u>The sum of all Time-based and Payment-based Debt registers on a GSMS or ESMS operating in Prepayment Mode.</u></p> | <p>It is possible that presenting the information in disaggregated form will be more useful to the consumer.</p> |

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| <p>§ 4.4.3/ 5.4.4</p> <p>A future dated Command shall be capable of being cancelled by an Authorised party</p> | <p>Is overwriting considered a valid means of cancellation</p> | <p>The requirement is that the command is cancelled; how this is achieved is not defined and so any mechanism should be compliant.</p> |
| <p>§ 4.4.3/ 5.4.4</p> <p>A GSMS/ ESMS shall be capable of sending an Outcome including the reason for failure of a future dated Command in the event that it has been over-written or cancelled.</p> | <p>This is open to interpretation and these have to be confirmed as events in the HAN Companion Specification and ensure they are all clearly mapped to ZigBee SEP 1.2 and DLMS COSEM respectively</p> | <p>The drafting reflects the intent that notification of the cancellation of a future dated command is sent. Detailed implementation will be dependent on the communications standards used and so is not defined in SMETS1. These will be defined in the GBCS for SMETS2 devices.</p> |
| <p>§ 4.4.3.11/5.4.4.15</p> <p>A Command to mark configuration and/or operational data as restricted so as to prevent its disclosure on its HAN Interface and its User Interface.</p> | <p>Does this relate to data displayed on the user interface and on access to information after a change of tenancy – these are separate commands in SMETS2.</p> | <p>The requirement covers both change of tenancy and the display of consumer's personal data on the User Interface where their meter is in a shared space. However, this could be delivered by separate commands.</p> |
| <p>§ 5.3.7</p> <p>An ESMS shall be capable of applying Time-of-use Pricing</p> | <p>How should local time be treated?</p> | <p>This is an implementation decision for SMETS1.</p> <p>SMETS2 requires additional capabilities relating to Local Time adjustments.</p> |

Additional consultation queries to SMETS1 requirements:

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